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VIA CSM DROPBOX

Heather Halsey
Executive Director
Commission on State Mandates
980 9th Street, Suite 300
Sacramento, CA 95814

Re: County of San Diego, Cities of Carlsbad, Del Mar, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, Chula Vista, Coronado, El Cajon, Encinitas, Escondido, La Mesa, National City, Oceanside, San Diego, and Vista Comments to Revised Draft Proposed Decision and Parameters and Guidelines, Test Claim 07-TC-09-R

Dear Ms. Hasley:

The County of San Diego and the Cities of Carlsbad, Del Mar, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, Chula Vista, Coronado, El Cajon, Encinitas, Escondido, La Mesa, National City, Oceanside, San Diego, and Vista (collectively, “Municipal Claimants”)¹ respectfully comments in response to the Revised Draft Proposed Decision and Parameters and Guidelines for Test Claim 07-TC-09-R (“Revised Proposed Decision”). The Municipal Claimants appreciate the time and significant work that the Commission on State Mandates (“Commission”) has invested over the past many years on Test Claim 07-TC-09-R (“Test Claim”).² The Municipal Claimants submit these comments in response to the Revised Proposed Decision.

I. BACKGROUND

The Municipal Claimants, County Regional Airport Authority, and the San Diego Unified Port District (“Co-Permittees”) were subject to Order R9-2007-001, National Pollutant Discharge Elimination System (“NPDES”) No. CAS0108758 (“2007 Permit”) issued by the California Regional Water Quality Control Board, San Diego Region. The 2007 Permit required several

¹ The term “Co-Permittee” refers to County of San Diego, Cities of Carlsbad, Del Mar, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, Chula Vista, Coronado, El Cajon, Encinitas, Escondido, La Mesa, National City, Oceanside, San Diego, Vista, San Diego County Regional Airport Authority, and the San Diego Unified Port District.

² The Test Claim is a challenge to the requirements of Order No. R9-2007-0001, issued by the San Diego Regional Water Quality Control Board (“2007 Permit”).

actions for this Commission and two Court of Appeal decisions to determine that state mandates are subject to subvention in accordance with the California Constitution. These mandated actions are:

- Reporting on street sweeping and conveyance system cleaning (Part J.3.a.(3)(c)(iv)-(viii), (x)-(xv));
- Conveyance system cleaning (Part D.3.a.(3)(b)(iii));
- Educational component (D.5.a.(1), D.5.a.(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii.-vi.), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3));
- Watershed activities and collaboration in the Watershed Urban Runoff Management Program (Part E.2.f & E.2.g);
- Regional Urban Runoff Management Program (Parts F.1., F.2. & F.3);
- Program effectiveness assessment (Parts I.1 & I.2);
- Long-term effectiveness assessment (Part I.5) and
- All permittee collaboration (Part L.1.a.(3)-(6)).³

To get reimbursed and streamline the reimbursement process, the Municipal Claimants proposed a reasonable reimbursement methodology (“Proposed RRM”) in a comment letter on the draft proposed decision and parameters and guidelines (“RRM Comment Letter”).

In response, the Water Boards, State Controller’s Office, and Finance each drafted comments on the Draft Proposed Decisions Parameters and Guidelines for Test Claim 07-TC-09-R (“State Responses”), including questions and comments on the proposed RRM.

The Municipal Claimants submitted a rebuttal to address the issues raised in the State Responses (“Rebuttal”). The Rebuttal sought to clarify how an RRM worked so that it was clear what information would be submitted by the Co-Permittees to get the reimbursement and made some minor revisions to the RRM in order to address some issues raised by the State Responses.

The Commission issued the Revised Proposed Decision that rejected the RRM in its entirety. The Commission primarily rejected the Proposed RRM because the Commission determined that the evidence did not support the Proposed RRM or that the request was too broad and covered activities that were not reimbursable.⁴

³ Revised Draft Parameters and Guidelines, 2-3.

⁴ Revised Draft Proposed Parameters and Guidelines, IV.E.2.

The Municipal Claimants submit this comment letter to address the concerns raised by the Commission in the Revised Proposed Decision to show why the RRM's are proper and supported by law.

II. THE MUNICIPAL CLAIMANTS ARE REQUESTING APPROVAL OF THE FORMULAS

As stated in the Rebuttal, Municipal Claimants are asking for approval of the formulas each Co-Permittee⁵ would use to request reimbursement for the mandated activities or programs⁶. Commission approves the Proposed RRM's, the Co-Permittees will then submit information to complete the specific formula and request the appropriate reimbursement. Only after this additional information is submitted will the disbursement of the subvention occur.

In several places in the Revised Proposed Decision, the Commission notes that previous Co-Permittee submittals have suggested that they are due to receive very large total reimbursements. Although the Co-Permittees provided the estimated total sum in the RRM Comment Letter, the Municipal Claimants reiterated and clarified in the Rebuttal that the Municipal Claimants are seeking adoption of the formulas.

Once the formulas are adopted, each Co-Permittee will need to submit the inputs to the formulas and seek its subvention for the mandated activities. Appendix A to John Quenzer's Declaration in support of the Rebuttal has tables that explain what information the Co-Permittees will need to enter to get the reimbursement allocation.

III. DENYING THE RRM IS CONTRARY TO THE RRM STATUTE

The statutory process for reimbursement and its legislative history demonstrate that the Legislature intended the development of reimbursement methodologies to be as simple as possible. The Municipal Claimants' Proposed RRM satisfied all statutory requirements. The Commission's rejection of the Proposed RRM is contrary to the legislative intent of the reasonable reimbursement methodology ("RRM") statute.

In 1979, Proposition 4 added Article XIII B to the California Constitution which, in relevant part, requires the State to reimburse local governments for any new programs or higher levels of service that the State Legislature or agency imposes on them.⁷ Subsequent procedures for reimbursing claims enacted by the Legislature and the legislative history surrounding those procedures indicate that the Legislature intended these Constitutionally mandated reimbursements to be as simple for local governments as possible.

⁵ The Municipal Claimants understand that the Port of San Diego and San Diego Airport are contending they are able to recover, since they are Co-Permittees and are subject to the mandated activities. The Municipal Claimants therefore use Co-Permittee here to refer all parties subject to the 2007 Permit and the mandated activities.

⁶ Rebuttal, Section I.

⁷ Cal. Const. art. 13B, § 6(a); "An Analysis of Proposition 4: The Gann "Spirit of 13" Initiative," Cal. Legislative Analyst's Office, Report No. 79-20 (1979).

In 2004, the Legislature found that the State's then-existing system for reimbursing local governments for the cost of state-mandated local programs was ineffective and could not "adequately and consistently resolve the complex legal questions involved in the determination of state-mandated costs[.]"⁸ To address these findings and streamline the documentation and reporting process for mandates, the Legislature created the RRM process and enacted Government Code section 17518.5 to allow local governments to be reimbursed based on "general allocation formulas, uniform cost allowances, and other approximations of local costs mandated by the state, rather than detailed documentation of actual local costs."⁹ When the Legislature created the RRM process it intended the reimbursement process to be simple for local governments like the Municipal Claimants. An RRM entirely in compliance with section 17518.5, like the one Municipal Claimants submitted, should be enough for reimbursement from the Commission.

In a report published in 2007, the Office of the Legislative Analyst ("LAO") identified several difficulties with claiming reimbursement under the mandate process, including: (1) the complexity of measuring the marginal cost to carry out additional requirements to ongoing local programs; (2) the requirement on "local governments to document their actual costs to carry out each element of" a mandate; (3) the documentation required to file claims was complex and would lead to disputes with the State Controller's Office.¹⁰ To address these issues, the LAO recommended that section 17518.5 be amended to "[e]xpand the use of unit-based and other simple claiming methodologies by clarifying the type of easy-to-administer methodologies[.]"¹¹ Section 17518.5 was then amended to state that an RRM "shall be based on cost information from a representative sample of eligible claimants, information provided by associations of local agencies and school districts, or other projections of local costs."¹² By updating the RRM process, the Legislature sought to avoid conflicts over reimbursement claims; the Legislature simply wants reimbursement methodologies to comply with the clear requirements set forth in state statute. Here, the Proposed RRM meets the statutory requirements because it was based on a representative sample of the eligible claimants as required by Government Code section 17518.5(b) as provided in the RRM Comment Letter and explained in more detail Rebuttal.

The Proposed RRM is an efficient and fair way to permit the Municipal Claimants to finally receive the money that the California Constitution, this Commission and two Courts of Appeal have found they are entitled to receive. The activities required by the 2007 Permit that are challenged in the Test Claim occurred starting in 2007. The State Responses and Commission staff indicate that receipts are the only reasonable way to handle the reimbursement. The Municipal Claimants wish to remind the Commission again that due to the State's decision to contest all possible legal issues through years of unnecessary litigation, fourteen years have passed since the 2007 Permit and its unfunded mandates were adopted. Requiring Municipal Claimants to come up with receipts fourteen years after the work began is unreasonable in light of the RRM

⁸ Cal. Gov't Code § 17500; 2004 Cal. Legis. Serv. Ch. 890 (A.B. 2856).

⁹ Cal. Gov't Code § 17518.5(d); 2004 Cal. Legis. Serv. Ch. 890 (A.B. 2856).

¹⁰ Office of the Legislative Analyst, "State-Local Working Group Proposal to Improve the Mandate Process," June 21, 2007, page 2.

¹¹ *Id.* at 3.

¹² Cal. Gov't Code § 17518.5(b).

and improperly incentivizes the State to continue challenging unfunded mandates. The total cost of the 2007 Permit's mandated activities does not change the fact that these activities were required and that the Municipal Claimants were not properly reimbursed for these activities. Using the RRM process would be a fair way to finally provide the Municipal Claimants with reimbursement for funds that the State required them to expend years ago.

For these reasons, the rejection of the Proposed RRM is contrary to the legislative intent of the RRM statute and the stated legislative goals of streamlining the reimbursement process.

IV. THE EVIDENCE PROVIDED IS PROPER AND CAN BE RELIED UPON FOR THE ADOPTION OF THE RRM

The Commission asserted that there were several evidentiary issues with the documents relied upon by the Municipal Claimants in creating the RRM. The Parameters and Guidelines articulate that the 2005 State Surveys are inadmissible because it is not relevant, the 2011 Surveys cannot be relied upon because they are hearsay. Neither contention is correct because administrative proceedings need not be conducted according to technical rules of evidence.¹³ Even if they were, the rules of evidence hold that the items are relevant and admissible.

Additionally, the Commission asserts that the JRMP Annual Reports cannot be used as submitted without detailed citations to the record. The Municipal Claimants maintain that all the information cited was necessary to explain the context of the Proposed RRM. With that established, the Municipal Claimants have provided citations to the individual annual reports.

A. The 2005 State Surveys are Relevant

Relevant evidence is evidence having any tendency in reason to prove or disprove any disputed fact that is of consequence to the determination of the action.¹⁴ The test of relevance is whether the evidence tends, logically, naturally, and by reasonable inference' to establish material facts.¹⁵ "The most accepted test of relevancy is: Does the evidence offered render the desired inference more probable than it would be without the evidence?"¹⁶

In the context of services rendered, evidence of fees charged by others in the community for similar services is relevant.¹⁷ The value of services is measured by determining what would be charged by other persons in the community with experience and ability similar to the person who rendered the services.¹⁸

¹³ *Floresta, Inc. v. City Council of City of San Leandro*, 190 Cal. App. 2d 599, 608 (Ct. App. 1961).

¹⁴ Evid. Code, § 210.

¹⁵ *People v. Nelson*, 43 Cal. 4th 1242, 1266 (2008) (internal cites omitted).

¹⁶ *Ruiz v. Minnesota Mining & Mfg. Co.*, 15 Cal. App. 3d 462, 468 (Ct. App. 1971).

¹⁷ *Martino v. Denevi*, (1986) 182 CA3d 553, 558.

¹⁸ *Shaffer v. Sup.Ct. (Simms)* (1995) 33 CA4th 993, 1001-1002.

Here, the 2005 State Surveys are relevant because they provide information about the costs of other cities in California. Specifically, the Municipal Claimants explained:

The Municipal Claimants provided the 2005 State Survey to compare the unit costs supported by the 2005 State Survey and the those proposed under the RRM. To reiterate, the 2005 State Survey values are not being directly used in the proposed reimbursement calculation approach. The fact that the State Survey values for other Southern California municipalities from a few years before the period used to calculate Co-Permittees' proposed standard unit costs are comparable to the unit costs calculated above based on data from Co-Permittees in the San Diego region supports that the unit costs are reasonable estimates.¹⁹

The purpose of including this information was to provide evidence of the cost of service others in the community provided for a similar service. This information is relevant in confirming that the cost of the services is reasonable. Given that Courts have found evidence of this type is relevant and admissible, the 2005 State Surveys are relevant and should be included in consideration of the RRM.

It is improper to determine that the 2005 State Surveys are not relevant because the data is mostly not from cities in San Diego County, and the information relates to the 2001 Permit. First, the 2005 State Surveys data is about cleaning storm drains, which is the same service described in the Proposed RRM. Second, as explained in both the RRM Comment Letter, Rebuttal, and below, the increased level of services was not a change in the unit cost of the storm drains or linear municipal separate storm sewer system ("MS4") cleaned but instead the amount of each that was required to be cleaned.

B. Reliance on the 2011 Surveys Will Satisfy the Substantial Evidence Standard if the RRM Is Challenged in Court

Government Code section 17518.5 defines an RRM as a formula for reimbursing local agencies and school districts for costs mandated by the state, as defined in Section 17514.²⁰ The RRM "shall be based on general allocation formulas, uniform cost allowances, and other approximations of local costs mandated by the state, rather than detailed documentation of actual local costs."²¹ To create the RRM, one should use "cost information from a representative sample of eligible claimants, information provided by associations of local agencies and school districts, or other projections of local costs."²² An RRM may be developed and proposed by the claimant.²³ There are no exact guidelines for how to prepare information prospectively or gather information retroactively for RRM, nor is there a stated preferential method of calculation or standard for the

¹⁹ Rebuttal, III.B.

²⁰ Gov. Code § 17518.5.

²¹ Gov. Code § 17518.5(d).

²² Gov. Code § 17518.5(b).

²³ Gov. Code § 17518.5(e)(4).

kind of data and evidence used to arrive at the reimbursement methodology conclusion. The language of the Code uses phrases such as “whenever possible,” “shall consider,” and “may be developed by any of the following,” implying that there are no hard parameters surrounding the process for the constitutionally mandated reimbursement.²⁴

Additionally, the California Code of Regulations (“CCRs”) that support the RRM statutes explain what type of information can and cannot be used to support and create an RRM.²⁵ The CCRs contemplate that surveys should be used to support an RRM by describing what survey results are not considered admissible and able to support an RRM.²⁶ Given that the 2011 Surveys are not of the type that is prohibited, the surveys should be accepted as written and allowed to support the RRM.

Even if the substantial evidence standard is the applicable standard, the 2011 Surveys should be admissible and relied upon in making the RRM. Substantial evidence is more than a mere scintilla and is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.²⁷ There must be enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.²⁸ Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.²⁹

Here, the information provided in the 2011 Surveys can be relied upon to support the Proposed RRM. The 2011 Surveys include enough relevant information to support the inferences from D-max. Together, these are sufficient to support that the Proposed RRM is fair, reasonable, and supported by the evidence provided.

The Commission primarily determined that the 2011 Surveys cannot be relied upon because they are hearsay. Hearsay is an out of court statement being offered for its truth.³⁰ Hearsay rules are treated differently in administrative proceedings and are not automatically excluded.³¹ Courts have noted that some evidence need not be sworn because of the “relaxation of the evidentiary rules applicable in administrative hearings.”³² In fact, California relevance standard trumps the general inadmissibility of hearsay if it is the type of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of a

²⁴ Gov. Code § 17518.5.

²⁵ Cal. Code Regs. Tit. 2, § 1183.10(b)(2).

²⁶ *Id.*

²⁷ *Kyung Park v. Holder* (9th Cir. 2009) 572 F.3d 619, 624 .

²⁸ *Id.*

²⁹ Cal. Code Regs. Tit. 14, § 15384

³⁰ Evid. Code, § 1200.

³¹ See Gov. Code, § 15513(d) (“[h]earsay evidence may be used for the purpose of supplementing or explaining other evidence but over timely objection shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. An objection is timely if made before submission of the case or on reconsideration.”); see also *Berg v Davi* (2005) 130 CA4th 223.

³² *Petricka v. Department of Motor Vehicles* (2001) 89 Cal.App.4th 1341, 1348 [citing *Lake v. Reed* (1997) 16 Cal.4th 448, 462].)

rule that might make it improper to admit over objections in civil cases.³³ Administrative hearsay is admissible for the limited purpose to supplement or explain other evidence, but not by itself sufficient to support a finding unless a hearsay exception applies.³⁴ Hearsay that would be admissible over objection in civil court is equally admissible in administrative proceedings.³⁵ Such evidence would be sufficient to support a finding, not just to supplement or explain other evidence.³⁶

Here, the 2011 Surveys are admissible under the public records hearsay exception. Because of this, the Commission can substantively rely on the 2011 Surveys to adopt the RRM.

Under the public records hearsay exception, evidence of a writing made as a record of an act, condition, or event is not made inadmissible by the hearsay rule when offered in any civil or criminal proceeding to prove the act, condition, or event if all of the following applies: (a) the writing was made by and within the scope of duty of a public employee; (b) the writing was made at or near the time of the act, condition, or event; and (c) the sources of information and method and time of preparation were such as to indicate its trustworthiness.³⁷

Determining whether a public record was made at or near the time of the event or act is not to be judged “by arbitrary or artificial time limits, measured by hours or days or even weeks.”³⁸ Rather, the court must account for practical considerations including the nature of the information recorded and the immutable reliability of the sources from which that information was drawn.³⁹ Normally, courts look at the span of time between the transaction and the entry of that information to determine whether a danger of inaccuracy by lapse of memory exists.⁴⁰

Courts have clarified purpose of this hearsay exception “is to eliminate the calling of each witness involved in the preparation of the record and substitute the record of the transaction instead.”⁴¹ The trustworthiness requirement is established by showing that the written report is based upon the observations of the public employees who had a duty to observe the facts and report and record them correctly.⁴²

The 2011 Surveys satisfies these three elements. First, the surveys were offered to the employees while on the job and pertained to the scope of their employment. The information

³³ Gov. Code, § 15513(c); see also, *Furman v DMV* (2002) 100 CA4th 416 (while the DMV did not establish driver had excessive blood alcohol content on the hearsay lab report, the document was admitted); see also *Petricka v DMV* (2001) 89 CA4th 1341, 1348 (unsworn lab report was admissible.)

³⁴ Gov. Code, §15513(d)

³⁵ *Stearns v Fair Employment Practice Comm’n* (1971) 6 C3d 205, 210 n2; see also *Fox v San Francisco Unified Sch. Dist.* (1952) 111 CA2d 885, 891 (school records.)

³⁶ Gov. Code, §15513(d).

³⁷ Evid. Code, § 1280.

³⁸ *People v. Martinez* (2000) 22 Cal.4th 106, 128.

³⁹ *Ibid.*

⁴⁰ *Ibid.*; see also 2 McCormick on Evidence (4th ed.1992) § 289, p. 273, fn. Omitted.

⁴¹ *Gananian v. Zolin* (1995) 33 Cal.App.4th 634, 639 [quoting *County of Sonoma v. Grant W.* (1986) 187 Cal.App.3d 1439, 1451] [internal citations omitted].)

⁴² *Id.*; see also *Shea v. Department of Motor Vehicles* (1998) 62 Cal.App.4th 1057, 1061.

contained within those surveys was compiled by a supervisor of those employees whose employment duty was to oversee, manage, and compile such information.

Second, the 2011 Surveys satisfy that time requirement under the public records exception. The surveys were filled out during the time when the Municipal Claimants were completing the requirements of the 2007 Permit and thus were made at the time of the event. For purposes of establishing Evidence Code section 1280(b), the time of the event in this case is constituted by the time period in which the completion of the requirements of the 2007 Permit. As such, the employees made the recording *at* the time of the event.

Third, the information is trustworthy because it was written by a public employee who had a duty to observe the facts and report and record them correctly. The supervisors who completed these surveys had a duty to manage, oversee, and compile data such as the 2011 Survey.

Therefore, the Surveys are admissible under the public records exception.

C. The Municipal Claimants have provided additional citations to each data point from the JRMP annual reports

The documentation needed to create the RRM was previously submitted to the Commission.⁴³ The Municipal Claimants provided references to the relevant document types for the Commission to understand the basis and evidence supporting the RRM. These documents were submitted in the Volumes attached to the RRM Comment Letter.

The Municipal Claimants referenced large sections of the Volumes to provide context for the activities performed and how those activities fit into the RRM. With this established, the Municipal Claimants understand the Commission's request for specific page sites to the numbers used to create the RRM and have provided that information. The Municipal Claimants wish to impress upon the Commission the importance of those other pages that provides the background and context for each number.

V. REBUTTAL TO EACH RRM FORMULA

The documentation needed to create the RRM was previously submitted to the Commission. In the Co-Permittees comment letter to propose the RRM and the rebuttal, Municipal Claimants provided references to the relevant document types for the Commission to understand the basis and evidence supporting the RRM. These documents were submitted in the Volumes attached to the Municipal Comments.

Although the Municipal Claimants believe that the provided information was sufficient, the Municipal Claimants have gotten declarations from Co-Permittee staff members that were employed by the Co-Permittees during the 2007 Permit ("Co-Permittee Declarations"). The Municipal Claimants were able to get declarations from the cities of Chula Vista, Coronado, Escondido, National City, Vista, Solana Beach, and El Cajon. Most of these Co-Permittee

⁴³ See footnote 12, above, relating to the County 2011 County Survey 2.

Declarations have numbers that are identical to the 2011 Surveys, however, the cities of Chula Vista and Vista have slightly different information that resulted in revisions to the RRM. The declarations are by an employee charged with overseeing, managing, and ensuring the work was properly conducted and met application 2007 Permit Requirements. The declarations contain statements under the penalty of perjury that the employee has read and is familiar with the 2007 Permit and the requirements imposed by it. The Co-Permittee Declarations detail how the declarant has personal knowledge of the costs through his or her involvement and responsibility for accounting for the in-house personnel and non-personnel costs associated with inspecting and cleaning the city's municipal separate storm sewer system. The declarant personal knowledge of the time and resources devoted to these tasks for every year stated, including salary and cost of each employee, is established by both the declarant's position and responsibility of tracking of time and resources devoted by each employee, and the reading and familiarity of the staff time through various required annual reports prepared by the city in the regular course of business. Along with the RRM revisions made in response to the Revised Proposed Decision, the Municipal Claimants have provided a version of the RRM that only includes information from these Co-Permittee Declarations where the 2011 Surveys were previously the primary evidentiary support.

In response to the Revised Proposed Decision, the Municipal Claimants have made revisions to the RRM and tried to better explain how the evidence supports the Proposed RRM. The Municipal Claimants wish to reiterate that this is a Proposed RRM. If the RRM gets adopted, the Municipal Claimants will still need to submit information to receive the reimbursement. Some of the information that will be submitted by the Co-Permittees will be the information that is needed to differentiate between the activities that are considered a higher level of service. No citations are to be provided for information that would be submitted by each Co-Permittee in the reimbursement submission.

For convenience, a revised table with the proposed RRM both just as formulas and with the set unit costs has been included.

A. Revisions to RRM for Reporting on Street Sweeping and Conveyance System Cleaning (Part J.3.a.(3)(c) (iv)-(viii), (x)-(xv))

The Municipal Claimants proposed an RRM for reporting on street sweeping and conveyance system cleaning.⁴⁴ The Commission rejected this Proposed RRM for a number of reasons including that the Proposed RRM included costs that were not supported by sufficient evidence to be deemed reimbursable costs by the Commission, the Proposed RRM was based on evidence that was from outside the 2007 Permit, and the 2011 Surveys could not support the Proposed RRM.⁴⁵ The Municipal Claimants dispute that these items invalidate the Proposed RRM. With this established, the Municipal Claimants are willing to modify the Proposed RRM to exclude items that the Municipal Claimants believe should be included.

⁴⁴ Rebuttal, III.A.

⁴⁵ Revised Draft Proposed Parameters and Guidelines, IV.E.2.a.

The costs included in the Proposed RRM only include costs that are necessary to complete the mandatory reporting on street sweeping and conveyance system cleaning. The Commission noted that the costs of “developing policies and procedures, or developing, updating and implementing data tracking and analysis methods and procedures for reports to the Regional Board” have been included in the surveys used to support the Proposed RRMs for reporting, but the Commission asserts that is not clear why those activities are necessary to comply with the mandate.⁴⁶

The activities described above are necessary to comply with the mandate and therefore, should be considered reimbursable.⁴⁷ To complete reporting for street sweeping and conveyance system cleaning as required by the 2007 Permit, Co-Permittees must identify the data that will be needed for reporting, develop procedures to collect and record that data, and implement those procedures such that the necessary data is recorded and is available to be compiled for reporting.⁴⁸ When an annual report is required, Co-Permittees need to develop and implement procedures across their organizations to collect the necessary data.⁴⁹ A reporting mandate imposes both data tracking system development and implementation, which is an ongoing effort, and the actual preparation and submittal of the required report, which occurs over a limited portion of each fiscal year.⁵⁰ For additional detail on how the requirements in the 2001 Permit and 2007 Permit differ and how those record keeping requirements resulted in additional procedures to collect data and pathways to implementing these procedures, Paragraph 14.b. of John Quenzer’s Declaration (“Quenzer Dec.”) provides specific examples of the differences.⁵¹

With this established, the Municipal Claimants acknowledge that the 2001 Permit required some amount of conveyance system cleaning reporting and suggest reducing the unit cost of conveyance system cleaning reporting to \$2,900.83 to address this overlap.⁵² The unit cost of street sweeping reporting remains unchanged at \$6,143.67 as this was not required under the 2001 Permit.⁵³

In the Proposed RRM for reporting on street sweeping and conveyance system cleaning, it was proper to include information from FY 2007-2008. Because the first JURMP annual report was due in September 2008, the data reported on was from 2007-2008.⁵⁴ As such, the 2007-2008 costs should be reimbursable. However, if the Commission determines that the 2007-2008 data should not be included in creating the RRM, the unit cost for reporting on street sweeping without the procedure development and implementation would be \$6,234.00 and the unit cost for reporting

⁴⁶ Revised Draft Proposed Parameters and Guidelines, p. 143.

⁴⁷ Quenzer Dec. ¶14.b.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² Quenzer Dec. ¶14.c.

⁵³ Quenzer Dec. ¶14.d.

⁵⁴ Quenzer Dec. ¶14.b.

on conveyance system cleaning without the procedure development and implementation would be \$2,943.50.⁵⁵

In the Proposed RRM for reporting on street sweeping and conveyance system cleaning, it was proper to include information from the 2011 Surveys as described above. If the Commission determines that the 2011 Surveys cannot be relied on, the unit cost for reporting on street sweeping from 2007-2008 through 2009-2010 is \$3,596.33, and the unit cost for reporting on conveyance system cleaning is \$8,604.67.⁵⁶ If the Commission determines that the 2011 Surveys cannot be relied on and the FY 2007-2008 cannot be included, the unit cost for reporting on street sweeping from is \$3,649.25, and the unit cost for reporting on conveyance system cleaning is \$8,731.25.⁵⁷

B. Revisions to RRM for Conveyance System Cleaning (Part D.3.a.(3)(b)(iii))

The Municipal Claimants proposed an RRM to cover the local costs mandated by the state for conveyance system cleaning.⁵⁸ The conveyance system includes the inlet or storm basins, pipes, and channels. The Commission rejected the catch basin and inlet cleaning Proposed RRM for a number of reasons, including that the proposed RRM included costs that were not supported by sufficient evidence to be deemed reimbursable costs by the Commission, the Proposed RRM was based on evidence that was from outside the 2007 Permit and the 2011 Surveys could not support the Proposed RRM.⁵⁹ The Commission rejected the channel and pipe cleaning portion of the Proposed RRM on the grounds that there was insufficient evidence to support this Proposed RRM and noted that the Proposed RRM seemed improper given the 2011 Survey's instructions to not include costs for channel cleaning.⁶⁰ In both Proposed RRM, the Commission was concerned that the RRM does not consider that only items that are a higher level of services should be reimbursed.⁶¹ The Municipal Claimants dispute that these items invalidate the Proposed RRM. With this established, the Municipal Claimants are willing to modify the Proposed RRM to exclude items that the Municipal Claimants believe should be included and have revised the RRM to include only information from the Co-Permittee Declarations described above and 2007-2008 JRMP Annual Reports; the 2011 Surveys were not used. Because of the change in the data set, the pipe and channel cleaning portion of the RRM has been combined into a linear MS4 cleaning cost.

The Proposed RRM for conveyance system cleaning does not include costs that have been deemed not reimbursable. Specifically, the Proposed RRM does not include costs for inspections as only the cleaning costs were used.⁶² Additionally, the Proposed RRM did not include parking signs and enforcement or vehicle costs as the instructions from the 2011 Surveys specifically

⁵⁵ Quenzer Dec. ¶¶ 14.c.-14.d.

⁵⁶ Quenzer Dec. ¶¶ 14.c.-14.d.

⁵⁷ Quenzer Dec. ¶¶ 14.c.-14.d.

⁵⁸ Rebuttal Quenzer Dec. ¶ 13.

⁵⁹ Revised Draft Proposed Parameters and Guidelines, IV.E.2.a.

⁶⁰ Revised Draft Parameters and Guidelines, IV.E.2.b.

⁶¹ *Id.*

⁶² Quenzer Dec. ¶15.b.i.

request that this information is not included.⁶³ In this Proposed RRM, the Municipal Claimants included the cost for training to clean the catch basin cleaning as this is necessary to complete the required cleanings.⁶⁴ If the costs for training and reporting are excluded, the unit cost for cleaning a catch basin from 2007-2008 through 2009-2010 is \$162.32^{65, 66}

The Proposed RRM for conveyance system cleaning should include information from FY 2007-2008. Because the first JURMP annual report was due in September 2008, the data reported on was from 2007-2008.⁶⁷ As such, the 2007-2008 costs should be reimbursable. Additionally, the Municipal Claimants expect that the costs of conveyance system cleaning between the 2001 and 2007 Permits to be similar.⁶⁸ The activity itself is nearly the same and there were no changes to requirements under the 2007 Permit that would make the unit cost of cleaning one catch basin less than it was under the 2001 Permit.⁶⁹ Therefore, it is reasonable to use data from the portion of 2007-2008 that was under the 2001 Permit to develop the unit cost.⁷⁰ The higher level of service required between the 2001 and 2007 Permit was the amount of inlets and storm drains that needed to be cleaned.⁷¹ For these reasons, the 2007-2008 street sweeping and conveyance system cleaning should be included in the RRM. However, if the Commission determines that the 2007-2008 data should not be included in creating the Proposed RRM, the unit cost for cleaning the catch basins with the training and reporting costs excluded would be \$154.68.⁷²

In the Proposed RRM for conveyance system cleaning, it was proper to include information from the 2011 Surveys as described above. If the Commission determines that the 2011 Surveys cannot be relied on, the unit cost for conveyance system cleaning from 2007-2008 through 2009-2010 is \$89.64, and the unit cost for conveyance system cleaning is \$88.94.⁷³

The Municipal Claimants are requesting the Commission to consider and adopt RRMs for linear MS4 that were developed based on analyzing data from Co-Permittee Declarations and 2007-2008 JRMP Annual Reports.⁷⁴ The Municipal Claimants understand that the previously submitted documents do not expressly include this information, but given the nearly twenty years since the beginning of the permit term, the Proposed RRM is proper to adequately reimburse the Municipal Claimants.⁷⁵ The Municipal Claimants have revised this RRM to combine the costs associated with channels and pipes to get a singular linear MS4 RRM.⁷⁶ The proposed calculation approach is to subtract the total catch basin cleaning and inspection costs from the overall

⁶³ Quenzer Dec. ¶15.b.ii.

⁶⁴ *Id.*

⁶⁵ This RRM includes updated cost numbers from the cities of Chula Vista and Vista.

⁶⁶ Quenzer Dec. ¶ 15.d. The training was a separate line item cost in the 2011 Surveys.

⁶⁷ Quenzer Dec. ¶ 15.b.iii.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ Quenzer Dec. ¶ 15.d.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ Quenzer Dec. ¶ 15.e.

⁷⁵ *Id.*

⁷⁶ *Id.*

conveyance system cleaning costs, with the remainder then being the linear MS4 cleaning costs. Conveyance system cleaning programs generally consist of these three activities, so it is reasonable to estimate linear cleaning costs by subtracting the costs of catch basin inspections and cleaning.⁷⁷ The total linear cleaning costs were then divided by the linear distance of pipe or channel cleaned to get a unit cost per linear foot cleaned. The proposed unit cost is the median value of this data set which is \$3.02 per linear foot.⁷⁸

The Municipal Claimants wish to clarify how this Proposed RRM would work. After the Proposed RRM is adopted, the Co-Permittee making the claim would need to seek reimbursement based on the RRM. To do this, the Municipal Claimants will need to provide the number of storm drains or inlets and the linear feet of linear MS4 cleaned and explain how the amount provided consists of the higher level of service from the 2001 Permit.⁷⁹ Therefore, each Co-Permittee will need to provide supporting documentation to demonstrate that only cleanings that meet these criteria are being claimed for reimbursement.⁸⁰

C. Revisions to RRM for the Educational Component (Parts D.5.a.(1), D.5.a.(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii.-vi.), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3))

The Municipal Claimants proposed an RRM for the education component, which included regional outreach shared costs for the residential education program development and implementation and jurisdictional educational programs.⁸¹ The Commission rejected this Proposed RRM because it was unclear whether the residential education program RRMs duplicated reimbursement or covered items that were not considered reimbursable, and the jurisdictional educational program RRM was too broad and would cover items that were not considered reimbursable.⁸²

The residential education program portion of the RRM covers the items that were reimbursable under the 2007 Permit.⁸³ This portion of the RRM is separate from the jurisdictional educational activities.⁸⁴ The Co-Permittees retained a consultant to communicate with the public and complete the required residential activities while the jurisdictional educational activities were done in house.⁸⁵ There is no overlap with the jurisdictional educational activities as only the regional program activities were completed via contractor.⁸⁶ The Municipal Claimants made a few minor corrections to the County Education RRM such that only the costs associated with the Regional Sources Workgroup Task 3: Regional Residential Education Program are included.⁸⁷ A more detailed table of the costs used to develop the residential educational program Proposed RRM

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ Rebuttal, I.

⁸⁰ *Id.*; Quenzer Dec. ¶¶ 15.d.-e.

⁸¹ Rebuttal Quenzer Dec. ¶ 14.

⁸² Revised Proposed Decision, IV.C.4.

⁸³ Quenzer Dec, ¶16.a.iii.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

and specific citations for these costs is included in Attachment 1 to the Quenzer Declaration (“Attachment 1”).⁸⁸

The jurisdictional educational program are education activities that were done in-house. In the Revised Proposed Decision, the Commission noted because the 2001 Permit required some education programs, the Co-Permittees could not claim all of the jurisdictional education program costs under the 2007 Permit.⁸⁹ To address this, the Municipal Claimants have proposed a new RRM, which was created by comparing the costs of the jurisdictional educational program under the 2001 Permit to that of the 2007 Permit and taking the difference between those costs.⁹⁰ As shown in Attachment 1, the median value for education costs as a percentage of total stormwater program cost was 1.44% during the 2001 Permit years and 1.83% during the 2007 Permit years, which corresponds with an increase of 0.39%.⁹¹ If averages were used, the increase would be 1.72%, but the median is proposed to be conservative.⁹² As such, the new proposed educational cost RRM unit cost is 0.39%.⁹³

D. Revisions to RRM for the Watershed Activities and Collaboration in the Watershed Urban Runoff Management Program (Part E.2.f & E.2.g)

The Municipal Claimants proposed an RRM for the watershed activities and collaboration in the Watershed Urban Runoff Management Program (“WURMP”) that included the watershed workgroup cost share contributions, the jurisdictional watershed activities, the regional watershed activities such as the WURMP, and watershed workgroup activities.⁹⁴ The Commission’s concern with the RRM is that the WURMP costs were not actually related to the costs associated with the 2007 Permit.⁹⁵ To address these concerns, the Municipal Claimants provide the following explanation and revisions to the RRM.

The Municipal Claimants have decided not to propose an RRM for the watershed workgroup cost share contributions.⁹⁶ Instead, the Municipal Claimants will review the invoices for services provided via contract to determine which charges are for the new 2007 Permit requirements.⁹⁷

In response to the Revised Proposed Decision, the Municipal Claimants have recalculated the unit costs for the jurisdictional watershed activities. This unit cost was revised by taking a median value of the projects that were reported by the Co-Permittees in the WURMP annual reports from FY 08/09 through FY 11/12 that included activity cost data.⁹⁸ While the Municipal

⁸⁸ *Id.*

⁸⁹ Revised Proposed Decision, IV.C.4.

⁹⁰ Quenzer Dec, ¶16.b.ii.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.*

⁹⁴ Rebuttal, III.D.

⁹⁵ Revised Draft Parameters and Guidelines, IV.E.2.d.

⁹⁶ Quenzer Dec. ¶17.a.

⁹⁷ *Id.*

⁹⁸ Quenzer Dec. ¶17.b.iii.

Claimants acknowledge that not every watershed activity included reported costs, the proposed unit cost is based on a substantial number of watershed activities and is believed to be reasonably representative of the typical cost to perform a watershed activity.⁹⁹ Information about the specific watershed activities used to create this unit cost and RRM are included in Attachment 1.¹⁰⁰ This unit cost reasonably includes items such as mileage or other transportation costs because many of these watershed activities included fieldwork, interactions with the public, or other similar activities that required Co-Permittees to leave the office.¹⁰¹ The recalculation of the unit cost using only the data in the WURMP annual reports resulted in a revision to the unit cost to \$5,000.¹⁰²

WURMP Costs are the actual annual costs for the Regional WURMP Working Group to develop and maintain the Regional Watershed Activities Database.¹⁰³ The Regional Watershed Activities Database was developed to track the watershed activities newly required by the 2007 Permit.¹⁰⁴ Because this database was solely developed in response to a 2007 Permit new requirement, it should qualify as a reimbursable activity.¹⁰⁵

The Municipal Claimants acknowledge that at least some of the topics and items discussed in the watershed workgroup meetings may not have been related to the 2007 Permit's new requirement to develop an updated WURMP and develop new watershed activities. However, developing the WURMP was the primary focus of watershed workgroup meetings from the 2007 Permit's effective date through the submittal of the updated WURMPs in March 2008.¹⁰⁶ After the submittal of the WURMP update, watershed workgroup meetings regularly included discussion of watershed activities that were required by the higher level of service in the 2007 Permit.¹⁰⁷ To address that not all discussions were about new watershed activities required under the 2007 Permit, the Municipal Claimants propose the following revisions to the RRM:

- For meetings that occurred between the 2007 Permit effective date and the WURMP update submittal in March 2008, the RRM unit cost per attending meetings is modified to \$131.44 to account for the potential discussion of other topics during those meetings.¹⁰⁸ This reduction of the unit cost by half is a conservative reduction given that the primary focus of these meetings was to provide the updated WURMPs.¹⁰⁹
- For meetings that occurred after the WURMP update submittal in March 2008, the RRM unit cost is reduced to \$26.29 to account for the potential discussion of other

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ Rebuttal Quenzer Dec. ¶14.c.2; Quenzer Dec. ¶17.c.ii.

¹⁰⁴ Rebuttal Quenzer Dec. ¶14.c.2; Quenzer Dec. ¶17.c.ii.

¹⁰⁵ Rebuttal Quenzer Dec. ¶14.c.2; Quenzer Dec. ¶17.c.ii.

¹⁰⁶ Quenzer Dec. ¶17.d.iii.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

topics during those meetings.¹¹⁰ This reduction of the unit cost to a tenth is a conservative reduction given that the watershed workgroup meetings regularly included discussion of watershed activities that were required by the higher level of service in the 2007 Permit.¹¹¹

E. RRM for the Regional Urban Runoff Management Program (Parts F.1., F.2. & F.3).

The RRM for the Regional Urban Runoff Management Program (“RURMP”) was a summation of the actual costs of implementation.¹¹² The Commission’s primary concern with this RRM appears to be a belief that this Proposed RRM includes information that is either not reimbursable or counted elsewhere.¹¹³

The Municipal Claimants cited to all of these pages to explain what was included in this Proposed RRM and to show that these activities were reimbursable. Additionally, the Municipal Claimants explicitly stated what was removed to avoid the double counting issue. Specifically:

RURMP costs are Regional Workgroup Expenditures specifically designated as allocated for RURMP annual reporting. These expenditures were reported by the following workgroups: Fiscal, Reporting, and Assessment (FRA); Industrial and Commercial Sources (ICS), Monitoring (MON), Municipal (Muni), Watershed Urban Runoff Management Program (WURMP), Education and Regional Sources (ERS), and Land Development (LD). The RURMP expenditures reported by these workgroups were removed from the workgroup expenditures presented for some of these workgroups in other categories (e.g., FRA expenses in item 17.b) to avoid double counting.¹¹⁴

For these reasons, the Commission’s concerns have been addressed and the RRM should be adopted as proposed. A more detailed table of the costs used to develop the RURMP Proposed RRM and specific citations for these costs is included in Attachment 1.¹¹⁵

F. RRM for the Program Effectiveness Assessment (Parts I.1 & I.2).

The Municipal Claimants proposed an RRM for the program effectiveness assessment, which includes the jurisdictional program effectiveness assessments and the regional fiscal, reporting, and assessment workgroup activities.¹¹⁶ This RRM is a combination of a reasonable

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² Rebuttal Quenzer Dec. ¶ 16.

¹¹³ Revised Draft Parameters and Guidelines, IV.E.2.e.

¹¹⁴ Rebuttal III.E., Rebuttal Quenzer Dec. ¶ 16.d.

¹¹⁵ Quenzer Dec. ¶ 18.b.

¹¹⁶ Rebuttal III.F., Rebuttal Quenzer Dec. ¶ 17.

approximation of the local costs and the actual costs where no reasonable approximation was applicable.¹¹⁷ The Commission explained that these RRM s were not adopted because the costs used to develop the jurisdictional program effectiveness assessments could have covered activities also required in the 2001 Permit and the regional fiscal, reporting, and assessment (“FRA”) workgroup costs covered items that were not reimbursable.¹¹⁸

The portion from the jurisdictional program effectiveness assessments was based on data reported by Co-Permittees in the fiscal analysis components of their JURMP annual reports.¹¹⁹ In the fiscal analysis, each Co-Permittee reported their total stormwater program costs from the applicable reporting year.¹²⁰ Certain Co-Permittees also reported how much of that total cost was attributable to program effectiveness assessment.¹²¹ The effectiveness assessment cost was divided by the total stormwater program cost to yield the percent of the total stormwater cost attributable to program effectiveness assessment.¹²² The Municipal Claimants have revised the jurisdictional program effectiveness assessments to be the median cost percentage.¹²³ A more detailed table of costs used to develop the RRM and associated citations is provided in Attachment 1.¹²⁴ Although the 2001 Permit required some jurisdictional program effectiveness assessment, the 2007 Permit was a significant increase in effectiveness assessment requirements which suggests that almost all of the reported program effectiveness assessment costs under the 2007 Permit were new costs.¹²⁵ The costs of the jurisdictional program effectiveness assessment from FY 2005/2006 are 25% of the jurisdictional program effectiveness assessment costs after the 2007 Permit was adopted.¹²⁶ However, to account for some overlap in program effectiveness requirements across the two permits, the Co-Permittees propose reducing the RRM standard percentage of stormwater program costs by 25%, which reduces it from 0.37% to 0.28%.¹²⁷

Developing a standardized fiscal analysis method and facilitating program effectiveness assessment are reimbursable activities.¹²⁸ The FRA workgroup was formed for this purpose.¹²⁹ FRA activities including developing standard assessment practices and methods for reporting them; this planning activity began after the 2007 Permit was adopted.¹³⁰ The only other activities the FRA workgroup performed were overseeing development of the Long Term Effectiveness Assessment (“LTEA”) and RURMP development and reporting; both of those activities are also reimbursable and are included in separate RRM s.¹³¹ The FRA Workgroup portion of the Proposed

¹¹⁷ *Id.*

¹¹⁸ Revised Draft Parameters and Guidelines, IV.E.2.f.

¹¹⁹ Quenzer Dec. ¶19.a.iii.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ Revised Draft Parameters and Guidelines, IV.E.2.f.

¹²⁹ Quenzer Dec. ¶19.b.ii.; Vol. 13, p. 10827.

¹³⁰ Quenzer Dec. ¶19.b.ii.; Vol. 13, p. 10827.

¹³¹ Quenzer Dec. ¶19.b.ii; Vol. 13, p. 10827.

RRM includes only the FRA relevant workgroup expenditures as the LTEA and RURMP development and reporting costs excluded from this Proposed RRM.¹³² Therefore, it is limited to reimbursable activities. A more detailed table of the costs used to develop the FRA Workgroup Proposed RRM and specific citations for these costs is included in Attachment 1.¹³³

G. RRM for the Long-Term Effectiveness Assessment (Part I.5).

As described in the Rebuttal, this portion of the Proposed RRM is based on the actual annual costs of the contractors needed to assess the long-term effectiveness of the projects as reported by the County and each Co-Permittees' proportional share of the cost per the applicable cost sharing agreement.¹³⁴ In the Revised proposed Decision, the Commission seemed concerned that LTEA covered too broad of a data range and did not specifically site to the pages where the amounts of those contracts could be found.¹³⁵ These concerns were addressed in the Rebuttal and attached declarations.

Although the RRM covered the date range of the entire permit for consistency and acknowledgment that this was a requirement over the Permit term, the only contractor costs included in the RRM were from 2010-2011.¹³⁶ Because those were the only contractor costs included, those were the only years for which the RRM formula would be used.¹³⁷

Furthermore, the Municipal Claimants provided individual page citations to the specific contractor costs in the declarations supporting the Rebuttal.¹³⁸ The broad range of pages referenced in the body of the Rebuttal is necessary to understand the context of the LTEA portion of the RRM. More exact page numbers is included in Attachment 1.¹³⁹ For these reasons, the Commission's concerns have been addressed and this RRM should be adopted.

H. RRM for the All-Permittee Collaboration (Part L.1.a.(3)-(6)).

The Municipal Claimants proposed an RRM for the all-permittee collaboration that included support for regional workgroup meetings, regional workgroup meetings, and workgroup expenditures.¹⁴⁰ The Commission has rejected this RRM on the grounds that there is concern that the request is duplicative of other portions of the Proposed RRM.¹⁴¹

The Proposed RRM did not include collaboration costs related to the WURMP, RURMP, or LETA because those costs were included in RRM's. Although the Municipal Claimants believe that the provided Proposed RRM does not include any duplicative costs, the Municipal Claimants

¹³² Quenzer Dec. ¶19.b.ii.

¹³³ *Id.*

¹³⁴ Rebuttal, III.G; Rebuttal Quenzer Dec. ¶18.

¹³⁵ Revised Draft Parameters and Guidelines, IV.E.2.g.

¹³⁶ Quenzer Dec. ¶20.b.; Rebuttal Quenzer Dec. ¶18.

¹³⁷ Quenzer Dec. ¶20.b.; Rebuttal Quenzer Dec. ¶18.

¹³⁸ Rebuttal Quenzer Dec. ¶18.

¹³⁹ Quenzer Dec. ¶ 20.b.

¹⁴⁰ Rebuttal, III.H.

¹⁴¹ Revised Draft Parameters and Guidelines, IV.E.2.h.

are willing to revise the RRM in order to make it clearer that there are no duplicative costs.¹⁴² Specifically, the Municipal Claimants suggest:

- Modifying the County Cost unit cost to only include costs for support for regional workgroup meetings to limit workgroup support costs to support provided for the Educational and Residential Sources (ERS) Workgroup;¹⁴³
- Modifying the RRM for regional workgroup meetings to limit meeting participation costs to participation in the ERS Workgroup;¹⁴⁴
- Removing the regional workgroup cost portion of the RRM.¹⁴⁵

The Municipal Claimants believe that this revised RRM will remove any concern of duplicative reimbursement as the ERS Workgroup is not covered elsewhere. The evidence supporting the revisions to the RRM is included in Attachment 1.¹⁴⁶ The Municipal Claimants wish to clarify that each Co-Permittee will need to submit the number of meetings and individuals who went to each meeting when costs are claimed.¹⁴⁷

¹⁴² Quenzer Dec. ¶21.

¹⁴³ Quenzer Dec. ¶21.a.ii.

¹⁴⁴ Quenzer Dec. ¶21.b.ii..

¹⁴⁵ Quenzer Dec. ¶21.b.iii.

¹⁴⁶ Quenzer Dec. ¶ 21.

¹⁴⁷ Quenzer Dec. ¶21.b.ii..

Item to be Reimbursed	Proposed Reasonable Reimbursement Method ¹⁴⁸
Reporting on Street Sweeping and Conveyance System Cleaning (Part J.3.a.(3)(c) (iv)-(viii), (x)-(xv))	$Reieimbursement = \sum_{t=FY07/08}^{FY12/13} [Conveyance Reporting Cost]_t + \sum_{t=FY07/08}^{FY12/13} [Sweeping Reporting Cost]_t$
Conveyance System Cleaning (Part D.3.a.(3)(b)(iii))	$Reimbursement = \sum_{t=FY07/08}^{FY14/15} [(Unit Cost)_S(\#S)]_t + \sum_{t=FY07/08}^{FY14/15} [(Unit Cost)_L(L)]_t$
Educational Component (Parts D.5.a.(1)-(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii.-vi.), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3))	$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(County Education Costs)(MOU)]_t + \sum_{t=FY07/08}^{FY14/15} [(Education Costs)(Total)]_t$
Watershed activities and collaboration in the Watershed Urban Runoff Management Program (Part E.2.f & E.2.g)	$Reimbursement = \sum_{t=FY08/09}^{FY12/13} [4 * Watersheds * Jurisdictional Activities]_t + \sum_{t=FY07/08}^{FY12/13} [(WURMP Costs)(MOU)]_t$ $+ \sum_{t=FY06/07}^{FY12/13} [(Rate)(\# Attendees)(\# Meetings)]_t$
Regional Urban Runoff Management Program (Parts F.1., F.2. & F.3)	$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(Cost Share)(MOU)]_t$
Program Effectiveness Assessment (Parts I.1 & I.2)	$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(Effectivness)(Total)]_t + \sum_{t=FY06/07}^{FY12/13} [(FRA Workgroup Costs)(MOU)]_t$
Long-term Effectiveness Assessment (Part I.5)	$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(Contractor Costs)(MOU)]_t$
All Permittee Collaboration (Part L.1.a.(3)-(6))	$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(County Cost)(MOU)]_t + \sum_{t=FY06/07}^{FY12/13} [(Rate)(\# Meeting Attendances)]_t$

¹⁴⁸ To the extent that the RRM periods include the FY 06/07 or FY 07/08, only work done after the adoption of the 2007 Permit may be claimed. All RRMs are articulated in the attached Quenzer Declaration.

Item to be Reimbursed	Proposed Reasonable Reimbursement Method With Unit Costs ¹⁴⁹¹⁵⁰
Reporting on Street Sweeping and Conveyance System Cleaning (Part J.3.a.(3)(c) (iv)-(viii), (x)-(xv))	$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [\$2,900.83^*]_t + \sum_{t=FY07/08}^{FY12/13} [\$6,143.67^*]_t$
Conveyance System Cleaning (Part D.3.a.(3)(b)(iii))	$Reimbursement = \sum_{t=FY07/08}^{FY14/15} [\$162.32^*(\#S)]_t + \sum_{t=FY07/08}^{FY14/15} [\$3.02^*(L)]_t$
Educational Component (Parts D.5.a.(1)-(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii.-vi.), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3))	$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(County\ Education\ Costs)(MOU)]_t + \sum_{t=FY07/08}^{FY14/15} [0.0039(Total)]_t$
Watershed activities and collaboration in the Watershed Urban Runoff Management Program (Part E.2.f & E.2.g)	$Reimbursement = \sum_{t=FY08/09}^{FY12/13} [4 * Watersheds * \$5,000]_t + \sum_{t=FY07/08}^{FY12/013} [(WURMP\ Costs)(MOU)]_t$ $+ \sum_{t=FY06/07}^{March\ 08} [(\$131.44^*)(\# Attendees)(\# Meetings)]_t + \sum_{t=March\ 08}^{FY12/13} [(\$26.29^*)(\# Attendees)(\# Meetings)]_t$
Regional Urban Runoff Management Program (Parts F.1., F.2. & F.3)	$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(Cost\ Share)(MOU)]_t$
Program Effectiveness Assessment (Parts I.1 & I.2)	$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [0.0028(Total)]_t + \sum_{t=FY06/07}^{FY12/13} [(FRA\ Workgroup\ Costs)(MOU)]_t$
Long-term Effectiveness Assessment (Part I.5)	$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(Contractor\ Costs)(MOU)]_t$
All Permittee Collaboration (Part L.1.a.(3)-(6))	$Reimbursement = \sum_{t=FY07}^{FY12/13} [(County\ Cost)(MOU)]_t + \sum_{t=FY06/07}^{FY12/13} [(\$262.88^*)(\# Meeting\ Attendances)]_t$

¹⁴⁹ Numbers with an asterisk are those unit costs that adjust with time due to CPI adjustments.

¹⁵⁰ To the extent that the RRM periods include the FY 06/07 or FY 07/08, only work done after the adoption of the 2007 Permit may be claimed. All RRMs are articulated in the attached Quenzer Declaration.

VI. CONCLUSION

For the foregoing reasons, the Municipal Claimants respectfully request adoption of the RRM's and revised Unit Costs proposed for all reimbursable state mandated activities.

Pursuant to Title 2, section 1183.8, and section 1183.3 of the California Code of Regulations, I certify and declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my personal knowledge, information, or belief, and that this declaration is executed on this 16th day of May 2025, at San Diego, California.

Sincerely,

A handwritten signature in blue ink, appearing to read 'SHAWN D. HAGERTY'.

Shawn D. Hagerty
of BEST BEST & KRIEGER LLP

SDH

**DECLARATION OF JOHN QUENZER
IN SUPPORT OF REASONABLE REIMBURSEMENT METHODOLOGY
07-TC-09-R – Response to Revised Parameters and Guidelines**

I, John Quenzer, declare as follows:

BACKGROUND

1. I am over the age of 18. I have personal knowledge of the facts set forth below and, if called as a witness, I could testify competently to all of the facts set forth herein.
2. Except as otherwise stated, the facts set forth herein are known to me personally or have been determined by my review of public records or official records maintained by either D-Max Engineering, Inc. (“D-Max”) or the County of San Diego (“County”) in the ordinary course of business. All records reviewed were maintained by authorized personnel, or persons acting under their control, in the ordinary course of business at or near the time of the act, condition, or event described therein. If called to testify as a witness, I could and would testify competently thereto.
3. I am a Principal Scientist at D-Max. I have a Masters of Science in Environmental Engineering and Science from Johns Hopkins University and a Bachelor of Science in Environmental Chemistry from the University of California, San Diego. I am also a Certified Professional in Storm Water Quality (“CPSWQ”) and a Qualified Stormwater Pollution Prevention Plan (“SWPPP”) Developer (“QSD”)/Qualified SWPPP Practitioner (“QSP”). A copy of my resume is included in the D-Max Supporting Documents filed in the Claimants’ Comments on the Draft Proposed Decision and Parameters and Guidelines¹ Volume 14, pages 1-7.
4. I have worked at D-Max Engineering for twenty (20) years. During this time, my work has focused on storm water management for municipal agencies in Southern California, mainly within San Diego County.
5. During my time at D-Max, I have worked on numerous projects for the County of San Diego, Cities of Carlsbad, Del Mar, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, Chula Vista, Coronado, El Cajon, Encinitas, Escondido, La Mesa, National City, Oceanside, San Diego, Vista, San Diego County Regional Airport Authority, and the San Diego Unified Port District (“Co-Permittees”) to implement the requirements of Order No. R9-2007-0001, issued by the San Diego Regional Water Quality Control Board (“2007 Permit”) and Order No. R9-2013-0001, as amended (“2013 Permit”). I have served as an extension of staff managing storm water programs for the Cities of National City, Lemon Grove, and Santee. I have prepared and updated Jurisdictional Urban Runoff Management Program (“JURMP”) and/or associated annual reports for more than half of the San Diego Co-Permittees. I regularly attended regional and watershed meetings for Co-Permittees collaboration, typically representing the City of National City. I have also worked with 16 of the 19 municipal Co-Permittees (those

¹ Citations to the Claimants’ Comments on the Draft Proposed Decision and Parameters and Guidelines Volumes filed on February 20, 2024 will be referred as “Volume”.

other than San Diego County Regional Airport Authority and San Diego Unified Port District) on other various stormwater program needs during this time. My experience includes completing projects in each of the following areas:

- a. The 2007 Permit's JURMP, including the collaboration involved in developing and implementing the JURMPs; the requirement to include street sweeping and conveyance system cleanings in the annual reports; and the requirement to educate target community members on erosion prevention, non-stormwater discharge prohibitions, BMP types, high-risk behaviors;
 - b. The 2007 Permit's Watershed Urban Runoff Management Program ("WURMP"), including the watershed activities included in the WURMPs and the collaboration involved in developing and implementing the WURMPs for each watershed;
 - c. Regional Urban Runoff Management Program ("RURMP"), including the collaboration involved in developing and implementing the RURMP, the RURMP's education program, and the RURMP's fiscal analysis method;
 - d. Meetings held and attended by Co-Permittees to promote consistency among the 2007 Permit's JURMP and WURMP, and to plan and coordinate activities required under the permit; and
 - e. The 2007 Permit's Program effectiveness assessment and long term effectiveness assessment requirements.
6. In 2023, the County of San Diego, Cities of Carlsbad, Del Mar, Imperial Beach, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, Chula Vista, Coronado, El Cajon, Encinitas, Escondido, La Mesa, National City, Oceanside, San Diego, and Vista (collectively, "Municipal Claimants") retained me and D-Max to assist in developing a reasonable reimbursement methodology.

DOCUMENTS OBTAINED AND REVIEWED

7. In my role as a consultant to all Municipal Claimants in connection with the development of a reasonable reimbursement methodology, I requested, received, and reviewed documents created and maintained by the County in the ordinary course of business which evidence their activities to implement each of the programs described above, and the costs associated with those activities, including but not limited to the following documents:
- a. County 2011 Co-Permittee Surveys ("2011 Surveys") (Vol. 1, pp. 1-376 and Declaration of Lara Barrett in Support of the Rebuttal Exhibits A and B).
 - b. Initial Co-Permittee Declarations (Vol. 1, pp. 377-743).
 - c. JURMP Annual Reports (Vols. 2-11 and Declaration of Lara Barrett Exhibits A-E²).

² To revise the RRM pursuant to the Revised Proposed Decision, I also reviewed the JURMP annual reports relating to FY 05/06 to compare the costs and requirements from the 2001 Permit to those under the 2007 Permit.

- d. Water Quality Improvement Project (“WQIP”) Annual Reports (Vol. 12).
- e. WURMP Annual Reports (Vol. 13, pp 1-10756).
- f. County Fiscal Analysis Documents (Vol. 13, pp. 10757-10784).
- g. Cost-Sharing Memorandums of Understanding (“MOUs”) (Vol. 13, pp. 10785-10907).
- h. County Watershed Workgroup Expenditure Records (Vol. 13, pp. 10908-10916).
- i. Regional Cost Sharing Documentation (Vol. 13, pp. 10917-13074)
- j. D-Max Files (Vol. 14, pp. 8-189).
- k. Co-Permittee Declarations (attached).

These documents included cost information from a representative sample of the Co-Permittees.

8. In my role as a consultant to all Municipal Claimants in connection with the development of a reasonable reimbursement methodology, I also reviewed the following documents:
 - a. Finance’s Comments on the Draft Proposed Decision and Parameters and Guidelines filed October 14, 2024.
 - b. Controller’s Comments on the Draft Proposed Decision and Parameters and Guidelines filed October 14, 2024.
 - c. Water Board’s Comments on the Draft Proposed Decision and Parameters and Guidelines (Volumes 1-3) filed October 14, 2024.
 - d. Commission on State Mandate’s Revised Draft Proposed Decision and Parameters and Guidelines filed March 20, 2025 (“Revised Proposed Decision”).

The comments from the Department of Finance, State Controller’s Office, and State Water Quality Control Board and the San Diego Regional Water Quality Control Board are hereinafter referred to as “State Comments.”

9. I considered these documents, the State Comments, the Revised Proposed Decision and the variation in costs among Co-Permittees to implement the state mandates to create and then revise the reasonable reimbursement methodologies (“RRM”) for each reimbursable activity described in the Revised Proposed Decision for Test Claim 07-TC-09-R (“Test Claim Mandate”) based on general allocation formulas, uniform cost allowances, and other approximations of Co-Permittee costs to implement the Test Claim Mandates.
10. In the following sections, I describe the reasonable reimbursement methodology or formula for reimbursing the Co-Permittees for each Test Claim Mandate for the 2007 Permit.

11. Additionally, in response to the Revised Proposed Decision, I have made a few revisions to the RRM descriptions and have added additional detail to the RRM descriptions. Many of these revisions were covered in my declaration that was submitted along with the Municipal Claimants Rebuttal to the State Responses (“Rebuttal”) but we have restated them here for convenience.
12. The Commission noted that more detailed citations of data used to support the RRM unit costs were needed. Tables of the costs reported by Co-Permittees and specific references to where those numbers were found in previously submitted volumes are provided in Attachment 1.

REIMBURSEMENT FORMULAE

13. For the purpose of the below reimbursement formulas, the below general information should apply.
 - a. Reimbursement formulae provide an outline of how the Co-Permittees will submit claims for reasonable reimbursement.
 - b. All costs and monetary values are in United States dollars.
 - c. The term “fiscal year” (FY) means the period from July 1 of one year to June 30 of the next year. For example, FY 2007/2008 is the period from July 1, 2007 to June 30, 2008. Common conventions for referring to fiscal years used by the Co-Permittees include FY [Year 1]/[Year 2] (e.g., FY 2007/2008), [Year 1]/[Year 2] (e.g., 2007/2008), [last two digits of Year 1]/[last two digits of Year 2] (e.g., 07/08), FY [Year 2] (FY 2008), or FY[last two digits of Year 2] (e.g., FY08).
 - d. Reimbursement formulae are articulated with summation notation to indicate the time frame in which the unfunded mandate was imposed as described below:

$$\sum_{t=Year A}^{Year B} [x]_{t,c}$$

In this formula, x shall refer to the specific unfunded mandate element in question, t , for time, refers to the fiscal year where the mandate applied, and c , refers to values specific to the individual Co-Permittee. The reimbursement formulae shall be used as a tool for the Co-Permittees to make individual claims, which would occur after approval of reasonable reimbursement methodologies.

- e. The time periods considered for the reimbursement formulae included below represent three distinct periods during which activities performed by the Co-Permittees (and outlined by the Permit) can be considered unfunded mandates:
 - i. Between the effective date of 2007 Permit (January 24, 2007) to March 23, 2008, which is the day before updated JURMPs prepared per the 2007 Permit were required to be implemented.

- ii. From March 24, 2008, to June 26, 2013, which is the day before the effective date of the 2013 Permit.
- iii. June 27, 2013, which is the effective day of the 2013 Permit, to June 26, 2015, which is the day before the 2013 Permit required Co-Permittees to submit and begin implementing Jurisdictional Runoff Management Programs (“JRMP”) updated to meet 2013 Permit requirements. Provision
- f. Where the unit costs utilized in reimbursement formulae are increased annually by the San Diego-Carlsbad Consumer Price Index for all urban consumers, not seasonally adjusted (“CPI”), the annual increase shall follow the adjustment in the table below. The CPI adjustment values were determined by referencing the Historic Consumer Price Index values, CPI for all Urban Consumers in the San Diego-Carlsbad, CA area, reported by the US Bureau of Labor Statistics³ and calculating the ratio of the CPI for a given year to the CPI reported for a given base year.

Since the BLS reports CPI on a calendar year basis rather than a fiscal year basis, the year used to determine the adjustment ratio for a given fiscal year was the earlier calendar year included in the fiscal year.

Fiscal Year	CPI Adjustment (Ratio), 2007/2008 Base	CPI Adjustment (Ratio), 2008/2009 Base	CPI Adjustment (Ratio), 2009/2010 Base	Reported San Diego CPI-U	Year (for CPI-U value)
FY 2006/2007	0.9776	0.9413	0.9415	228.100	2006
FY 2007/2008	1.0000	0.9629	0.9631	233.321	2007
FY 2008/2009	1.0385	1.0000	1.0002	242.313	2008
FY 2009/2010	1.0384	0.9998	1.0000	242.270	2009
FY 2010/2011	1.0520	1.0130	1.0132	245.464	2010
FY 2011/2012	1.0840	1.0437	1.0439	252.910	2011
FY 2012/2013	1.1013	1.0605	1.0606	256.961	2012
FY 2013/2014	1.1157	1.0743	1.0745	260.317	2013
FY 2014/2015	1.1364	1.0942	1.0944	265.145	2014

- g. Some of the proposed RRM are based on data from 2011 Surveys prepared by Co-Permittees. The Commission expressed concern about whether these surveys could be relied on to develop RRM. In response, several Co-Permittees provided declarations in 2025 to attest to the costs of activities originally provided in the 2011 Surveys (“Co-Permittee Declarations”). Because of the long time that has elapsed since the 2011 Surveys were prepared, the staff who had prepared the 2011 Surveys or overseen staff preparing them in many cases no longer work for the Co-Permittees and were not available to prepare declarations. For the subset of Co-Permittees who were able to submit a Co-Permittee Declaration, the

³ https://data.bls.gov/pdq/SurveyOutputServlet?data_tool=dropmap&series_id=CUURS49ESA0.CUUSS49ESA0

numbers reported in Co-Permittee Declarations were generally the same as or very similar to the numbers reported in the 2011 Surveys. This suggests the 2011 Surveys are a reliable data source for developing RRM. More information about data submitted in the Co-Permittee Declarations is provided in the applicable reimbursable activity discussions below.

14. Reporting on Street Sweeping and Conveyance System Cleaning (Part J.3.a.(3)(c) (iv)-(viii), (x)-(xv)).

The total reimbursement for this category is determined by combining the cost to report on the conveyance system cleaning and street sweeping as described below. Formulae to calculate these costs and details about the period considered for summation of costs and rationale for selection of inputs to these formulae are provided below.

a. Period considered for summation of costs for this category

The period of summation for reporting on street sweeping and conveyance system cleaning is from March 24, 2008, which is the date that Co-Permittees were required to begin implementing their JURMP developed per the 2007 Permit requirements, to, June 26, 2013, which is the day before the effective date of the 2013 Permit. Street sweeping and conveyance system cleaning reporting are part of the JURMP. While per Provision E of the 2013 Permit each Co-Permittee was required to continue implementing its 2007 Permit JURMP until the new JRMP required by the 2013 Permit was implemented (by June 27, 2015), based on my experience the San Diego Regional Water Quality Control Board (“San Diego Water Board”) allowed Co-Permittees to stop reporting on street sweeping and conveyance system cleaning after the 2013 Permit went into effect. Specifically, for jurisdictional annual reports due after the effective date of the 2013 Permit, the San Diego Water Board allowed Co-Permittees to submit the simplified two-page JRMP annual report included in the 2013 Permit instead of the much longer JURMP annual reports required under the 2007 Permit. The simplified 2013 JRMP annual report does not require conveyance system cleaning or street sweeping to be reported. Some Co-Permittees continued to prepare longer, 2007 Permit style JURMP annual reports that did include street sweeping and conveyance system reporting after the effective date of the 2013 Permit, but to be conservative that reporting cost is not included in the proposed reimbursement methodology.

Data tracking is the reason why the proposed RRM states that costs in 2007-2008 should be reimbursable. While the first JURMP annual report that contained the new street sweeping and catch basin cleaning requirements was not due until September 2008, which is in fiscal year 2008-2009, the September 2008 report was a report on data from 2007-2008. Therefore, data collection and recording were needed in 2007-2008 to successfully report on 2007-2008 data in the report due September 2008.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the street sweeping and reporting costs for the 2007/2008 and 2012/2013 fiscal years. The 2007/2008 reporting cost claimed should be 27.05% of the standard unit cost for reporting. This reflects that 99 days of the 366 days in fiscal year 2007/2008 were on or after March 24, 2008. The 2012/2013 reporting cost claimed should be 98.90% of the standard unit cost for reporting. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

b. Activities Included in RRM Unit Costs

The Commission noted that the costs of the following activities have been included in the surveys used to support the proposed RRM for reporting, but those activities have not been supported by substantial evidence explaining why they are necessary to comply with the mandate: “developing policies and procedures, or developing, updating and implementing data tracking and analysis methods and procedures for reports to the Regional Board.”

The activities described above are necessary to comply with the mandate and therefore should be considered reimbursable. To complete reporting as required by the 2007 Permit, Co-Permittees must identify the data that will be needed for reporting, develop procedures to collect and record that data, and implement those procedures such that the necessary data is recorded and is available to be compiled for reporting. When an annual report is required, Co-Permittees need to develop and implement procedures across their organizations to collect the necessary data. A reporting mandate imposes both data tracking system development and implementation, which is an ongoing effort, and the actual preparation and submittal of the required report, which occurs over a limited portion of each fiscal year.

For street sweeping, the 2007 Permit required the Co-Permittees to track information such as the frequency of sweeping completed on three categories of roads (high, moderate, and low debris generation), the frequency of sweeping completed for municipal parking lots, curb miles swept, and debris removed. Tracking all of this data was not required under the 2001 Permit, so Co-Permittees would need to develop and implement procedures to track this information and ensure the staff responsible for tracking the information understand and properly implement the procedures.

For conveyance system cleaning reporting, the 2001 Permit required only “record keeping of cleaning and the overall quantity of waste removed.” The 2007 Permit required reporting much more detailed information, such as numbers or linear distances inspected, found with waste exceeding the cleaning criteria, and cleaned and the total debris removed for each of the following three categories: (1) catch basins and inlets, (2) linear municipal separate storm sewer systems (“MS4”) facilities other than open channels, and (3) open channels. Because this is not the same information required to be tracked and reported under the 2001 Permit,

work to develop and implement new data tracking procedures designed to collect the information the 2007 Permit required to be reported, including oversight and training of staff involved in implementing these procedures, were necessary.

For both reporting on both street sweeping and conveyance system maintenance, training (“employee and vendor training”) was a separate line item from reporting. Because the unit costs for each of these activities were developed based only on the costs for “reporting” in the 2011 Surveys, the costs for “training” also recorded on those surveys are not included in the unit costs proposed in the RRM.

c. Reporting on Conveyance System Cleaning

Reimbursement for this category was determined to be best represented with a formula based on a standard unit cost. The reasonable reimbursement formula is:

$$Reimbursement = \sum_{t=FY\ 07/08}^{FY\ 12/13} [Conveyance\ Reporting\ Cost]_t$$

where, *Conveyance Reporting Costs* refers to the annual reporting cost per Co-Permittee to cover the conveyance system cleaning reporting requirements adjusted annually by the CPI. The period of summation for this formula is described in item 14.a above.

The *Conveyance Reporting Cost* standard unit cost represents the median of the permittee’s average annual conveyance system cleaning reported costs between FY 2007/2008 to FY 2009/2010 as reported by the Co-Permittees in submitted 2011 Surveys focused on conveyance system cleaning. The unit cost was identified by compiling the average annual costs for reporting on conveyance system cleaning for the Municipal Claimant that submitted this data⁴ for FY 2007/2008 through FY2009/10, and then calculating the median value of all the individual Municipal Claimant conveyance system reporting costs. The median was selected as a representative value for a standard unit cost for this unfunded mandate as it is a more conservative value than that obtained by utilizing the average of costs reported by the subset of Municipal Claimant.

In response to the Commission’s comments on the use of the 2011 Surveys as a data source, the cities of Chula Vista, Escondido, Solana Beach, and Vista Co-Permittee Declarations included conveyance system cleaning reporting costs during the 2007 Permit. The Escondido and Solana Beach costs were the same as reported in the 2011 Surveys, and the Chula Vista costs were somewhat lower than reported in the 2011 Survey. As shown in Attachment 1 Table 1, the revised *Conveyance Reporting Cost* is \$5,801.67 when based on data from 2007-2008

⁴ Data from the following agencies was included: the County of San Diego and the cities of Carlsbad, Chula Vista, El Cajon, Escondido, Imperial Beach, La Mesa, Lemon Grove, Poway, San Marcos, Santee, and Solana Beach.

through 2009-2010. If 2007-2008 data is excluded, then the *Conveyance Reporting Cost* is \$5,887.00.

As described above, activities such as data tracking are necessary to complete the mandated reporting. Therefore, the Co-Permittees' reported costs for conveyance system cleaning reporting are limited to actions necessary to carry out the mandate. Similarly, data tracking procedure updates and implementation were required in 2007-2008 to be able to report on 2007-2008 data in the September 2008 JURMP Annual Report, which means this work in 2007-2008 was also necessary to carry out the mandate.

However, the Co-Permittees are willing to accept the Commission's contention that there is some overlap with the conveyance system cleaning data tracking required under the 2001 Permit and what was required under the 2007 Permit. As described above, the 2007 Permit required reporting, and in turn tracking, more data and in more detailed categories than was required under the 2001 Permit.

For these reasons, the Co-Permittees propose that the RRM unit cost for conveyance system maintenance reporting, or *Conveyance Reporting Costs*, should be reduced to \$2,900.83, which is 50% of the previously proposed unit cost. The percentage is based on my best professional judgment informed by experience preparing annual reports under both the 2001 and 2007 Permits and working with agencies to prepare updated stormwater programs and procedures (via JURMP documents) in response to the 2007 Permit.

However, if the Commission disagrees with the above, the following changes could be made to the proposed RRM:

- If 2007-2008 is excluded:
 - Revise the RRM unit cost to exclude data from 2007-2008. This would result in a revised *Conveyance Reporting Costs* of \$2,943.50, which is 50% of the median value calculated without the 2007-2008 costs (\$5,887.00). The numbers used in this calculation are included in the table of street sweeping reporting costs in Attachment 1, Table 1.
 - Revise the RRM formula to exclude 2007-2008 from the period for which reimbursements can be claimed.
- If the 2011 Surveys are excluded, and the unit cost is based only on Co-Permittee Declarations:
 - Revise the *Conveyance Reporting Costs* to \$8,604.67, which is 50% of the median of the data set (\$17,209.33). See Attachment 1, Table 2 for median calculations and supporting data.
 - If 2007-2008 data is also excluded, revise the *Conveyance Reporting Costs* to \$8,731.25, which is 50% of the median with 2007-2008 data

excluded (\$17,462.50) and revise the RRM formula to exclude 2007-2008 from the period for which reimbursements can be claimed. See Attachment 1, Table 2 for median calculations and supporting data.

d. Reporting on Street Sweeping

Reimbursement for this category was determined to be best represented with a formula based on a standard unit cost. The formula and components of the formula were determined by reviewing data reported by Municipal Claimants in the 2011 Surveys focused on street sweeping. The numbers used in this calculation are included in Attachment 1, Table 3.

The reasonable reimbursement formula is as follows:

$$Reimbursement = \sum_{t=FY\ 07/08}^{FY\ 12/13} [Sweeping\ Reporting\ Cost]_t$$

were, “*Sweeping Reporting Cost*” refers to the annual reporting cost per permittee to cover the street sweeping reporting requirements adjusted annually by the CPI. The period of summation for this formula is described in item 14.a above.

The *Sweeping Reporting Cost* refers to the annual cost per Co-Permittee to cover street sweeping reporting adjusted annually by the CPI. The standard unit cost for *Sweeping Reporting Cost* represents the median of the Municipal Claimants’ average annual reporting costs to cover street sweeping reporting between FY 2007/2008 to FY 2009/2010 as reported by the subset of Municipal Claimants that prepared and submitted 2011 Surveys focused on street sweeping⁵. The unit cost was identified by compiling the average annual costs for reporting on street sweeping reported by each Municipal Claimant for FY 2007/2008 to FY 2009/2010 and calculating the median value across the subset of Municipal Claimants that submitted street sweeping reporting cost data. The median was selected as a representative value for a standard unit cost for this unfunded mandate as it is a more conservative value than that obtained by utilizing the average of costs reported by the subset of Municipal Claimants.

In response to the Commission’s comments on use of the 2011 Surveys as a data source, the cities of Chula Vista, Coronado, Escondido, and National City submitted Co-Permittee Declarations that included street sweeping reporting costs during the 2007 Permit. The reported costs in the Co-Permittee Declarations were the same as reported in the 2011 Surveys, so no updates to the *Sweeping Reporting Cost* was made. **The *Sweeping Reporting Cost* remains \$6,143.67.**

As described above, activities such as data tracking are necessary to complete the mandated reporting. Therefore, the Co-Permittees’ reported costs for street

⁵ This includes data from the following agencies: the County of San Diego and the cities of Chula Vista, Coronado, El Cajon, Escondido, Lemon Grove, National City, Oceanside, and San Diego.

sweeping reporting are limited to actions necessary to carry out the mandate. Similarly, data tracking procedure updates and implementation were required in 2007-2008 to be able to report on 2007-2008 data in the September 2008 JURMP Annual Report, which means this work in 2007-2008 was also necessary to carry out the mandate. For these reasons, the Co-Permittees still proposed the street sweeping RRM as previously proposed in the Co-Permittees' rebuttal comments.

However, if the Commission disagrees with the above, the following changes could be made to the proposed RRM:

- If FY 07/08 data is excluded:
 - Revise the *Sweeping Reporting Cost* to exclude data from 2007-2008. This would result in a revised *Sweeping Reporting Cost* of \$6,234.00. The numbers used in this calculation are included in the table of street sweeping reporting costs in Attachment 1, Table 3.
 - Revise the RRM formula to exclude 2007-2008 from the period for which reimbursements can be claimed.
- If the 2011 Surveys are excluded, and the unit cost is based only on 2025 declarations:
 - Revise the *Sweeping Reporting Cost* to \$3,596.33, which is the median of the data set. See Attachment 1, Table 4 for median calculations and supporting data.
 - If 2007-2008 data is also excluded, revise the *Sweeping Reporting Cost* to \$3,649.25, which is the median with 2007-2008 data excluded and revise the RRM formula to exclude 2007-2008 from the period for which reimbursements can be claimed. See Attachment 1, Table 4 for median calculations and supporting data.

15. Conveyance System Cleaning (Part D.3.a.(3)(b)(iii)).

The total reimbursement for this category is determined by combining the costs to clean different elements of the conveyance system as described below. Formulae to calculate these costs and details about the period considered for summation of costs and rationale for selection of inputs to these formulae are provided below.

a. Period considered for summation of costs for this category

The period of summation for reporting on street sweeping and conveyance system cleaning is from March 24, 2008, which is the date that Co-Permittees were required to begin implementing JURMP developed per the 2007 Permit requirements, to, June 26, 2015, which is the day before Co-Permittees were required to submit and begin implementing JRMPs that reflected requirements of the 2013 Permit. Conveyance system cleaning is part of the JURMP. Provision E

of the 2013 Permit requires each permittee to continue implementing its 2007 Permit JURMP until the new JRMP required by the 2013 Permit was implemented. New JRMPs were required to be submitted by June 27, 2015, with implementation of the new JRMPs beginning that same day.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the conveyance system cleaning for the 2007/2008 and 2012/2013 fiscal years. The 2007/2008 reporting cost claimed should be 27.05% of the standard unit cost. This reflects that 99 days of the 366 days in fiscal year 2007/2008 were on or after March 24, 2008. The 2014/2015 cost claimed should be 98.90% of the standard unit cost. This reflects that 361 of the 365 days in fiscal year 2014/2015 were on or before June 26, 2015.

b. Activities included in the catch basin cleaning RRM

i. Inspection Costs Versus Cleaning Costs

The Commission noted that the unit cost proposed for the catch basin cleaning RRM was based on data from surveys of Co-Permittees, and that the 2011 Surveys also asked for costs for catch basin inspections. To clarify, while the surveys asked for cleaning costs and inspection costs, only the cleaning costs were used in creating the RRM. See the catch basin cleaning costs table in Attachment 1, Tables 5, 6, and 8 for details of the numbers used and specific citations for each. The fact that the surveys asked for cleaning and inspection costs separately makes the reported cleaning costs more reliable, since including a separate inspection category reduces the likelihood of a respondent reading “cleaning” to mean both inspection and cleaning and then reporting both inspection and cleaning costs in the “cleaning” category.

Also note that the 2005 State Survey cited in the Rebuttal was cited only as another data point to check the unit cost calculated based on Co-Permittee data (the 2011 Surveys). The procedure to clean a storm drain is generally consistent across the State, so even data from other agencies that are not part of the Co-Permittee group may be useful as a point of comparison. However, if the 2005 State Survey was excluded, it would not affect the Co-Permittees’ calculated unit cost.

ii. Inclusion of Non-Qualifying Activities

The Commission notes that it is unclear if costs such as parking signage and enforcement or vehicle costs were included in the data set used to develop the unit cost for catch basin cleaning. In the same discussion, the Commission notes that the 2011 Surveys ask respondents not to include those costs, but Co-Permittees elsewhere have argued those costs should be reimbursable. To clarify, the 2011 Surveys are the basis of the catch basin cleaning unit costs. Therefore, per the instructions in the surveys, those costs were not included in the data set used to develop the unit costs.

Also note that while the 2011 Surveys included a line item for reporting, any cost for reporting included on the catch basin cleaning portion of the 2011 Surveys was excluded from the catch basin cleaning cost used to calculate the unit costs for the RRM. This avoids double counting between the catch basin cleaning and conveyances system reporting categories.

The Commission also notes that training may not be a reimbursable activity. The training included in this cost is training specifically related to catch basin cleaning and therefore reasonably necessary to carry out required catch basin cleaning. However, the 2011 Surveys include separate line items that identify training costs, and the proposed unit cost for catch basin cleaning have been updated to remove training costs.

iii. Representativeness of Data Set Used to Develop Unit Cost

The Commission also noted that only certain catch basin cleanings can be claimed as reimbursable; a list of these is provided on page 148 of the Revised Proposed Decision. The Commission further notes that Co-Permittees were not required to implement the 2007 Permit's requirements for the entire 2007-2008 fiscal year, so including data from all of 2007-2008 to develop the unit cost is inappropriate.

The Co-Permittees do not believe either of the above objections should result in a change to the proposed unit cost. The procedure followed to clean a storm drain is approximately the same, regardless of the trigger for cleaning. The RRM unit cost was developed based on all catch basin cleanings having the same average cost, regardless of whether they were done under the 2001 Permit or the 2007 Permit. There were no changes to requirements under the 2007 Permit that would make the unit cost of cleaning one catch basin less than it was under the 2001 Permit, so it is reasonable to use data from the portion of 2007-2008 that was under the 2001 Permit to develop the unit cost. Similarly, since all catch basin cleanings are expected to have the same average unit cost, it is not necessary to split out the data set into cleanings that would have been required under the 2001 Permit and extra cleanings required under the 2007 Permit to calculate a unit cost per catch basin cleaning.

The instructions for the 2011 Surveys also reflect that the Co-Permittees believed all catch basin cleanings have comparable unit costs. On the “Instructions & Notes” tab, number 6 under “Tab A. Instructions and Notes” says the following:

6. Inclusion of "First" Inspections and Cleanings.

Although actual claims may not include the "first" annual inspection and cleaning of each catch basin and inlet (these were required in the 2001 permit), your survey results should count these activities. The purpose of the survey is to quantify the typical cost of these activities on a unit basis. It is therefore simpler to include all inspections and cleanings in the survey, and ensures a larger sample size.

c. Conveyance system cleaning cost formula

The formula and components of the formula were determined by reviewing the 2011 Surveys focused on conveyance cleaning, the Co-Permittee Declarations, and the JURMP Annual Reports submitted by Co-Permittees. Using this information, I have determined that reimbursement for this category is best represented with standard unit costs developed for two types of conveyance system cleaning: cleaning of storm drain inlets or catch basins and cleaning of linear MS4, which includes pipe and open channels. The period of summation for this formula is described in item 15.a above.

$$Reimbursement = \sum_{t=FY07/08}^{FY14/15} [(Unit\ Cost)_S(\#S)]_t + \sum_{t=FY07/08}^{FY14/15} [(Unit\ Cost)_L(L)]_t$$

where “ $(Unit\ Cost)_S$ ” is the cost to clean one inlet or catch basin adjusted annually by the CPI; “ $(Unit\ Cost)_L$ ” is the cost to clean one linear foot of storm MS4 adjusted annually by the CPI; “ $\#S$ ” is the number of storm drain inlets or catch basins cleaned in a year by a Co-Permittee; and “ L ” is the distance of linear MS4 cleaned in linear feet by a Co-Permittee.

The $(Unit\ Cost)_S$ and $(Unit\ Cost)_L$ are collectively referred to as the “ $Unit\ Costs$ ” and were developed based on reported costs in the 2011 Surveys focused on conveyance cleaning and data included JRMP Annual Reports previously submitted to the Water Board by Co-Permittees. The value of the $(Unit\ Cost)_S$ represents the median cost to clean one storm drain inlet or catch basin during FY 2007/2008. The value of the $(Unit\ Cost)_L$ represents the median cost to clean one linear foot of linear MS4 during FY 2007/2008. The processes and assumptions to determine each of the $Unit\ Costs$ are described below.

d. Standard unit cost for storm drain inlet or catch basin cleaning, $(Unit\ Cost)_S$

The (*Unit Cost*)_s represents the median cost to clean one inlet or storm drain basin during FY 2007/2008 as calculated from data compiled from the 2011 Surveys focused on MS4 cleaning. The data compiled were reported values for storm drain inlet or catch basin cleaning unit costs reported by 16 Co-Permittees⁶ within the surveys. The median was selected as the summary statistic to be used as the reasonable standard unit cost for the RRM formula as it was a more conservative estimate than the average.

In response to the Commission's comments on use of the 2011 Surveys as a data source, the cities of Chula Vista,⁷ El Cajon,⁸ Escondido,⁹ Solana Beach,¹⁰ and Vista¹¹ submitted declarations in 2025 that included conveyance system cleaning costs during the 2007 Permit term. The Escondido and Solana Beach costs were the same as reported in the 2011 Surveys, and the Chula Vista and Vista costs were somewhat higher than reported in the 2011 Survey. The updated City of Chula Vista and City of Vista costs have been incorporated into a revised conveyance system reporting calculation.

The Co-Permittees propose the following changes to the proposed RRM:

- **Update the (*Unit Cost*)_s to \$162.32**, which represents data from 2007-2008 through 2009-2010, with costs of training and reporting excluded and updated cost data from the cities of Chula Vista and Vista incorporated. See Attachment 1, Table 7 for median calculations and supporting data.
- Clarify that the number of cleanings that a Co-Permittee may claim reimbursement for is limited to the number of cleanings that meet the criteria on page 148 of the Revised Proposed Decision. When each Co-Permittee makes a claim, the Co-Permittee will need to provide supporting documentation to demonstrate that only catch basin cleanings that meet these criteria are being claimed for reimbursement.

However, if the Commission disagrees that data from 2007-2008 should be considered in developing the proposed catch basin cleaning unit cost, the Co-Permittees proposed the following change to the catch basin cleaning unit cost used in the RRM:

- Revise the applicable time frame and change the (*Unit Cost*)_s to \$154.68. This number is based on data from 2008-2009 and 2009-2010; it does not include

⁶ This includes data from the following agencies: the County of San Diego and the cities of Carlsbad, Chula Vista, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista.

⁷ Soriano Declaration

⁸ Davies Declaration

⁹ Rivera Declaration

¹⁰ King Declaration

¹¹ Conley Declaration

data from 2007-2008. The table of supporting information for this unit in Attachment 1, Table 7 also provides this unit cost.

If the 2011 Surveys are excluded, and the unit cost is based only on Co-Permittee Declarations

- Revise the *(Unit Cost)_s* to \$89.64. See Attachment 1, Table 9 for median calculations and supporting data.
- If 2007-2008 data is also excluded, revise the *(Unit Cost)_s* to \$88.94 and revise the applicable time frame. See Attachment 1, Table 9 for median calculations and supporting data.

e. Standard unit costs for cleaning linear MS4, *(Unit Cost)_L*,

The standard unit costs for cleaning linear MS4 features, *(Unit Cost)_L*, was derived from reviewing the stormwater conveyance system cleaning data reported in the Co-Permittee Declarations, in the 2011 Surveys focused on conveyance cleaning, and in JURMP Annual reports for FY 2007/2008.¹²

The Commission correctly noted that the 2011 Surveys instructed respondents not to include costs for linear MS4 cleaning because they would instead be claimed as actual costs.¹³ Given that it has been almost 15 years since those surveys, and actual cost data would now be difficult to identify, Co-Permittees have proposed an RRM based on a unit cost instead. The 2011 Surveys included data for inspections and cleaning of catch basins and inlets only.

Because the 2011 Surveys did not ask for MS4 pipe or open channel cleaning costs, the unit cost was developed based on analyzing data from Initial Co-Permittee Declarations, 2011 Surveys, 2007-2008 JRMP Annual Reports, and the Co-Permittee Declarations. All data was for the 2007-2008 fiscal year. Tables of data and calculations are provided in Attachment 1, Table 10.

To respond to comments from the Commission and to incorporate updated catch basin cleaning values provided in Co-Permittee Declarations, the RRM unit cost calculation was revised as follows:

- The current proposed calculation approach is to subtract the total catch basin cleaning and inspection costs from the overall conveyance system cleaning costs, with the remainder then being the linear MS4 cleaning costs. Conveyance system cleaning programs generally consist of these three activities, so it is reasonable to estimate linear cleaning costs by subtracting the costs of catch basin inspections and cleaning.

¹² Data from the following agencies was included in the calculation: the cities of Carlsbad, Chula Vista, Escondido, Imperial Beach, and Vista. The JURMP Annual reports can be found in Volumes 2-11.

¹³ Revised Proposed Decision, pg 151

- The calculation approach was modified to use each Co-Permittee's own cleaning and inspection program costs rather than relying on an overall average unit cost.
- The total linear cleaning costs were then divided by the linear distance of pipe or channel cleaned to get a unit cost per linear foot cleaned.
- The cities of Escondido and Vista had previously been included in the calculation but were removed after further review due to lack of applicable data needed to calculate linear MS4 cleaning.

The Co-Permittees propose the following change to the proposed RRM:

- Clarify that the amount (linear feet) of MS4 that a Co-Permittee may claim reimbursement for is limited to the cleanings that meet the criteria on page 148 of the Revised Proposed Decision. When each Co-Permittee makes a claim, the Co-Permittee will need to provide supporting documentation to demonstrate that only cleanings that meet these criteria are being claimed for reimbursement.
- Use one combined unit cost that applies to linear cleaning of channels and pipes rather than proposing separate unit costs. This change is proposed because it is more consistent with the calculation procedure and underlying data set used to calculate the unit cost. **The proposed (*Unit Cost*)_L is the median value of the data set, which is \$3.02 per linear foot.** Supporting calculations and citations are provided in Attachment 1, Table 10.

16. Educational Component (Parts D.5.a.(1), D.5.a.(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii.-vi.), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3)).

The total reimbursable for education is determined by combining the regional outreach shared costs and jurisdictional educational programs as described in detail below.

a. Regional Outreach Shared Costs – Residential Education Program Development and Implementation

i. Period considered for summation of costs for this category

The period of summation for Residential Education Program Development and Implementation is from January 24, 2007, which is the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. Development of the Regional Outreach Residential Education Program was undertaken prior to the implementation date of the 2007 Permit so Co-Permittees could meet the requirements of implementing said program as soon as the date of delayed Permit implementation (March 24, 2008). Regional Education Program

Implementation requirements outlined in the 2007 Permit ended once the new 2013 Permit became effective.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the Residential Education Program Development and Implementation costs for the 2006/2007 and 2012/2013 years. The 2006/2007 Residential Education Program Development and Implementation cost claimed should be reduced to 43.29% of the cost. This reflects that 158 of the 365 days in fiscal year 2006/2007 were on or after January 24, 2007. The 2012/2013 costs claimed should be 98.90% of the costs. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

ii. Residential Education Program Development cost formula

The reasonable reimbursement formula for the costs of Residential Education Program Development and Implementation is:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(County\ Education\ Costs)(MOU)]_t$$

where “*County Education Costs*” are the annual shared costs for developing and implementing the Residential Education Program, and “*MOU*” is the Co-Permittees’ proportional share of the cost.

iii. Calculation of reported actual costs for Residential Education Program Development and Implementation

The yearly *County Education Costs* that were the responsibility of each Co-Permittee per the MOU distribution were reported in the Co-Permittee Declarations for FY2007/2008 to FY 2011/2012; only 18 Co-Permittees are represented in this data due to the declaration appendix documentation being unavailable for the City of Santee.

As required by the 2007 Permit, the Co-Permittees developed and implemented a Regional Education Program. The Co-Permittees retained a consultant to complete the mandated activities and each Co-Permittee provided covered a share of the costs as determined by a formula set out in the MOUs.

The implementation of the Regional Education Program was a separate mandated activity in addition to the implementation of jurisdictional educational programs by each Co-Permittee. The Regional Education Program does not overlap with jurisdiction education activities as the Regional Education Program was completed via contracted work, with the cost shared among the Co-Permittees. Regional education activities are targeted at the public. Because public outreach benefits from consistency,

all agencies elected to utilize a consultant, via the Education and Regional Sources Workgroup, to provide consistency to regional education activities.

Table 11 in Attachment 1 has been revised to include only the costs reported by the Education and Regional Sources Workgroup that were clearly targeted at educating the general public. These costs were associated with specific subtasks of the workgroup's "Task 3: Regional Residential Education Program." Subtasks that are focused on supporting education activities targeting the general public are listed below:

- Materials Development and Distribution (most often Subtask 3.A): This subtask was defined by the workgroup as work that focused on "Development of regional education outreach materials for dissemination to the public [that] will utilize a regional brand and will target pollutants outlined in the Regional Residential Education Plan." (Vol 13 p 10994)
- Partnership Development (most often Subtask 3.B): This subtask was defined by the workgroup as work to "Continue identifying new partners and support current partners that have a regional influence in the following categories: 1) Other governmental agencies; 2) Corporations; and 3) Non-governmental Agencies (NGOs)" (Vol 13 p 10994). The broad range of entities targeted for partnerships shows that this subtask was focused on providing education for the general public.
- Regional Branding¹⁴ (most often Subtask 3.C): This subtask was defined as work to "Manage [the] Regional Branding Program" (Vol 13 p 10994). The Regional Branding was associated with the development, review, and maintenance of materials and messaging used for materials distribution to general public audiences and mass media campaigns such as the program's logo.
- Market Research and Assessment Tools (often subtask 3.C, sometimes subtask 3.D): Work under this task included telephone survey, event survey, and associated data analysis. This work was undertaken to support the development of educational materials and inform the development and implementation of outreach and engagement efforts to the general public.
- Regional Website (often subtask 3.D, sometimes subtask 3.E): Work for this subtask was focused on the maintenance of and updates to a regional website. The website was designed to reach a general audience.

¹⁴ Sometimes referred to as "Regional Logo"

- Underserved Target Audience (often subtask 3.F): This subtask was defined by the workgroup as work to “develop and implement outreach strategies and materials to address low socioeconomic communities” (Vol 13 p 10995). This work focused on how to better engage more of the general public and underserved residential audiences.
- Mass Media Campaign (often subtask 3.G): This subtask was defined as work to “develop and implement mass media and PR campaign” (Vol 13 p 10996). These campaigns were designed to support the engagement of and outreach to the general public.
- Regional Events (often subtask 3.H): This subtask was defined as work to “coordinate community outreach events throughout San Diego County” (Vol 13 p 10996). Community outreach work targeted the general public.

Table 11 in Attachment 1 provides specific citations to where these costs are found in previously submitted documents.

b. Jurisdictional Educational Programs

i. Period considered for summation of costs for this category

The period of summation for jurisdictional educational programs is from March 24, 2008, which is the date that permittees were required to begin implementing their JURMP developed per the 2007 Permit requirements to June 26, 2015, which is the day before Co-Permittees were required to submit and begin implementing JRMPs that reflected requirements of the 2013 Permit. Jurisdictional educational program implementation is part of the JURMP requirements outlined in the 2007 Permit and Provision E of the 2013 Permit requires each Co-Permittee to continue implementing their 2007 JURMP until the new JRMP was implemented. New JRMPs were required to be submitted by June 27, 2015, with implementation of the new JRMPs beginning that same day.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the street sweeping and reporting costs for the 2007/2008 and 2012/2013 fiscal years. The 2007/2008 cost claimed should be 27.05% of the standard unit cost. This reflects that 99 days of the 366 days in fiscal year 2007/2008 were on or after March 24, 2008. The 2014/2015 cost claimed should be 98.90% of the standard unit cost. This reflects that 361 of the 365 days in fiscal year 2014/2015 were on or before June 26, 2015.

ii. Jurisdictional education program cost formula

The reasonable reimbursement formula for the costs of Jurisdictional Education Programs are as follows:

$$Reimbursement = \sum_{t=FY07/08}^{FY14/15} [(Education\ Costs)(Total)]_t$$

where “*Education Costs*” is the standard percentage of the total stormwater budget reported that is spent on jurisdiction education programs; and “*Total*” is a Co-Permittee’s total stormwater expenditures in a particular year.

The Commission noted that because Co-Permittees were required to have education programs during the 2001 Permit, they should not claim all of their 2007 Permit educational costs as reimbursable. While Co-Permittees may have been completing education that went beyond the 2001 Permit requirements during the term of the 2001 Permit, to get at the difference in cost, Co-Permittees have compared educational costs for several Co-Permittees that reported education program costs in the two years before the 2007 Permit was adopted (2005-2006 and 2006-2007) with the costs in full years after the 2007 Permit was in effect (beginning in 2008-2009 since 2007-2008 was partially under the 2001 Permit).

For each year, the education cost was compared to the total stormwater program cost, both of which were reported in the fiscal analysis sections of JURMP annual reports. Not all Co-Permittees reported education program costs as unique line items prior to the 2007 Permit, after which a standard fiscal reporting method that required reporting education as a line item was adopted. Data from Co-Permittees that reported education costs both before and after the 2007 Permit was used to perform this calculation. As shown in Table 14 in Attachment 1, the median value for education costs as a percentage of total stormwater program cost was 1.44% during the 2001 Permit years and 1.83% during the 2007 Permit years, an increase of 0.39%. If averages were used, the increase would be 1.72%, but the median is proposed to be conservative.

The Co-Permittees proposed updating the jurisdictional “*Education Costs*” of the total stormwater program budget to 0.39%.

17. Watershed Activities and Collaboration in the WURMP (Part E.2.f & E.2.g).

The total reimbursement for this element is determined by combining cost jurisdictional watershed activities, regional WURMP costs and meeting cost as described in detail below.

The Commission noted that WURMP related costs should be limited to the costs of developing an updated WURMP per the requirements of the 2007 Permit and watershed activities. Corresponding modifications to the proposed RRM are proposed below.

a. Watershed Workgroup Cost Share Contributions

The Co-Permittees no longer propose an RRM for this category. Invoices for services provided via contract services will be reviewed to determine which charges are for work considered an unfunded mandate, such as the WURMP update. The Co-Permittees anticipate submitting those charges as part of claims based on actual cost.

b. Jurisdiction Watershed Activities

i. Period considered for summation of costs for this category

The period of summation for jurisdiction watershed activities is from March 24, 2008, which is the date that permittees were required to begin implementing their JURMP developed per the 2007 Permit requirements, to June 26, 2013, which is the day before the effective date of the 2013 Permit. Jurisdiction Watershed Activities are elements of the WURMP requirements outlined in the 2007 Permit. The 2013 Permit did not include a provision requiring Co-Permittees to continue implementing WURMP requirements while Water Quality Improvement Plan (WQIPs) were in development, which is why the period for Jurisdiction Watershed activities ends when the 2013 Permit went into effect.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the jurisdiction watershed activities costs for the 2007/2008 and 2012/2013 years. The 2007/2008 cost claimed should be 27.05% of the standard unit cost. This reflects that 99 days of the 366 days in fiscal year 2007/2008 were on or after March 24, 2008. The 2012/2013 costs claimed should be 98.90% of the costs. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

ii. Jurisdiction Watershed Activities cost formula

Following consideration of the Commission's comments I have reevaluated the reasonable reimbursement formula for jurisdiction watershed activities and have developed an updated unit cost and formula that better reflects the implementation of jurisdiction watershed activities during the period described above.

The reasonable reimbursement formula is as follows:

$$Reimbursement = \sum_{t=FY08/09}^{FY12/13} [4 * Watersheds * Jurisdictional Activities]_t$$

where “*Jurisdictional Activities*” is the cost to perform one jurisdictional activity per permittee adjusted annually for the CPI and “*Watersheds*” is the number of watersheds in which a Co-Permittee is located. For the purposed of the RRM, it is assumed that each Co-Permittee performed the minimum number of watershed activities required under the 2007 Permit in each watershed.

iii. Standard unit cost for Jurisdiction Watershed Activities

The Commission’s comments on the proposed jurisdictional watershed activities RRM noted that the RRM was based on Initial Co-Permittee Declarations that estimated activity costs. The Commission also noted that costs for activities were not provided after the activities were completed, and that actual costs reported after completing specific activities would be a more reliable source of cost data.

In response to the Commission’s comments, watershed activities with reported costs were identified in WURMP annual reports, and those costs are now used as the basis for the proposed unit cost. This data set includes 71 activities; each watershed management area within the area subject to the 2007 Permit is included in this data set. The activity costs were included in WURMP annual reports from 2008-2009 through 2011-2012. Activities that were reported to be funded by exclusively grant or state proposition funding were excluded from this subset as were activities reported with “costs not to exceed” a set amount. For activities that were partially funded by grant or proposition funding, only the portion of costs that were matching or supplemental costs provided by a Co-Permittee were included.

The Commission also noted that it was unclear why certain costs, such as mileage, might be applicable to watershed activities. Many watershed activities include field work to make observations, interact with the public, etc. Because these activities take place away from Co-Permittees’ offices, mileage or other transportation costs are appropriate. Where a watershed activity can be completed without transportation being needed, mileage and other transportation costs are not included in the activity’s cost.

The *Jurisdictional Activities* is \$5,000. See Attachment 1, Table 17 for a table of the activities and costs, along with references. While the Co-Permittees acknowledge that WURMP annual reports did not include cost data for every watershed activity, the proposed unit cost is based on a substantial number of watershed activities and is believed to be reasonably representative of the typical cost to perform a watershed activity.

The Co-Permittees propose the following changes to the jurisdictional watershed activities RRM:

- Revise the *Jurisdictional Activities* to \$5,000 per jurisdictional watershed activity implemented per fiscal year.
- Because the data set used to develop the updated unit cost includes costs from several years spanning most of the reimbursement period, use a fixed unit cost (no CPI adjustment) for all years within the reimbursement period.
- Revise the RRM period to begin in 2008-2009 to address concerns that work in 2007-2008 may reflect some work completed per the terms of the 2001 Permit.

c. Regional Watershed Activities – WURMP

i. Period considered for summation of costs for this category

The period of summation for Regional Watershed Activities is from March 24, 2008, which is the date that permittees were required to begin implementing their JURMP developed per the 2007 Permit requirements, to June 26, 2013, which is the day before the effective date of the 2013 Permit. Regional Watershed Activities are elements of the WURMP requirements outlined in the 2007 Permit. The 2013 Permit did not include a provision requiring Co-Permittees to continue implementing WURMP requirements while WQIPs were in development, which is why the period for Regional Watershed Activities ends when the 2013 Permit went into effect.

ii. Regional Watershed Activities – WURMP cost formula

The reasonable reimbursement formula for Regional Watershed Activities – WURMP is as follows:

$$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(WURMP \text{ Costs})(MOU)]_t$$

where “*WURMP Costs*” are the actual annual costs for the Regional WURMP Working Group to develop and maintain the Regional Watershed Activities Database, and “*MOU*” is the Co-Permittees’ proportional share of the cost based on the MOUs. The Regional Watershed Activities Database was developed to track the watershed activities newly required by the 2007 Permit. Because this database was solely developed in response to a 2007 Permit new requirement, it is a reimbursable activity. A more detailed table of costs used to develop the RRM and specific citations for these costs is included in Attachment 1, Table 19.

d. Watershed Workgroup Meetings

i. Period considered for summation of costs for this category

The period of summation for watershed workgroup meetings contributions is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. The watershed workgroups are an element of Co-Permittee collaboration that required significant planning and development work that took place before Co-Permittees were required to begin implementing WURMPs that were developed per the 2007 Permit requirements. After WURMP implementation began, meetings to coordinate implementation of and reporting on the WURMPs continued throughout the period the 2007 Permit was in effect. The requirements for watershed workgroup collaboration related to the WURMP did not carry over in the same capacity following the effective date of the 2013 Permit (June 27, 2013). After the effective date of the 2013 Permit, watershed groups meetings were primarily focused on work to develop and implement Water Quality Improvement Plans required under the 2013 Permit.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the watershed workgroup meetings costs for the 2006/2007 and 2012/2013 years. The 2006/2007 cost claimed should be reduced to 43.29% of the cost. This reflects that 158 of the 365 days in fiscal year 2006/2007 were on or after January 24, 2007. The 2012/2013 costs claimed should be 98.90% of the costs. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

ii. Watershed workgroup meetings cost formula

The formula and components of the formula were determined by reviewing the Co-Permittee Declarations, 2011 Surveys focused on mandated meetings. Using this information, I have determined that a formula based on a standard unit cost would be most appropriate for this category. The reasonable reimbursement formula for Watershed Workgroup Meetings is as follows:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(Rate)(\# Attendees)(\# Meetings)]_t$$

where “Rate” is the cost of a Co-Permittee employee to attend one regional workgroup meeting; “# Attendees” is the number of representatives for each Co-Permittee that attended the watershed workgroup meeting; and “# Meetings” is the number of Watershed Workgroup meetings attended by a Co-Permittee.

iii. Watershed workgroup meetings standard unit cost

The 2007 Permit's new requirement to develop an updated WURMP and develop new watershed activities were the primary focus of watershed workgroup meetings from the 2007 Permit's effective date through the submittal of the updated WURMPs in March 2008. After the submittal of the WURMP update, watershed workgroup meetings regularly included discussion of watershed activities.

The Co-Permittees proposed the following changes to the watershed workgroup meeting RRM:

- For meetings that occurred between the 2007 Permit effective date and the WURMP update submittal in March 2008, the RRM unit cost per attending meetings is reduced by 50%, from \$262.88 to \$131.44. While most of the discussion during those meetings is believed to have related to 2007 Permit requirements, this reduction accounts for discussion of other topics during those meetings.
- For meetings that occurred after the WURMP update submittal in March 2008, the RRM unit cost is reduced by 90%, from \$262.88 to \$26.29.

WURMP annual reports, which include lists of meetings with topics covered during the meetings, are included at Vol. 13, pp. 1-10,756.

18. RURMP (Parts F.1., F.2. & F.3).

a. Period considered for summation of costs for this category

The period of summation for RURMP cost share contributions is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. RURMP planning began after the 2007 Permit was adopted and continued until the effective date of the 2013 Permit because the 2013 Permit did not require a RURMP or RURMP activities.

b. RURMP cost formula and components

The formula and components of the formula were determined by reviewing the County Watershed Workgroup Expenditure Records and Regional Cost Sharing Documentation. Using this information, I have determined that a reasonable reimbursement formula based on actual costs is most appropriate for this category. The reasonable reimbursement formula for the costs of the RURMP is as follows:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(Cost\ Share)(MOU)]_t$$

where “*Cost Share*” is the annual cost share values invoiced by the County, and “*MOU*” is the Co-Permittee’s proportional share of the cost based on the MOUs. Actual costs were identified for only some years within the appropriate reimbursement time frame identified in item 18.a above.

RURMP costs are Regional Workgroup Expenditures specifically designated as allocated for RURMP annual reporting. These expenditures were reported by the following workgroups: Fiscal, Reporting, and Assessment (“FRA”); Industrial and Commercial Sources (“ICS”), Monitoring (“MON”), Municipal (“MUNI”), WURMP, Education and Regional Sources (“ERS”), and Land Development (“LD”). The RURMP expenditures reported by these workgroups were removed from the workgroup expenditures presented for some of these workgroups in other categories to avoid double counting.

The Commission expressed concern that proposed RURMP costs may overlap with other categories or otherwise go beyond what is allowed to be reimbursed.

Many of the items discussed in the Revised Proposed Decision, such as a Regional Residential Education Program and developing standardized fiscal analysis method, are covered in other RRM. As described in Claimants’ Rebuttal, the proposed RRM for the RURMP covers only Co-Permittee workgroups’ costs for RURMP annual reporting. These costs do not overlap with costs included in any other RRM. RURMP annual reporting is a reimbursable activity because it is required by the 2007 Permit and is part of implementing the RURMP. A more detailed table of costs used to develop the RURMP RRM and specific citations for these costs is included in Attachment 1, Table 12.

19. Program Effectiveness Assessment (Parts I.1 & I.2).

The total reimbursable for program effectiveness assessment is determined by combining the jurisdictional program effectiveness assessment and Regional FRA Workgroup expenditures as described in detail below.

a. Jurisdictional Program Effectiveness Assessment

i. Period considered for summation of costs for this category

The period of summation for jurisdiction program effectiveness assessment is from March 24, 2008, which is the date that permittees were required to begin implementing their JURMP developed per the 2007 Permit requirements, to June 26, 2013, which is the day before the effective date of the 2013 Permit. The rationale for ending this period at the effective date of the 2013 Permit is the same as that described for street sweeping and catch basin cleaning reported in item 12 above.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the program effectiveness assessment costs for the 2007/2008 and 2012/2013 years. The 2007/2008

cost claimed should be 27.05% of the standard unit cost. This reflects that 99 days of the 366 days in fiscal year 2007/2008 were on or after March 24, 2008. The 2012/2013 costs claimed should be 98.90% of the reported costs. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

ii. Jurisdictional Program Effectiveness Assessment cost formula

The formula and components of the formula were determined by reviewing the Co-Permittees' JURMP Annual Reports and the D-Max Files. Using this information, I have determined that a reasonable reimbursement formula based on a standard percentage is most appropriate. The reimbursement formula for the costs of jurisdictional program effectiveness assessment is as follows:

$$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(Effectiveness)(Total)]_t$$

where "*Effectiveness*" is the standard percentage of the total stormwater expenditures spent by Co-Permittees on jurisdictional program effectiveness assessment, and "*Total*" is the Co-Permittees' annual total stormwater expenditures as reported in JURMP annual reports.

iii. Standard percentage for Jurisdictional Program Effectiveness Assessment costs

The standard percentage of Co-Permittees' total stormwater budget reasonably estimated to be spent on jurisdictional program effectiveness assessment is 0.37%. This number was revised compared to the previous RRM submittal based on additional data review and analysis completed in response to the Commission's comments (see Attachment 1, Table 20). The standard percentage of total stormwater budget spent by Co-Permittees on assessing jurisdictional program effectiveness was determined by evaluating the actual costs charged to several Co-Permittees for work completed by D-Max to fulfill the program effectiveness assessment requirements and costs for program effectiveness assessment implementation reported by Co-Permittees in JURMP annual reports where available.¹⁵ The D-Max costs are a conservative estimate because they only include program effectiveness work performed as part of annual reporting and do not include any other program effectiveness assessment work Co-Permittees completed.

¹⁵ Data from the following agencies was used in the calculation of the standard percentage: the cities of La Mesa, National City, Poway, San Diego, and Santee.

The Commission expressed that the source of jurisdictional program effectiveness assessment costs used to develop the RRM was not clear. The procedure was based on data reported by Co-Permittees in the fiscal analysis components of their JURMP annual reports. In the fiscal analysis, each Co-Permittee reports their total stormwater program costs from the applicable reporting year. Certain Co-Permittees also reported how much of that total cost was attributable to program effectiveness assessment. The effectiveness assessment cost was divided by the total stormwater program cost to yield the percent of the total stormwater cost attributable to program effectiveness assessment. A more detailed table of costs used to develop the RRM and associated citations is provided in Attachment 1, Table 20.

The Commission noted that claiming all jurisdictional program effectiveness costs is not supported because the 2001 Permit also required some level of jurisdictional program effectiveness assessment.¹⁶ While the 2001 Permit required some effectiveness assessment, the 2007 Permit was a significant increase in effectiveness assessment requirements. The Co-Permittees developed and implemented procedures to perform assessments of the six levels discussed in the 2007 Permit. This was a new effort that served as a model for other agencies in the State and was later incorporated into Statewide guidance for municipal stormwater programs by the California Stormwater Quality Association.¹⁷ The Co-Permittees also formed the FRA Workgroup (discussed in more detail below) to provide guidance on new program assessment procedures necessary to meet the 2007 Permit requirements. These large changes indicate that complying with the 2007 Permit's effectiveness assessment requirements was a substantial increase over the 2001 Permit requirements.

The 2007 Permit's effectiveness assessment requirements were a major increase over the relatively minimal requirements of the 2001 Permit. This suggests that almost all of the reported program effectiveness assessment costs under the 2007 Permit were new costs. However, to account for some overlap in program effectiveness requirements across the two permits, the Co-Permittees propose reducing the RRM standard percentage of stormwater program costs (as reporting in the fiscal analysis sections of jurisdictional annual reports) by 25%,¹⁸ which reduces it from 0.37% to 0.28%. **The new value for *Effectiveness* is 0.28%.**

¹⁶ Revised Proposed Decision, pp 177-178

¹⁷ California Stormwater Quality Association, 2015. *A Strategic Approach to Planning for and Assessing the Effectiveness of Stormwater Programs*. Jon Van Rhyn of the County of San Diego is the first listed author. Available online at <https://www.casqa.org/resources/programmatic-effectiveness-assessment/guidance-documents/strategic-approach>

¹⁸ The City of San Diego reported program effectiveness assessment costs in 2006-2007, before the 2007 Permit was adopted, and in 2007-2008 and 2008-2009. The 2006-2007 program effectiveness assessment cost was 3.03 % of the

b. Regional FRA Workgroup Expenditures

i. Period considered for summation of costs for this category

The period of summation for FRA workgroup expenditures is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. FRA activities including developing standard assessment practices and methods for reporting them; this planning activity began after the 2007 Permit was adopted. The FRA workgroup continued to support Co-Permittees in their effectiveness assessment work throughout the duration of the 2007 Permit. After the 2013 Permit went into effect, program effectiveness reporting was no longer necessary for the same reason as described under item 17.a above, so FRA workgroup costs are not claimed after that date.

ii. FRA Workgroup Expenditure cost formula and components

The formula and components of the formula were determined by reviewing the County Watershed Workgroup Expenditure Records and Cost-Sharing MOUs. Using this information, I have determined that a reasonable reimbursement formula based on actual costs was most appropriate as there is an already known distribution of funds between the Co-Permittees (MOUs) to allow for later individual claims to be submitted.

The reasonable reimbursement formula for the costs of the Regional FRA Workgroup Expenditures is:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(FRA\ Workgroup\ Costs)(MOU)]_t$$

where “*FRA Workgroup Costs*” are the shared costs for developing and implementing the Regional FRA Workgroup Expenditures, and “*MOU*” is the Co-Permittees’s proportional share of the cost based on the MOUs.

As noted on pages 170 to 171 of Revised Proposed Decision, developing a standardized fiscal analysis method and facilitating program effectiveness assessment are reimbursable activities. The FRA was formed for these purposes.¹⁹ The other activities the FRA workgroup performed were

City’s stormwater program costs (\$1,351,292/\$44,602,619 = 3.03%; numbers from Vol. 6 pp 2599-2600). As shown in Attachment 1, Table 20, the average program effectiveness assessment cost from 2007-2008 and 2008-2009, after the 2007 Permit was adopted (2007-2008: 16.84%; 2008-2009: 10.07%) was 13.46%. The 2006-2007 number (3.03%) was about 22.5% of the average for the 2007-2008 and 2008-2009. This suggests removing about 25% of the program effectiveness assessment costs to account for 2001 Permit program effectiveness assessment costs is reasonable.

¹⁹ See workgroup duties description on page 12 of the 2007 Co-Permittee MOU, Section E.1.

overseeing development of the Long Term Effectiveness Assessment (“LTEA”) and RURMP development and reporting; both of those activities are also reimbursable and are included in separate RRM. The FRA Workgroup RRM includes the FRA workgroup expenditures, less the workgroup meeting support, LTEA and RURMP development and reporting costs included in other categories. Development of the Report of Waste Discharge, which was not identified as a reimbursable activity, is also excluded. Because in 2010-2011 the FRA Workgroup only reported costs related to the Report of Waste Discharge or LTEA, costs from 2010-2011 have been excluded. Therefore, it is limited to reimbursable activities. A table of FRA Workgroup costs and citations for those costs is included in Attachment 1, Table 15.

20. LTEA (Part I.5).

a. Period considered for summation of costs for this category

The period of summation for LTEA shared costs is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. The LTEA was a work product prepared per the requirements of the 2007 Permit and submitted to the San Diego Water Board in June 2011. Practically speaking, the costs to develop the LTEA were primarily incurred around and leading up to that time, as described in further detail below.

b. LTEA cost formula and components

The formula and components of the formula were determined by reviewing the Regional Cost Sharing Documentation and Cost-Sharing MOUs. Using this information, I have determined that a reasonable reimbursement formula based on actual costs was most appropriate as there is an already known distribution of funds between Co-Permittees (MOUs) to allow for later individual claims to be submitted.

The reasonable reimbursement formula for the costs of the LTEA is as follows:

$$Reimbursement = \sum_{t=FY07/08}^{FY12/13} [(Contractor Costs)(MOU)]_t$$

where “*Contractor Costs*” are actual costs of the contractors needed to assess the long-term effectiveness of the projects as reported by the County, and “*MOU*” is the Co-Permittees’ proportional share of the cost based on the MOUs. A revised table of expenses identified under this category is included in Attachment 1, Table 16.

The Commission expressed concern about claiming LTEA costs across a broad range of fiscal years, including years when it seems unlikely that work on the

LTEA would be completed. The Commission also expressed concern about the scope of what activities would be covered under the LTEA RRM and also expressed concern that specific page numbers for the costs claimed had not been referenced.

As described in the Claimants' Rebuttal, LTEA costs are limited to the cost of preparing and submitting the LTEA as required by the 2007 Permit. This includes consultant costs and contract management. Costs for LTEA preparation were identified only in 2010-2011 and therefore are also claimed only for that year. These costs were shared among Co-Permittees according to the Co-Permittees' MOU. Therefore, the RRM proposes that each Co-Permittee may claim its percentage of the cost share times the total LTEA preparation cost. A table of LTEA costs and references to support those costs is provided in Attachment 1, Table 16.

21. All Permittee Collaboration (Part L.1.a.(3)-(6)).

The reimbursement for all permittee collaboration is determined by combining the support for costs for the regional workgroup meetings, the costs for participating in regional workgroup meetings, and the workgroup expenditures as described in detail below.

In the Revised Proposed Decision, the Commission states the following:

The Parameters and Guidelines also authorize reimbursement for the collaboration required by the first sentence in Part L.1. as an ongoing reimbursable activity, which is identified in the Parameters and Guidelines for other approved sections of the test claim permit where collaboration is expressly required (i.e., the Educational Component of the Jurisdictional Urban Runoff Management Program, the requirement to update the Watershed Urban Runoff Management Program, the Regional Urban Runoff Management Program, and the Long Term Effectiveness Assessment). Reimbursement for collaboration is limited to what the Commission approved in its Decision.

The Co-Permittees' RRM for all Co-Permittee collaboration did not include collaboration costs related to the WURMP, RURMP, or the LTEA because those are included in other RRM. In response to the Commission's direction, the Co-Permittees propose limiting the scope of the RRM related to all Co-Permittee collaboration to the educational component of the JURMP, which was carried out through the Educational and Residential Sources Workgroup.

a. Support for Regional Workgroup Meetings

i. Period considered for summation of costs for this category

The period of summation for regional workgroup meetings is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. These meetings included program planning and development in response to 2007 Permit requirements that began after the 2007 Permit was adopted. The regional workgroup continued to support Co-Permittees throughout the duration of the 2007 Permit. After the 2013 Permit went into effect, regional workgroup meetings were no longer required in the same way as they had been under the 2007 Permit, so regional workgroup costs are not claimed after that date.

ii. Regional Workgroup Meeting Support cost formula and components

The formula and components of the formula were determined by reviewing the Regional Cost Sharing Documentation. Using this information, I have determined that a reasonable reimbursement formula based on actual costs was most appropriate. The reasonable reimbursement formula for the costs associated with support for Regional Workgroup Meetings is as follows:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(County Cost)(MOU)]_t$$

where “*County Cost*” are the actual costs spent to support the various all Co-Permittee meetings; and “*MOU*” is the Co-Permittees’ proportional share of the costs based on the MOUs. The *County Costs* in this formula are limited workgroup support costs to support provided for the Educational and Residential Sources Workgroup. A revised table of expenses identified under this category is included in Attachment 1, Table 18.

b. Regional Workgroup Meeting Participation

i. Period considered for summation of costs for this category

The period of summation for regional workgroup meeting participation is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. The rationale is the same as that provided for item 19.a above.

In accordance with the above reimbursement period, the following conservative adjustments are proposed to the regional workgroup meeting participation costs for the 2006/2007 and 2012/2013 years. The 2006/2007 cost claimed should be reduced to 43.29% of the cost. This reflects that 158 of the 365 days in fiscal year 2006/2007 were on or after January 24, 2007. The 2012/2013 costs claimed should be 98.90% of the reported

costs. This reflects that 361 of the 365 days in fiscal year 2012/2013 were on or before June 26, 2013.

ii. Regional Workgroup Meeting Participation cost formula

The formula and components of the formula were determined by reviewing the Initial Co-Permittee Declarations. Using this information, I have determined that a formula based on a standard unit cost would be most appropriate for this category. The reasonable reimbursement formula for Regional Workgroup Meetings is as follows:

$$Reimbursement = \sum_{t=FY06/07}^{FY12/13} [(Rate)(\#Meeting Attendances)]_t$$

where “*Rate*” is the cost of the Co-Permittee employee’s time per regional workgroup meeting, and “*# Meeting Attendances*” is the number of times a representative of a Co-Permittee attended a regional workgroup meeting. The Co-Permittees proposed modifying the RRM to limit meeting participation costs to participation in the Educational and Residential Sources Workgroup.

The Commission also expressed concern that all Co-Permittees were assumed to attend every meeting. To clarify, the proposed RRM would set a formula that Co-Permittees could use when making claims for reimbursement for meeting participation. The formula sets a unit cost for attending a meeting. When submitting a claim, each Co-Permittee will supply the number of meetings its staff attended and supporting documentation to demonstrate the meetings were in fact attended.

iii. Regional Workgroup Meeting Participation standard unit cost

The value of *Rate* is the same as described in Section 17.d above (Watershed Workgroup Meetings) and is \$262.88.

c. Regional Workgroup Expenditures

i. Period considered for summation of costs for this category

The period of summation for regional workgroup meeting participation is from January 24, 2007, or the effective date of the 2007 Permit, to June 26, 2013, which is the day before the effective date of the 2013 Permit. The rationale is the same as that provided for item 19.a above.

ii. Rationale for selection of cost formula format used for this category

Regional Workgroup Expenditure costs were shared among Co-Permittees per an agreed upon MOU or similar cost sharing agreement and were

documented in workgroup and cost sharing records as described in more detail below. This information can be used to identify the cost share of each Co-Permittee.

iii. Regional Workgroup Expenditure cost formula and components

Given that the Commission had directed that only certain collaboration among workgroups is reimbursable, and this RRM was developed to include collaboration among all workgroups, the Co-Permittees no longer propose an RRM for this category.

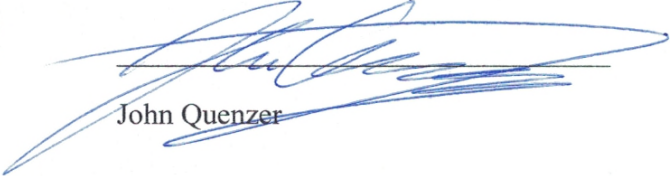
22. Total Reimbursement (Part L.1.a.(3)-(6)).

The foregoing RRM's allow for each Co-Permittee to submit individually for reimbursement in each of the categories with supporting documentation evidencing their participation in and implementation of each unfunded mandate category. The total reimbursement amount for each Co-Permittee will be the sum of the Co-Permittees' reimbursement amount for each category described above.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

May 16, 2025, San Diego, CA

(Date and Place)


John Quenzer

Attachment 1: RRM Data Source Detailed Citations

Table 1: Supporting Data for Unit Cost for Reporting on Conveyance System Cleaning (2011 Surveys and Co-Permittee Declarations)¹

Co-Permittee	2007-2008	2008-2009	2009-2010	Average Annual Reported Conveyance System Cleaning Reporting Costs (Average of FY 07/08 to FY 09/10 costs)	Location of data in documentation
Carlsbad	\$531	\$547	\$563	\$547.00	Vol. 1, page 25
Chula Vista	\$111,885	\$115,242	\$118,700	\$115,275.67	Soriano Declaration, par. 14 and 15
County of San Diego - Roads	\$3,079	\$3,171	\$3,266	\$3,172.00	Barret Declaration for Rebuttal, Exhibit B, page 4
El Cajon	\$31,994	\$32,954	\$33,942	\$32,963.33	Vol. 1, page 52
Escondido	\$16,703	\$17,204	\$17,721	\$17,209.33	Rivera Declaration, par. 17 and 18
Imperial Beach	\$591	\$240	\$270	\$367.00	Vol. 1, page 93
La Mesa	\$8,183	\$8,429	\$8,682	\$8,431.33	Vol. 1, page 107
Lemon Grove	\$30,292	\$31,200	\$32,136	\$31,209.33	Vol. 1, page 120
Poway	\$1,291	\$1,330	\$1,370	\$1,330.33	Vol. 1, page 146
San Marcos	\$0	\$19,555	\$112,669	\$44,074.67	Vol. 1, page 185
Santee	\$1,529	\$1,575	\$1,622	\$1,575.33	Vol. 1, page 200
Solana Beach	\$913	\$940	\$968	\$940.33	King Declaration, par. 9
MEDIAN				\$5,801.67	
MEDIAN if 2007-2008 data is excluded				\$5,887.00	

Note

¹ The reimbursement category is referred to as reporting on conveyance system cleaning, but it includes the costs of reporting both on conveyance system cleaning and inspections. Values in the table above are the summation of reported values for reporting on inspections and reporting on cleanings.

Table 2: Supporting Data for Unit Cost for Reporting on Conveyance System Cleaning (Co-Permittee Declarations Only)

Co-Permittee	2007-2008	2008-2009	2009-2010	Average Annual Reported Conveyance System Cleaning Reporting Costs (Average of FY 07/08 to FY 09/10 costs)	Location of data in documentation
Chula Vista	\$111,885.00	\$115,242.00	\$118,700.00	\$115,275.67	Soriano Declaration, par. 14 and 15
Escondido	\$16,703.00	\$17,204.00	\$17,721.00	\$17,209.33	Rivera Declaration, par. 17 and 18
Solana Beach	\$913.00	\$940.00	\$968.00	\$940.33	King Declaration, par. 9
MEDIAN				\$17,209.33	
MEDIAN if 2007-2008 data is excluded				\$17,462.50	

Note

The reimbursement category is referred to as reporting on conveyance system cleaning, but it includes the costs of reporting both on conveyance system cleaning and inspections.

Table 3: Supporting Data for Unit Cost for Reporting on Street Sweeping (2011 Surveys and Co-Permittee Declarations)

Co-Permittee	2007-2008	2008-2009	2009-2010	Average Annual Reported Street Sweeping Reporting Costs (Average of FY 07/08 to FY 09/10 costs)	Location of data in documentation
Chula Vista	\$16,097.00	\$16,097.00	\$16,097.00	\$16,097.00	Soriano Declaration, par. 12
Coronado	\$1,018.00	\$1,049.00	\$1,080.00	\$1,049.00	Godby Declaration, par. 9
El Cajon	\$31,993.00	\$32,953.00	\$33,942.00	\$32,962.67	Vol. 1, page 275
Escondido	\$5,963.00	\$6,142.00	\$6,326.00	\$6,143.67	Rivera Declaration, par. 15
Lemon Grove	\$138.00	\$138.00	\$138.00	\$138.00	Vol. 1, page 307
National City	\$893.00	\$920.00	\$947.00	\$920.00	Manganiello Declaration, par. 7
Oceanside	\$65,958.00	\$67,937.00	\$69,975.00	\$67,956.67	Vol. 1, page 323
City of San Diego	\$25,111.00	\$25,864.00	\$26,640.00	\$25,871.67	Vol. 1, page 347
County of San Diego	\$3,079.00	\$3,171.00	\$3,266.00	\$3,172.00	Vol. 1, page 339
MEDIAN				\$6,143.67	
MEDIAN if 2007-2008 data is excluded				\$6,234.00	

Table 4: Supporting Data for Unit Cost for Reporting on Street Sweeping (Co-Permittee Declarations Only)

Co-Permittee	2007-2008	2008-2009	2009-2010	Average Annual Reported Street Sweeping Reporting Costs (Average of FY 07/08 to FY 09/10 costs)	Location of data in documentation
Chula Vista	\$16,097.00	\$16,097.00	\$16,097.00	\$16,097.00	Soriano Declaration, par. 12
Coronado	\$1,018.00	\$1,049.00	\$1,080.00	\$1,049.00	Godby Declaration, par. 9
Escondido	\$5,963.00	\$6,142.00	\$6,326.00	\$6,143.67	Rivera Declaration, par. 15
National City	\$893.00	\$920.00	\$947.00	\$920.00	Manganiello Declaration, par. 7
MEDIAN				\$3,596.33	
MEDIAN if 2007-2008 data is excluded				\$3,649.25	

Table 5: Supporting Data for Unit Cost for Catch Basin Cleaning: In-House Costs (2011 Surveys and Co-Permittee Declarations)

Co-Permittee^{1,2,3}	Fiscal Year	Total In-House Cleaning Cost	Reporting Cost	Training Cost	Adjusted In-House Cost⁴	Number of In-house Cleanings	In-House Cleaning Unit Cost	Location of Data in Documentation
Chula Vista	2007-2008	-. ⁵	-. ⁵	-. ⁵	\$412,747	2324	\$177.60	Soriano Declaration, par. 19 and 20
Chula Vista	2008-2009	-. ⁵	-. ⁵	-. ⁵	\$674,099	3830	\$176.00	
Chula Vista	2009-2010	-. ⁵	-. ⁵	-. ⁵	\$519,917	3899	\$133.35	
County - Flood Control	2007-2008	\$278,664	\$0	\$0	\$278,664	189	\$1,474.41	Rebuttal Barret Decl, Ex. A, page 4
County - Flood Control	2008-2009	\$440,176	\$0	\$0	\$440,176	179	\$2,459.08	
County - Flood Control	2009-2010	\$307,904	\$0	\$0	\$307,904	191	\$1,612.06	
El Cajon	2007-2008	\$58,222	\$15,997	\$0	\$42,225	480	\$87.97	Davies Declaration, par. 14 and 15
El Cajon	2008-2009	\$59,479	\$16,477	\$0	\$43,002	486	\$88.48	
El Cajon	2009-2010	\$60,774	\$16,971	\$0	\$43,803	490	\$89.39	
Escondido	2007-2008	-. ⁵	-. ⁵	-. ⁵	\$379,382	139	\$2,729.37	Rivera Declaration, par. 24 and 25
Escondido	2008-2009	-. ⁵	-. ⁵	-. ⁵	\$390,764	172	\$2,271.88	
Escondido	2009-2010	-. ⁵	-. ⁵	-. ⁵	\$408,650	376	\$1,086.84	
Imperial Beach	2007-2008	\$34,163	\$197	\$2,359	\$31,607	36	\$877.97	Vol. 1, page 93
Imperial Beach	2008-2009	\$24,822	\$80	\$1,163	\$23,579	31	\$760.61	
Imperial Beach	2009-2010	\$27,299	\$90	\$611	\$26,598	56	\$474.96	
La Mesa	2007-2008	\$65,526	\$3,069	\$540	\$61,917	800	\$77.40	Vol. 1, page 107
La Mesa	2008-2009	\$60,516	\$3,161	\$540	\$56,815	800	\$71.02	
La Mesa	2009-2010	\$80,558	\$3,256	\$540	\$76,762	800	\$95.95	
Lemon Grove	2007-2008	\$160,409	\$15,146	\$0	\$145,263	60	\$2,421.05	Costs: Vol. 1, page 120
Lemon Grove	2008-2009	\$165,222	\$15,600	\$0	\$149,622	68	\$2,200.32	

Co-Permittee^{1,2,3}	Fiscal Year	Total In-House Cleaning Cost	Reporting Cost	Training Cost	Adjusted In-House Cost⁴	Number of In-house Cleanings	In-House Cleaning Unit Cost	Location of Data in Documentation
Lemon Grove	2009-2010	\$170,178	\$16,068	\$0	\$154,110	68	\$2,266.32	2007-2008 number cleaned: Vol 5, page 133 2008-2009 number cleaned: Vol 5, page 403 2009-2010 number cleaned: Vol 5, page 496
Poway	2007-2008	\$17,924	\$430	\$271	\$17,223	170	\$101.31	Vol. 1, page 146
Poway	2008-2009	\$13,634	\$443	\$279	\$12,912	151	\$85.51	
Poway	2009-2010	\$10,012	\$457	\$288	\$9,267	68	\$136.28	
City of San Diego	2009-2010	\$1,808,509	\$0	\$282,112	\$1,526,397	5536	\$275.72	Vol. 1, page 171
San Marcos	2007-2008	\$18,017	\$0	\$1,485	\$16,532	100	\$165.32	Vol. 1, page 185
San Marcos	2008-2009	\$50,886	\$19,555	\$1,531	\$29,800	300	\$99.33	
San Marcos	2009-2010	\$213,565	\$112,669	\$17,628	\$83,268	941	\$88.49	
Santee	2007-2008	\$95,972	\$1,529	\$24,729	\$69,714	27	\$2,582.00	Vol. 1, page 200
Santee	2008-2009	\$99,987	\$1,575	\$25,469	\$72,943	43	\$1,696.35	
Santee	2009-2010	\$103,900	\$1,622	\$26,232	\$76,046	40	\$1,901.15	
Solana Beach	2007-2008	-. ⁵	-. ⁵	-. ⁵	\$1,479	17	\$87.00	King Declaration, par. 10 and 11
Solana Beach	2008-2009	-. ⁵	-. ⁵	-. ⁵	\$1,523	13	\$117.15	
Solana Beach	2009-2010	-. ⁵	-. ⁵	-. ⁵	\$1,569	26	\$60.35	
Vista	2007-2008	-. ⁵	-. ⁵	-. ⁵	\$132,937	1451	\$91.62	Conley Declaration, par. 15 and 16
Vista	2008-2009	-. ⁵	-. ⁵	-. ⁵	\$136,792	1569	\$87.18	

Co-Permittee^{1,2,3}	Fiscal Year	Total In-House Cleaning Cost	Reporting Cost	Training Cost	Adjusted In-House Cost⁴	Number of In-house Cleanings	In-House Cleaning Unit Cost	Location of Data in Documentation
Vista	2009-2010	- ⁵	- ⁵	- ⁵	\$140,763	1562	\$90.12	

¹ Data from the City of Encinitas for all three years was excluded. A total cleaning cost was provided, but the numbers of catch basins cleaned entered in the 2011 Survey were the default values in the survey (250, 225, and 200), which indicates that actual numbers cleaned were not provided. Numbers of catch basins cleaned could not be identified in the City of Encinitas JRMP Annual Reports for these years.

² Data from the City of Oceanside for all three years was excluded. A total cleaning cost was provided, but the numbers of catch basins cleaned entered in the 2011 Survey were significantly different than numbers reported in the City's JRMP annual reports. Because the true number of catch basins cleaned could not be determined, a unit cost could not be calculated.

³ Data from the City of San Diego in 2007-2008 and 2008-2009 was excluded because the City's response in the 2011 Survey stated that numbers of catch basins cleaned in those years was not known and was assumed to be the same as 2009-2010.

⁴ Adjusted In-House Cost = Total In-House Cleaning Cost – Reporting Cost – Training Cost

⁵ The adjusted cost (total – reporting – training) was directly reported in a declaration, and the citation refer to this adjusted total. Therefore, the overall (unadjusted) total, reporting, and training costs are not included in this table.

Table 6: Supporting Data for Unit Cost for Catch Basin Cleaning: Contract Costs (2011 Surveys)

Co-Permittee ^{1,2}	Fiscal Year	Total Contract Cleaning Cost	Reporting Cost	Training Cost	Adjusted Contract Cost ³	Number of Contract Cleanings	Contract Cleaning Unit Cost	Location of Data in Documentation
Carlsbad	2007-2008	\$3,254.00	\$0.00	\$0.00	\$3,254.00	10	\$325.40	Vol. 1, page 25
Carlsbad	2008-2009	\$3,254.00	\$0.00	\$0.00	\$3,254.00	10	\$325.40	
Carlsbad	2009-2010	\$3,254.00	\$0.00	\$0.00	\$3,254.00	10	\$325.40	
Oceanside	2007-2008	\$67,580.00	\$0.00	\$0.00	\$67,580.00	3500	\$19.31	Costs and 2007-2008 number cleaned: Vol. 1, page 133 2008-2009 number cleaned: Vol 5, page 3921 2009-2010 number cleaned: Vol 5, page 4360
Oceanside	2008-2009	\$67,580.00	\$0.00	\$0.00	\$67,580.00	3074	\$21.98	
Oceanside	2009-2010	\$67,580.00	\$0.00	\$0.00	\$67,580.00	3297	\$20.50	
San Marcos	2007-2008	\$2,852.00	\$0.00	\$0.00	\$2,852.00	18	\$158.44	Vol. 1, page 185
San Marcos	2008-2009	\$2,878.00	\$0.00	\$0.00	\$2,878.00	18	\$159.89	
San Marcos	2009-2010	\$2,905.00	\$0.00	\$0.00	\$2,905.00	18	\$161.39	

¹ Data from the City of Escondido for all three years was excluded. A total cleaning cost was provided, but the numbers of catch basins cleaned entered in the 2011 Survey were the default values in the survey (250, 225, and 200), which indicates that actual numbers cleaned were not provided. Numbers of catch basins cleaned could not be identified in the City of Escondido JRMP Annual Reports for these years.

³ Data from the City of San Diego in all three years was excluded because the City noted that its contractor charged a combined rate for cleaning and inspections, so the cost of cleaning alone could not be determined.

³ Adjusted Contract Cost = Total Contract Cleaning Cost – Reporting Cost – Training Cost

Table 7: Supporting Data for Unit Cost for Catch Basin Cleaning: Summary Calculation for RRM (2011 Surveys and Co-Permittee Declarations)

Co-Permittee	Data Referenced	2007-2008	2008-2009	2009-2010	Agency Average (All three years)	Agency Average (2008-2009 and 2009-2010; excludes 2007-2008)
Carlsbad	Contract	\$325.40	\$325.40	\$325.40	\$325.40	\$325.40
Chula Vista	In-House	\$107.42	\$127.23	\$124.42	\$119.69	\$125.82
City of San Diego	In-House	NA	NA	\$275.72	\$275.72	\$275.72
County of San Diego - Flood Control	In-House	\$1,474.41	\$2,459.08	\$1,612.06	\$1,848.52	\$2,035.57
El Cajon	In-House	\$87.97	\$88.48	\$89.39	\$88.61	\$88.94
Escondido	In-House	\$2,729.37	\$2,271.88	\$1,086.84	\$2,029.36	\$1,679.36
Imperial Beach	In-House	\$877.97	\$760.61	\$474.96	\$704.52	\$617.79
La Mesa	In-House	\$77.40	\$71.02	\$95.95	\$81.46	\$83.49
Lemon Grove	In-House	\$2,421.05	\$2,200.32	\$2,266.32	\$2,295.90	\$2,233.32
Oceanside	Contract	\$19.31	\$21.98	\$20.50	\$20.60	\$21.24
Poway	In-House	\$101.31	\$85.51	\$136.28	\$107.70	\$110.89
San Marcos	In-House, Contract (weighted average)	\$164.27	\$102.76	\$89.86	\$118.96	\$96.31
Santee	In-House	\$2,582.00	\$1,696.35	\$1,901.15	\$2,059.83	\$1,798.75
Solana Beach	In-House	\$87.00	\$117.15	\$60.35	\$88.17	\$88.75
Vista	In-House	\$91.62	\$87.18	\$90.12	\$89.64	\$88.65
Median (proposed unit cost)					\$162.32	\$154.68
<i>Average (not used, for reference only)</i>					\$686.45	\$646.59

NA – Unit cost could not be calculated because actual numbers of catch basin cleanings were not available for these agencies in these years.

Table 8: Supporting Data for Unit Cost for Catch Basin Cleaning: In-House Costs (Co-Permittee Declarations Only)

Co-Permittee	Catch Basin Cleaning Cost ¹			Number of Catch Basins Cleaned			Location of Data in Documentation
	2007-2008	2008-2009	2009-2010	2007-2008	2008-2009	2009-2010	
Chula Vista	\$412,747	\$674,09	\$519,917	2,324	3,830	3,899	Soriano Declaration, par. 19 and 20
El Cajon	\$42,225	\$43,002	\$43,803	480	486	490	Davies Declaration, par. 14 and 15
Escondido	\$379,382	\$390,764	\$408,650	139	172	376	Rivera Declaration, par. 24 and 25
Solana Beach	\$1,479	\$1,523	\$1,569	17	13	26	King Declaration, par. 10 and 11
Vista	\$132,937	\$136,792	\$140,763	1,451	1,569	1,562	Conley Declaration, par. 15 and 16

¹ Catch basin cleaning unit costs exclude costs of reporting and training.

Table 9: Supporting Data for Unit Cost for Catch Basin Cleaning: Summary Calculation for RRM (Co-Permittee Declarations)

Co-Permittee	2007-2008	2008-2009	2009-2010	Agency Average (All three years)	Agency Average (2008-2009 and 2009-2010; excludes 2007-2008)
Chula Vista	\$177.60	\$176.00	\$133.35	\$162.32	\$154.68
El Cajon	\$87.97	\$88.48	\$89.39	\$88.61	\$88.94
Escondido	\$2,729.37	\$2,271.88	\$1,086.84	\$2,029.36	\$1,679.36
Solana Beach	\$87.00	\$117.15	\$60.35	\$88.17	\$88.75
Vista	\$91.62	\$87.18	\$90.12	\$89.64	\$88.65
Median				\$89.64	\$88.94

Table 10: Supporting Data for Unit Cost for Linear MS4 Cleaning

[illegible]

¹ Catch basin cleaning unit costs in this table include reporting and training costs, which are excluded from the catch basin cleaning RRM unit cost calculations. All catch basin cleaning costs are included in this table so that the estimated linear MS4 cleaning costs do not include any costs associated with catch basin cleaning.

² Total catch basin inspection costs, including reporting costs listed elsewhere in this document as an unfunded mandate and other catch basin inspection costs that are not claimed as an unfunded mandate.

³ [Estimated Linear MS4 Cleaning Costs] = [Column A] – [Column B] - [Column C]

⁴ [Cost per Linear Foot Cleaned in FY07/08] = [Column D] / ([Column E] + [Column F])

Table 11: Supporting Data for Regional Residential Education Program Development and Implementation Costs

Fiscal Year	ERS Workgroup Task¹	Reported Expenditures	Data Location	Fiscal Year Total RRM
FY08-09	Subtask 3.A. Materials Development and Distribution	\$1,110.70	Vol 13 - p 10,985 ²	\$210,633.39
	Subtask 3.B. Partnership Development	\$325.99		
	Subtask 3.C. Regional Brand	\$14,979.66		
	Subtask 3.D. Market Research and Assessment Tools	\$62,943.12		
	Subtask 3.E. Regional Website	\$4,976.40		
	Subtask 3.G. Mass Media and Public Relations	\$121,940.88		
	Subtask 3.H. Regional Events	\$4,356.64		
FY09-10	Market Research and Assessment	\$32,372.75	Vol 13 – pp 11,020 to 11,208 ³	\$277,607.28
	Mass Media	\$146,568.82		
	Materials Development and Distribution	\$69,667.51		
	Partnership Development	\$14,308.15		
	Regional Brand	\$11,270.21		
	Regional Events	\$1,794.51		
	Regional Website	\$1,039.86		
	Underserved	\$213.95		
FY10-11	Sub-task 3.A. Materials Development and Distribution	\$25,443.00	Vol 13 – pp 11,941 to 11,942 ⁴	\$153,551.00
	Subtask 3.B. Partnership Development	\$565.00		
	Subtask 3.C. Market Research and Assessment Tools	\$79,378.00		
	Subtask 3.D. Regional Website	\$2,220.00		
	Subtask 3.E. Underserved Target Audience	\$871.00		
	Subtask 3.F. Mass Media Campaign	\$43,674.00		

Fiscal Year	ERS Workgroup Task ¹	Reported Expenditures	Data Location	Fiscal Year Total RRM
	Subtask 3.G. Regional Events	\$1,354.00		
	Subtask 3.H. Regional Logo	\$46.00		
FY11-12	3B1 Materials Development and Distribution	\$57,298.00	Vol 13 - p 12,305 ⁵	\$140,320.00
	3B2 Partnership Development	\$0.00		
	3B3 Underserved Target Audience	\$0.00		
	3B4 Regional Events	\$6,591.00		
	3C Market Research and Assessment Tools	\$12,469.00		
	3D Website	\$866.00		
	3E Mass Media Campaign	\$63,096.00		
FY12-13	Materials Development and Distribution	\$45,968.69	Vol 13 pp 12,372 to 12,414 ⁶	\$132,716.53
	Regional Events	\$8,930.24		
	Market Research and Assessment Tools	\$15,762.60		
	Regional Website	\$630.00		
	Mass Media	\$61,425.00		
Total:				\$914,828.20

Table Notes

1 – Only tasks related to the regional branding and website, market research and assessment, and mass media and public relations.

2 – The FY08-09 workgroup summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to workgroup is available at Vol 13 pp 10986-10991.

3 – The FY09-10 ERS workgroup documentation did not include a workgroup summary of annual expenditures. Values were summarized by reviewing individual expenditures certification sheets submitted by Co-Permittees to the regional workgroup. Supporting receipts for non-hourly costs can also be found at these page ranges. Certification sheets labeled as “Co-Permittee summary” were excluded from calculations to prevent double counting.

4 – This value is from the summary table, and additional supporting documentation (receipts and certification) submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pages 11,808 to 11,933.

5 – Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pages 12,242 to 12,300.

6 – The FY12-13 ERS workgroup documentation did not include a workgroup summary of annual expenditures. Values were summarized by reviewing individual expenditures certification

sheets submitted by Co-Permittees to the regional workgroup. Supporting receipts for non-hourly costs can also be found at these page ranges.

Table 12: Supporting Data for Regional Urban Runoff Management Program Costs

Fiscal Year	Regional Workgroup	Task Name	Reported Cost	Location of Data	FY Cost Share
FY08-09	ERS	Subtask 2.D. FY2007-08 Regional URMP Annual Report	\$464.40	Vol 13 p 10985 ¹	\$2,928.91
	FRA	Subtask 2.C. FY 2007-08 Regional URMP Annual Report Completion.	\$2,012.92	Vol 13 p 11011 ²	
		Subtask 2.D. Regional URMP Annual Report Input.	\$270.97		
	MON	Subtask 2.C. FY 2007-08 Regional URMP Annual Report Input.	\$45.78	Vol 13 p 10951 ³	
	WURMP	Subtask 2.A. FY 2007-08 Regional URMP Annual Report Input.	\$134.84	Vol 13 p 10982 ⁴	
FY09-10 ⁵	ERS	Subtask 2.D. Regional URMP Annual Report Input	\$494.11	Vol 13 pp 11103, 11106, 11113,11127-11128	\$5230.98
	FRA	Subtask 2.C. 2008-09 Regional URMP Annual Report Input and Completion	\$3,428.73	Vol 13 pp 11598-11599	
	ICS	Subtask 2.C. FY 2008-09 Regional URMP Annual Report Input	\$759.20	Vol 13 p 11238 and 11228	
	LD	Subtask 2.D. FY 08-09 RURMP Annual Report Input	\$228.54	Vol 13 p 11265	
	MON	Subtask 2.C. FY2008-09 Regional URMP Report Input	\$176.00	Vol 13 p 11610 - 11611	
	WURMP	Subtask 2.A. Regional URMP Annual Report Input	\$144.40	Vol 13 p 11645	
FY10-11	ERS	Subtask 2.C. FY 2009-10 Regional URMP Annual Report Input	\$897.00	Vol 13 p 11940 ⁶	\$1,926.50
	FRA	Regional URMP Annual Report Input and Completion	\$295.00	Vol 13 p 11938 ⁷	
	ICS	Regional URMP Annual Report Input	\$172.50	Vol 13 p 11958 ⁸	
	LD	Subtask 2.C. FY 2009-10 Regional URMP Annual Report Input	\$381.00	Vol 13 p 11955 ⁹	

	WURMP	Subtask 2.A FY 2009-10 Regional URMP Annual Report Input	\$181.00	Vol 13 p 11964 ¹⁰	
Total:					\$10,086.39

Notes:

ERS = Education and Residential Sources Workgroup; FRA = Fiscal, Reporting, and Assessment Workgroup; ICS = Industrial and Commercial Sources Workgroup; LD = Land Development Workgroup; MON = Monitoring Workgroup and Sub-workgroups; WURMP = Regional WURMP Workgroup.

1 - The FY08-09 ERS workgroup expenditure summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to the workgroup is at Vol 13 pp 10986-10991.

2 – The FY08-09 FRA workgroup expenditure summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to the workgroup is at Vol 13 pp 11012-11013.

3 – The FY08-09 MON workgroup expenditure summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to the workgroup is at Vol 13 pp 10942-10943 and 10952-10957.

4 – The FY08-09 WURMP workgroup expenditure summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to the workgroup is at Vol 13 pp 10983-10984.

5 – The FY09-10 workgroup documentation did not include workgroup summaries of annual expenditures. Values were summarized by reviewing individual expenditures certification sheets submitted by Co-Permittees to each regional workgroup.

6 - This value is from the summary table. Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pages 11,808 to 11,933.

7 -(FY10-11 FRA reference) - This value is from the summary table. Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pp 11,977 to 12,013.

8 - (FY10-11 ICS reference) - This value is from the summary table. Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pp 12,014 to 12,042 and pp 12,138 to 12,142.

9 - (FY10-11 LD reference) - This value is from the summary table. Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pp 12,043 to 12,100.

10 - (FY10-11 WURMP reference) - This value is from the summary table. Additional supporting documentation submitted by Co-Permittees to the regional workgroup (expenditure certification forms and associated receipts) can be found at Vol 13 pp 12,145 to 12,241.

Table 13: Supporting Data for Jurisdictional Education Program Costs: Total and Educational Costs

Co-Permittee	Fiscal Year	Total Stormwater Costs	Jurisdictional Education Costs	Education % of Total Cost	Data Location
City of San Diego	FY05-06	\$33,562,843	\$1,300,000	3.87%	May 2025 Barret Decl, Exhibit C, p 94
City of San Diego	FY06-07	\$44,602,619	\$2,996,927	6.72%	Vol 6 pp 2,599 - 2,560
City of San Diego	FY08-09	\$47,821,511	\$5,610,999	11.73%	Vol 7 pp 655 - 656
City of San Diego	FY09-10	\$35,582,609	\$3,216,076	9.04%	Vol 7 p 5,173
City of San Diego	FY10-11	\$52,342,560	\$2,789,130	5.33%	Vol 7 p 6,135
City of San Diego	FY11-12	\$46,086,836	\$1,753,316	3.80%	Vol 7 p 8,032
Encinitas	FY05-06	\$1,204,448	\$5,492	0.46%	May 2025 Barret Decl, Exhibit A, p 12-2
Encinitas	FY06-07	\$1,192,174	\$260	0.02%	Vol 3 p 112 & 114
Encinitas	FY08-09	\$1,729,962	\$455	0.03%	Vol 3 p 1,401
Encinitas	FY09-10	\$2,297,964	\$28,167	1.23%	Vol 3 p 2,181
Encinitas	FY10-11	\$2,897,352	\$26,662	0.92%	Vol 3 p 2,753
Encinitas	FY11-12	\$2,847,310	\$26,790	0.94%	Vol 3 p 3,113
La Mesa	FY05-06	\$599,042	\$7,430	1.24%	May 2025 Barret Decl, Exhibit B, p 165
La Mesa	FY06-07	\$575,477	\$9,433 ¹	1.64%	Vol 4 pp 159-160
La Mesa	FY08-09	\$679,764	\$13,959 ²	2.05%	Vol 4 pp 1613-1614
La Mesa ³	FY09-10	\$294,845	\$4,692	1.59%	Vol 4 p 2,311
La Mesa ³	FY10-11	\$371,931	\$7,336	1.97%	Vol 4 p 3,129
La Mesa ³	FY11-12	\$420,120	\$7,215	1.72%	Vol 4 p 3,641
Solana Beach	FY05-06	\$256,900	\$1,000	0.39%	May 2025 Barret Decl, Exhibit D, p 162
Solana Beach	FY06-07	\$279,600	\$1,000	0.36%	Vol 10 pp 1,816-1817

Co-Permittee	Fiscal Year	Total Stormwater Costs	Jurisdictional Education Costs	Education % of Total Cost	Data Location
Solana Beach	FY08-09	\$374,250	\$6,000	1.60%	Vol 10 pp 2,522-2,523
Solana Beach	FY09-10	\$483,200	\$47,000	9.73%	Vol 10 p 2,818
Solana Beach	FY10-11	\$397,740	\$34,950	8.79%	Vol 10 p 3,263
Solana Beach	FY11-12	\$377,840	\$21,520	5.70%	Vol 10 p 3,514
Vista	FY05-06	\$1,982,000	\$51,647	2.61%	May 2025 Barret Decl, Exhibit E, Section 12, p 1
Vista	FY06-07	\$1,731,667	\$34,381	1.99%	Vol 11 p 102
Vista	FY08-09	\$2,703,428	\$25,745	0.95%	Vol 11 p 1,338
Vista	FY09-10	\$3,000,583	\$22,979	0.77%	Vol 11 p 2,321
Vista	FY10-11	\$2,665,813	\$30,482	1.14%	Vol 11 p 2,983
Vista	FY11-12	\$2,728,143	\$61,113	2.24%	Vol 11 p 3,806

Notes:

1 - La Mesa FY06-07 Jurisdictional Education Costs were calculated by summarizing reported expenditures from Engineering Division “Education” costs (\$8,071) and Consultant services for “Public Education/Outreach Program” costs (\$1,362).

2 – La Mesa FY08-09 Jurisdictional Education Costs were calculated by summarizing reported expenditures from Engineering Division for “Education” costs (\$10,675) and Consultant Services for “Public Education/Outreach Program” costs (\$3,284).

3 – Values for La Mesa FY09-10, FY10-11, and FY11-12 have been rounded to the nearest dollar for presentation in this table. The Education % of Total Cost values were calculated with the precise values reported in the City’s JURMP Annual Report for the year.

Table 14: Supporting Data for Jurisdictional Education Program Costs: RRM Calculation¹

Co-Permittee	2001 Permit			2007 Permit				
	2005-2006 [A]	2006-2007 [B]	Average	2008-2009 [C]	2009-2010 [D]	2010-2011 [E]	2011-2012 [F]	Average
City of San Diego	3.87%	6.72%	5.30%	11.73%	9.04%	5.33%	3.80%	7.48%
Encinitas	0.46%	0.02%	0.24%	0.03%	1.23%	0.92%	0.94%	0.78%
La Mesa	1.24%	1.64%	1.44%	2.05%	1.59%	1.97%	1.72%	1.83%
Solana Beach	0.39%	0.36%	0.37%	2.10%	9.73%	8.79%	5.70%	6.58%
Vista	2.61%	1.99%	2.30%	0.95%	0.77%	1.14%	2.24%	1.28%
Median			1.44%					1.83%
Average			1.85%					3.56%
Proposed RRM, Education % of Total Stormwater Budget: 0.39% (2007 Median – 2001 Median)								

¹ Percentages for individual agencies and years in this table are taken from the preceding table. Averages and medians were calculated from those numbers.

Table 15: Supporting Data for Fiscal, Reporting, and Assessment Workgroup Costs

Fiscal Year	FRA Workgroup Task¹	Reported Expenditures	Data Location	Fiscal Year Total RRM value
FY08-09	Subtask 2.E. Fiscal Reporting Standards	\$20,518.00	Vol 13 – p 11,011 ²	\$21,369.62
	Subtask 2.F. Regional Standards for Reporting and Assessment	\$851.62		
FY09-10	Subtask 2.F. Regional Standards for Reporting and Assessment	\$31,803.75	Vol 13 p 11,597 to 11,600 ³	\$31,803.75
Total:		\$53,173.37		

Notes:

1 – Tasks related to Longterm effectiveness assessment, workgroup meeting support, and RURMP report preparation are excluded from this RRM.

2 – The FY08-09 FRA workgroup expenditure summary provides total costs summarized per subtask. Additional supporting documentation of Co-Permittee costs submitted to the workgroup is at Vol 13 pp 11012-11013.

3 – The submitted expenditures documentation for FY09-10 did not include an FRA workgroup summary. Values were summarized by reviewing individual expenditures certification sheets submitted by Co-Permittees to the regional workgroup.

Table 16: Supporting Data for Long Term Effectiveness Assessment (LTEA) Costs

Fiscal Year	LTEA Costs	Location of Data
FY 2010/2011 (FRA Workgroup Costs)	\$132,212 ¹	Vol. 13, p 11,665
FY 2010/2011 (Monitoring Workgroup Costs)	\$212,327	Vol. 13, p 11,719
Total Contractor Costs	\$344,539	

Notes:

1 – This value has been rounded down to the nearest dollar to reflect rounding displayed at Vol. 13, p 11,665. The previous submission for this RRM (December 2024) cited a value of “\$132,212.21” which was identified from the original spreadsheet file received from the Co-Permittees and reviewed to develop the RRM. When submitted for supporting documentation the value was only displayed to the nearest dollar.

Table 17: Supporting Data for Jurisdictional Watershed Activities Costs Based on Watershed Annual Reports

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
Carlsbad	FY08-09	Buena Vista Creek Cleanup and Restoration	Vista	\$84,000.00	Vol 13 p 330
	FY11-12	Residential Smart Landscape Evaluation Program	Oceanside	\$1,606.50	Vol 13 p 1047
	FY11-12	Live Turf Replacement Incentive Program	Oceanside	\$68,288.50	Vol 13 p 1028
Mission Bay	FY09-10	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2736
	FY09-10	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2739
	FY09-10	Municipal Rain Barrel Installation and Downspout Disconnect Project	City of San Diego	\$8,266.00	Vol 13 pp 2756-2757
	FY10-11	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2875
	FY10-11	Coastal Cleanup Day sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2877
	FY11-12	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 3000
	FY11-12	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 3002
	FY11-12	Qualcomm Stadium Drop-off Community Cleanup and Recycling Event Sponsorship	City of San Diego	\$367.00	Vol 13 p 3030
Los Peñasquitos	FY08-09	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,000.00	Vol 13 p 1773
	FY08-09	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 1783
	FY08-09	I Love a Clean San Diego Trash Cleanup Sponsorship	Poway	\$500.00	Vol 13 p 1783

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
	FY08-09	Aubrey Street Continuous Deflective Separation Device	Poway	\$515.01	Vol 13 p 1793
	FY09-10	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 1896
	FY09-10	ILACSD Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 1927
	FY09-10	Los Penasquitos Watershed municipal Rain Barrel Installation and Downspout Disconnect Project	City of San Diego	\$15,231.00	Vol 13 pp 1938-1939
	FY09-10	Aubrey Street Continuous Deflective Separation Device	Poway	\$190.00	Vol 13 p 1941
	FY10-11	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2102
	FY10-11	ILACSD Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 2106
	FY10-11	Aubrey Street Continuous Deflective Separation Device	City of San Diego	\$964.11	Vol 13 p 2112
	FY10-11	Gate Drive Detention Basin Modification	Poway	\$200.00	Vol 13 p 2114
	FY11-12	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 2224
	FY11-12	ILACSD Trash Cleanup Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 2228
	FY11-12	Aubrey Street Continuous Deflective Separation Device	Poway	\$920.44	Vol 13 p 2234
	FY11-12	Gate Drive Detention Basin Modification	Poway	\$450.00	Vol 13 p 2236
San Diego Bay	FY09-10	Municipal Rain Barrel Installation and Downspout Disconnects	City of San Diego	\$39,712.00	Vol 13 p 5382-5383

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
San Dieguito	FY08-09	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,000.00	Vol 13 p 7952
	FY08-09	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 7966
	FY09-10	San Dieguito Watershed Municipal Rain Barrel Installation and Downspout Disconnects	City of San Diego	\$27,086.00	Vol 13 pp 8077-8078
	FY09-10	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p8080
	FY09-10	ILACSD Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 8114
	FY10-11	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 8178
	FY10-11	I Love a Clean San Diego Trash Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 8188
	FY11-12	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 8399
	FY11-12	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 8411
San Diego River	FY08-09	Coastal Cleanup Day Alvarado Channel	La Mesa	\$1,000.00	Vol 13 p 6553
	FY08-09	Creek to Bay Cleanup	La Mesa	\$1,000.00	Vol 13 p 6555
	FY08-09	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 6557
	FY08-09	San Diego River Park Foundation Partnership	City of San Diego	\$15,000.00	Vol 13 p 6564
	FY08-09	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,000.00	Vol 13 p 6580

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
	FY09-10	Coastal Cleanup Day Alvarado Channel	La Mesa	\$1,000.00	Vol 13 p 6745
	FY09-10	Creek to Bay Cleanup	La Mesa	\$1,000.00	Vol 13 p6748
	FY09-10	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 6750
	FY09-10	San Diego River Park Foundation Partnership	City of San Diego	\$33,000.00	Vol 13 p 6759
	FY09-10	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 6774
	FY09-10	San Diego River Watershed Municipal Rain Barrel Installation and Downspout Disconnect Project	City of San Diego	\$7,559.00	Vol 13 pp 6782-6783
	FY10-11	Creek to Bay Cleanup	La Mesa	\$1,000.00	Vol 13 p 7085
	FY10-11	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 7087
	FY10-11	San Diego River Park Foundation Partnership	City of San Diego	\$33,000.00	Vol 13 p 7098
	FY10-11	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 7110
	FY11-12	Creek to Bay Cleanup	La Mesa	\$1,000.00	Vol 13 p 7223
	FY11-12	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$2,500.00	Vol1 13 p 7225
	FY11-12	San Diego River Park Foundation Partnership	City of San Diego	\$10,000.00	Vol 13 p 7240
	FY11-12	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,500.00	Vol 13 p7248

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
	FY11-12	Qualcomm Stadium Drop-off Community Cleanup and Recycling Event Sponsorship	City of San Diego	\$367.00	Vol 13 p 7301
San Luis Rey	FY11-12	Residential Smart Landscape Evaluation Program	Oceanside	\$2,369.50	Vol 13 p 9432
	FY11-12	Live Turf replacement incentive program	Oceanside	\$16,065.90	Vol 13 p 9438
Tijuana	FY08-09	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 10192
	FY08-09	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,000.00	Vol 13 p 10194
	FY09-10	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 10332
	FY09-10	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 10336
	FY09-10	Municipal Rain Barrel Installation and Downspout Disconnect Project	City of San Diego	\$47,112.00	Vol 13 pp 10345-10346
	FY10-11	I Love a Clean San Diego Trash Cleanup Sponsorship	city of San Diego	\$5,000.00	Vol 13 p 10410
	FY10-11	Coastal Cleanup Day Sponsorship	City of San Diego	\$5,000.00	Vol 13 p 10412
	FY10-11	Tijuana River Action Month	County	\$2,500.00	Vol 13 p 10449
	FY11-12	I Love a Clean San Diego Trash Cleanup Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 10588
	FY11-12	Coastal Cleanup Day Sponsorship	City of San Diego	\$2,500.00	Vol 13 p 10590
	FY11-12	Invasive Species Removal Project in the Tijuana River Park	County	\$5,000.00	Vol 13 p 10612

WMA	Fiscal Year	Activity Name	Responsible Co-Permittee	Reported Activity Cost	Data Location
	FY11-12	Qualcomm Stadium Drop-off Community Cleanup and Recycling Event Sponsorship	City of San Diego	\$367.00	Vol 13 p 10754
Median (proposed unit cost):				\$5,000.00	
Average (not used, for reference only)				\$8,163.90	

Table 18: Supporting Data for Regional Workgroup Meeting Support

Fiscal Year	Reported Meeting Support Costs for ERS Workgroup	Data Location
FY08-09	\$232.20	Vol 13 – p 10,985
FY09-10	\$256.70	Vol 13 – p 11,160
FY10-11	\$231.00	Vol 13 – p 11,940
FY11-12	\$2,849.00	Vol 13 – p 12,305
FY12-13	\$2,317.12	Vol 13 – p 12,374
Total:	\$5,886.02	

Table 19: Supporting Data for Regional Watershed Activities - WURMP

Co-Permittee	WURMP Costs	Data Location
FY 2008/2009	\$2,737.91	Vol. 13, p 10982
FY 2009/2010	\$3,287.23	Vol. 13, pp. 11630-11650

Table 20: Supporting Data for Jurisdictional Program Effectiveness Assessment

Co-Permittee	Fiscal Year	Total Stormwater Program Cost [A]	Program Effectiveness Assessment Cost¹ [B]	Program Effectiveness Percent of Total Stormwater Cost [B]/[A]	Data Location
City of San Diego	FY07-08	\$49,949,903.00	\$8,409,561.00	16.84%	A – Vol. 6, p 4668 B – Vol. 6, p 4668
City of San Diego	FY08-09	\$47,821,511.00	\$4,816,801.00	10.07%	A – Vol. 7, p 654 B – Vol. 7, p 654
La Mesa	FY07-08	\$745,867.00	\$2,080.00	0.28%	A – Vol. 4, p 655 B – Vol. 14, p 10 ¹
La Mesa	FY08-09	\$679,764.00	\$2,230.00	0.33%	A – Vol. 4, p 1614 B – Vol. 14, p 17
La Mesa	FY09-10	\$294,844.64	\$1,760.00	0.60%	A – Vol. 4, p 2311 B – Vol. 14, p 24
La Mesa	FY10-11	\$371,931.27	\$1,760.00	0.47%	A – Vol. 4, p 3129 B – Vol. 14, p 31
La Mesa	FY11-12	\$420,120.47	\$1,760.00	0.42%	A – Vol. 4, p 3641 B – Vol. 14, p 38
National City	FY08-09	\$1,317,000.00	\$6,865	0.52%	A – Vol. 5, p 1705 B – Vol. 14, pp 66-67 ³
Poway	FY10-11	\$1,841,210.00	\$2,390.00	0.13%	A – Vol. 6, p 1884 B – Vol. 14, p 145
Poway	FY11-12	\$1,854,696.00	\$2,400.00	0.13%	A – Vol. 6, p 2237 B – Vol. 14, p 146
Santee	FY07-08	\$718,634.00	\$5,600.00	0.78%	A – Vol. 9, p 561 B – Vol. 14, p 166
Santee	FY08-09	\$805,869.00	\$2,540.00	0.32%	A – Vol. 9, p 1486 B – Vol. 14, p 173
Santee	FY10-11	\$1,061,373.00	\$2,458.00	0.23%	A – Vol. 10, p 1069 B – Vol. 14, p 181

Co-Permittee	Fiscal Year	Total Stormwater Program Cost [A]	Program Effectiveness Assessment Cost ¹ [B]	Program Effectiveness Percent of Total Stormwater Cost [B]/[A]	Data Location
Santee	FY11-12	\$882,749.00	\$2,618.00	0.30%	A – Vol. 10, p 1382 B – Vol. 14, p 185
Median				0.37%	
<i>Average (not used, for reference only)</i>				2.24%	

¹ For all effectiveness assessment costs taken from D-Max proposals, the cost is based on the year when the work was done, not the year reported on. For example, the 2006/2007 JURMP annual report is prepared in 2007/2008, so the 2007/2008 program effectiveness assessment cost is the cost to prepare the effectiveness assessment portion of the 2006/2007 JURMP annual report.

² The footer on this page inaccurately states it is from the 2008/2009 JRMP Annual Report, but text on this page and the footers on surrounding pages confirm that this page is part of the 2009/2010 JRMP Annual Report and provides stormwater program costs for 2009/2010.

³ Includes the cost to prepare the program effectiveness assessment sections of the JURMP annual report and the updated JUMRP document.

⁴ Includes the cost to prepare the program effectiveness assessment sections of the updated JUMRP document. Note that the cost of the project was based on the “rounded totals” column per the total shown on Vol. 14, p 165.

DECLARATION OF MARISA SORIANO

I, Marisa Soriano, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. Between September 2007 to the present, I was employed with the City of Chula Vista ("City") as the Environmental Manager. My position in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the conveyance system inspections, conveyance system cleanings, street sweeping inspections, and street sweepings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning and inspection costs relating to the 2007 Permit. I was involved and responsible for overseeing, and accounting for in-house personnel and non-personnel costs associated with inspecting and cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal

knowledge of in-house personnel worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

4. As a part of my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this individual. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each worker costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

5. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

6. Two in-house Equipment Operators were employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, each Equipment Operator had an annual salary of \$59,508. With benefits and overhead, each in-house Equipment Operator cost the City \$128,002 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2009-10, the equivalent of one Equipment Operator dedicated half a percent (0.5%) of their time to cleaning the City's conveyance system.

7. Three in-house level II Maintenance Workers were employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, each level II Maintenance Workers had an annual salary of \$45,049. With benefits and overhead, each Maintenance Worker II cost the City \$96,899 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2007-08, the equivalent of one Maintenance Worker II dedicated twenty point four percent (20.4%) of their time to cleaning the City's conveyance system. During FY 2008-09, the equivalent of one Maintenance Worker II dedicated thirty nine point three percent (39.3%) of their time to cleaning the City's conveyance system. During FY 2009-10, the equivalent of one Maintenance Worker II dedicated forty one percent (41%) of their

time to cleaning the City's conveyance system.

8. Three in-house Senior Maintenance Workers were employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, each Senior Maintenance Worker had an annual salary of \$81,944. With benefit and overhead, each Senior Maintenance Worker cost the City \$176,261 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2007-08, the equivalent of one Senior Maintenance Worker dedicated thirty-three point thirty-three percent (33.33%) of their time to cleaning the City's conveyance system. During FY 2008-09, the equivalent of one Senior Maintenance Worker dedicated sixty-five point three percent (65.3%) of their time to cleaning the City's conveyance system. During FY 2009-10, the equivalent of one Senior Maintenance Worker dedicated forty point thirty-three percent (40.33%) of their time to cleaning the City's conveyance system.

9. An in-house Maintenance Worker I was employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, the Maintenance Worker I had an annual salary of \$36,895. With benefits and overhead, the in-house Maintenance Worker I cost the City \$79,362 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2007-08, the Senior Maintenance Worker dedicated twenty point two percent (20.2%) of their time to cleaning the City's conveyance system. During FY 2008-09, the in-house Senior Maintenance Worker dedicated forty one percent (41%) of his time to cleaning the City's conveyance system.

10. An in-house Public Works Specialist was employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, the Public Works Specialist had an annual salary of \$57,795. With benefits and overhead, the in-house Public Works Specialist cost the City \$124,317 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the in-house Public Works Specialist dedicated twenty percent (20%) of their time to reporting on conveyance system inspections and seventy percent (70%) of their time reporting on conveyance system cleaning.

11. An in-house Public Works Supervisor was employed by the City from FY 2007-

08 to FY 2009-10. In FY 2007-08, the Public Works Supervisor had an annual salary of \$77,040. With benefits and overhead, the in-house Public Works Supervisor cost the City \$165,714 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the Public Works Supervisor dedicated seventy percent (70%) of their time to supervision and management on conveyance system cleaning.

12. In each year from FY 2007-08 through FY 2009-10, the City incurred \$16,097 in costs relating to contractor time for reporting on street sweeping.

13. In FY 2007-08, the City incurred \$251,557 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2008-09, the City incurred \$506,841 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2009-10, the City incurred \$354,049 in personnel costs relating to staff time for conveyance system cleaning operations.

14. In FY 2007-08, the City incurred \$24,863 in personnel costs relating to staff time for reporting on conveyance system inspections. In FY 2008-09, the City incurred \$25,609 in personnel costs relating to staff time for reporting on conveyance system inspections. In FY 2009-10, the City incurred \$26,378 in personnel costs relating to staff time for reporting on conveyance system inspections.

15. In FY 2007-08, the City incurred \$87,022 in personnel costs relating to staff time for reporting on conveyance system cleaning operations. In FY 2008-09, the City incurred \$89,633 in personnel costs relating to staff time for reporting on conveyance system cleaning operations. In FY 2009-10, the City incurred \$92,322 in personnel costs relating to staff time for reporting on conveyance system cleaning operations.

16. In FY 2007-08, the City incurred \$116,000 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In FY 2008-09, the City incurred \$119,480 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In

FY 2009-10, the City incurred \$123,064 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations.

17. In FY 2007-08, the City incurred \$15,203 in fuel costs relating each to conveyance system cleanings. In FY 2008-09, the City incurred \$15,899 in fuel costs relating each to conveyance system cleanings. In FY 2009-10, the City incurred \$15,244 in fuel costs relating each to conveyance system cleanings.

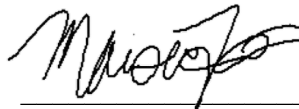
18. In FY 2007-08, the City incurred \$29,967 in conveyance system cleaning costs relating to equipment maintenance. In FY 2008-09, the City incurred \$31,880 in conveyance system cleaning costs relating to equipment maintenance. In FY 2009-10, the City incurred \$27,561 in conveyance system cleaning costs relating to equipment maintenance.

19. In FY 2007-08, the City cleaned 2324 catch basins. In FY 2008-09, the City cleaned 3830 catch basins. In FY 2009-10, the City cleaned 3899 catch basins.

20. In FY 2007-08, the City incurred a total of \$412,747 for conveyance system cleaning which includes conveyance system cleaning operations, employee supervision and management, equipment maintenance and fuel ("Conveyance System Cleaning"); Conveyance System Cleaning does not include reporting . In FY 2008-09, the City incurred a total of \$674,099 for Conveyance System Cleaning. In FY 2009-10, the City incurred a total of \$519,917for Conveyance System Cleaning.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 13th day of May, 2025, at Chula Vista, California.



MARISA SORIANO

DECLARATION OF KIM GODBY

I, Kim Godby, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

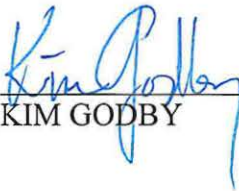
2. Between June 2005 and July 2024, I was employed with the City of Coronado ("City") as the Services Supervisor. My position in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the street sweepings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning costs relating to the 2007 Permit. I was involved and responsible for managing, overseeing, and accounting for in-house personnel costs associated with cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal knowledge of in-house personnel worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

9. In FY 2007-08, the City incurred a total of \$1,018 for personnel costs relating to staff time for reporting on street sweeping costs. In FY 2008-09, the City incurred a total of \$1,049 for reporting on street sweeping cost. In FY 2009-10, the City incurred a total of \$1,080 for reporting on street sweeping cost.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 7th day of May, 2025, at Coronado, California.


KIM GODBY

DECLARATION OF DENNIS DAVIES

I, Dennis Davies, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. Between March, 1999 and December, 2022, I was employed with the City of El Cajon ("City") as the Principal Civil Engineer and Deputy Director of Public Works. My position in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the conveyance system inspections, conveyance system cleanings, street sweeping inspections, and street sweepings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning and inspection costs relating to the 2007 Permit. I was involved and responsible for managing, overseeing, and accounting for in-house personnel and non-personnel costs associated with inspecting and cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal

knowledge of in-house personnel worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

4. As a part of my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this individual. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each worker costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

5. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

6. John Wilson was employed as an in-house Equipment Operator from fiscal year ("FY") of 2007-08. In FY 2007-08, John Wilson had an annual salary of \$44,460. With benefits and overhead, John Wilson cost the City \$72,290 in FY 2007-08. During FY 2007-08, John Wilson dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

7. Gary Taylor was employed as an in-house Maintenance Worker II from FY 2007-08. In FY 2007-08, Gary Taylor had an annual salary of \$35,496. With benefits and overhead, Gary Taylor cost the City \$58,625 in FY 2007-08. During FY 2007-08, Gary Taylor dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

8. Bill Copper was employed as an in-house Equipment Operator from FY 2007-08 to FY 2008-09. In FY 2007-08, Bill Copper had an annual salary of \$44,460. With benefits and overhead, Bill Copper cost the City \$72,290 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09. During FY 2008-09, Bill Copper dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

9. Darryl Mack was employed as an in-house Maintenance Worker II from FY 2007-08 to FY 2008-09. In FY 2007-08, Darryl Mack had an annual salary of \$35,496. With benefits and overhead, Darryl Mack cost the City \$58,625 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09. During FY 2008-09, Darryl Mack dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

10. Randy Rizzetto was employed as an in-house Equipment Operator from FY 2007-08 to FY 2009-10. In FY 2007-08, Randy Rizzetto had an annual salary of \$44,460. With benefits and overhead, Randy Rizzetto cost the City \$72,290 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2009-10, Randy Rizzetto dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

11. Max Martinez was employed as an in-house Maintenance Worker II from FY 2007-08 to FY 2009-10. In FY 2007-08, Max Martinez had an annual salary of \$35,496. With benefits and overhead, Max Martinez cost the City \$58,625 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2009-10, Max Martinez dedicated nineteen point eight percent (19.8%) of his time to cleaning the City's conveyance system.

12. In FY 2007-08, the City incurred \$25,921 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2008-09, the City incurred \$26,699 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2009-10, the City incurred \$27,500 in personnel costs relating to staff time for conveyance system cleaning operations.

13. In each year from FY 2007-08 through FY 2009-10, the City incurred \$16,304 in conveyance system cleaning costs relating to equipment maintenance.

14. In FY 2007-08, the City cleaned 480 catch basins. In FY 2008-09, the City cleaned 486 catch basins. In FY 2009-10, the City cleaned 490 catch basins.

15. In FY 2007-08, the City incurred a total of \$42,225 for conveyance system cleaning which includes conveyance system cleaning operations, equipment maintenance and fuel ("Conveyance System Cleaning"); Conveyance System Cleaning does not include reporting and employee and vendor training. In FY 2008-09, the City incurred a total of \$43,002 for Conveyance System Cleaning. In FY 2009-10, the City incurred a total of \$43,803 for Conveyance System Cleaning.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 15th day of MAY, 2025, at CALLA VISTA, California.



DENNIS DAVIES

DECLARATION OF RAFAEL RIVERA

I, Rafael Rivera, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. Between July, 1999 and May, 2025, I was employed with the City of Escondido ("City") as a Public Works Supervisor. My position in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the conveyance system inspections, conveyance system cleanings, street sweeping inspections, and street sweepings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning and inspection costs relating to the 2007 Permit. I was involved and responsible for overseeing in-house personnel and non-personnel costs associated with inspecting and cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal knowledge of in-house personnel

worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

4. As a part of my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this individual. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each worker costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

5. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

6. E. Mucino was employed as an in-house Lead Technician from the fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, E. Mucino had an annual salary of \$52,124. With benefits and overhead, E. Mucino cost the City \$74,537 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, E. Mucino dedicated seventy percent (70%) of their time to cleaning the City's conveyance system, four percent (4%) of their time reporting on conveyance system cleaning, and four percent (4%) of their time reporting on conveyance system inspections.

7. J. Moreno was employed as an in-house Lead Technician from the fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, J. Moreno had an annual salary of \$52,124. With benefits and overhead, J. Moreno cost the City \$74,537 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, J. Moreno dedicated seventy percent (70%) of their time to cleaning the City's conveyance system, four percent (4%) of their time reporting on conveyance system cleaning, and four percent (4%) of their time reporting on conveyance system inspections.

8. J. Quiroz was employed as an in-house Technician II from the fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, J. Quiroz had an annual salary of \$42,827. With benefits and overhead, J. Quiroz cost the City \$61,243 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, J. Quiroz dedicated seventy percent (70%) of their time to cleaning the City's conveyance system and two percent (2%) of their time reporting on conveyance system cleaning.

9. C. Garcia was employed as an in-house Technician II from the fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, C. Garcia had an annual salary of \$42,827. With benefits and overhead, C. Garcia cost the City \$61,243 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, C. Garcia dedicated twenty five percent (25%) of their time to cleaning the City's conveyance system.

10. Two in-house Temporary Employees were employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, each Temporary Employee had an annual salary of \$26,603. With benefits and overhead, each in-house Temporary Employee cost the City \$35,382 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. During FY 2009-10, the each Temporary Employee dedicated twenty five percent (25%) of their time to cleaning the City's conveyance system.

11. D. Young was employed as an in-house Superintendent from FY 2007-08 to FY 2009-10. In FY 2007-08, D. Young had an annual salary of \$79,000. With benefits and overhead, D. Young cost the City \$112,970 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. Each year from FY 2007-08 to FY 2009-10, D. Young dedicated nineteen percent (19%) of their time to supervision and management on conveyance system cleaning.

12. H. Villalobos was employed as an in-house Supervisor from FY 2007-08 to FY 2009-10. In FY 2007-08, H. Villalobos had an annual salary of \$65,104. With benefits and

overhead, H. Villalobos cost the City \$93,099 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. Each year from FY 2007-08 to FY 2009-10, H. Villalobos dedicated fourteen percent (14%) of their time to supervision and management on conveyance system cleaning and four percent (4%) of their time reporting on conveyance system inspections.

13. J. Hinchliff was employed as an in-house Lead Technician from FY 2007-08 to FY 2009-10. In FY 2007-08, J. Hinchliff had an annual salary of \$52,124. With benefits and overhead, J. Hinchliff cost the City \$74,537 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, J. Hinchliff dedicated four percent (4%) of their time reporting on street sweeping costs.

14. Chris Guenther was employed as an in-house Lead Technician from FY 2007-08 to FY 2009-10. In FY 2007-08, Chris Guenther had an annual salary of \$52,124. With benefits and overhead, Chris Guenther cost the City \$74,537 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, Chris Guenther dedicated four percent (4%) of their time reporting on street sweeping costs.

15. In FY 2007-08, the City incurred a total of \$5,963 for personnel costs relating to staff time for reporting on street sweeping costs. In FY 2008-09, the City incurred a total of \$6,142 for reporting on street sweeping cost. In FY 2009-10, the City incurred a total of \$6,326 for reporting on street sweeping cost.

16. In FY 2007-08, the City incurred \$336,752 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2008-09, the City incurred \$346,855 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2009-10, the City incurred \$357,260 in personnel costs relating to staff time for conveyance system cleaning operations.

17. In FY 2007-08, the City incurred \$9,515 in personnel costs relating to staff time

for reporting on conveyance system inspections. In FY 2008-09, the City incurred \$9,801 in personnel costs relating to staff time for reporting on conveyance system inspections. In FY 2009-10, the City incurred \$10,095 in personnel costs relating to staff time for reporting on conveyance system inspections.

18. In FY 2007-08, the City incurred \$7,188 in personnel costs relating to staff time for reporting on conveyance system cleaning operations. In FY 2008-09, the City incurred \$7,403 in personnel costs relating to staff time for reporting on conveyance system cleaning operations. In FY 2009-10, the City incurred \$7,626 in personnel costs relating to staff time for reporting on conveyance system cleaning operations.

19. In FY 2007-08, the City incurred \$34,498 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In FY 2008-09, the City incurred \$35,533 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In FY 2009-10, the City incurred \$36,599 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations.

20. In FY 2007-2008, the City incurred \$3,551 in employee and vendor training costs for each conveyance system cleaning. In FY 2008-2009, the City incurred \$3,658 in employee and vendor training costs for each conveyance system cleaning. In FY 2009-2010, the City incurred \$3,768 in employee and vendor training costs for each conveyance system cleaning.

21. In FY 2007-2008, the City incurred \$7,454 in personnel equipment maintenance costs for each conveyance system cleaning. In FY 2008-2009, the City incurred \$7,677 in personnel equipment maintenance costs for each conveyance system cleaning. In FY 2009-2010, the City incurred \$7,908 in personnel equipment maintenance costs for each conveyance system cleaning.

22. In FY 2007-2008, the City incurred \$678 in personnel contract management costs for each conveyance system cleaning. In FY 2008-2009, the City incurred \$678 in personnel contract management costs for each conveyance system cleaning. In FY 2009-2010, the City

incurred \$678 in personnel contract management costs for each conveyance system cleaning.

23. In FY 2009-10, the City incurred \$6,165 in non-personnel conveyance system cleaning costs relating to equipment maintenance.

24. In FY 2007-08, the City cleaned 139 catch basins. In FY 2008-09, the City cleaned 172 catch basins. In FY 2009-10, the City cleaned 376 catch basins.

25. In FY 2007-08, the City incurred a total of \$379,382 for conveyance system cleaning which includes conveyance system cleaning operations, employee supervision and management, equipment maintenance and fuel ("Conveyance System Cleaning"); Conveyance System Cleaning does not include reporting and employee and vendor training. In FY 2008-09, the City incurred a total of \$390,764 for Conveyance System Cleaning. In FY 2009-10, the City incurred a total of \$408,650 Conveyance System Cleaning.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 7 day of May, 2025, at Escondido, California.


NAME

**DECLARATION OF STEPHEN MANGANIELLO,
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER**

I, Stephen Manganiello, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. Between January, 2012 and May, 2020, I was employed with the City of National ("City") as the City Engineer. In January, 2014 my position was expanded to serve as both the City Engineer and Director of Public Works. My position in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the street sweepings are properly conducted to meet applicable 2007 Permit requirements. Because I became the Director of Public Works/City Engineer part way through the 2007 Permit, I reviewed documents created under the 2007 Permit prior to December 2011 to ensure continued compliance under the 2007 Permit. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning costs relating to the 2007 Permit. I was involved and responsible for managing in-house personnel costs associated with cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports

and I have read and am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal knowledge of in-house personnel worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

4. As a part of my position and the steps I took to prepare for my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this individual. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each worker costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

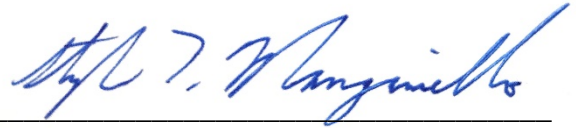
5. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

6. Joe Ibarra was employed as an in-house Senior Operator from FY 2007-08 to FY 2009-10. In FY 2007-08, Joe Ibarra had an annual salary of \$53,140. With benefits and overhead, Joe Ibarra cost the City \$89,275 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. Each year from FY 2007-08 to FY 2009-10, Joe Ibarra dedicated one percent (1%) of his time to reporting on conveyance system inspections.

7. In FY 2007-08, the City incurred a total of \$893 for personnel costs relating to staff time for reporting on street sweeping costs. In FY 2008-09, the City incurred a total of \$920 for reporting on street sweeping cost. In FY 2009-10, the City incurred a total of \$947 for reporting on street sweeping cost.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 8th day of May, 2025, at National City, California.



STEPHEN MANGANIELLO
Director of Public Works / City Engineer

DECLARATION OF DAN KING

I, Dan King, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. I have been employed with the City of Solana Beach ("City") from 2003 to the present. Between September 2007 and July 2009, I was employed with the City as the Environmental Programs Manager. From July 2009 to July 2015, I was employed with the City as the Management Analyst. My positions in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the conveyance system inspections, conveyance system cleanings, street sweeping inspections, and street sweepings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

3. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning and inspection costs relating to the 2007 Permit. I was involved and responsible for managing, overseeing, and accounting for in-house personnel and non-personnel costs associated with inspecting and cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time individual staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and

am familiar with that compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal knowledge of in-house personnel worker's percentage of time dedicated to inspection and cleaning costs related to City's MS4.

4. As a part of my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this individual. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each worker costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

5. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

6. An in-house Maintenance Worker II was employed by the City from fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, with the Maintenance Worker II had an annual salary of \$47,775. With benefits and overhead, the in-house Maintenance Worker II cost the City \$73,956 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the Maintenance Work II dedicated two percent (2%) of their time to cleaning the City's conveyance system.

7. An in-house Operations Manager was employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, the Operations Manager had an annual salary of \$80,102. With benefits and overhead, the in-house Operations Manager cost the City \$118,551 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the Operations Manager dedicated point seventy-seven percent (0.77%) of their time reporting on conveyance system inspections.

8. In FY 2007-08, the City incurred \$1,479 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2008-09, the City incurred \$1,523 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2009-10, the City incurred \$1,569 in personnel costs relating to staff time for conveyance system cleaning operations.

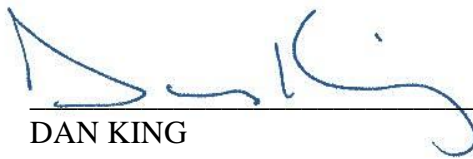
9. In FY 2007-08, the City incurred \$913 in personnel costs relating to staff time for reporting on conveyance system inspections. In FY 2008-09, the City incurred \$940 in personnel costs relating to staff time for reporting on conveyance system inspections. In FY 2009-10, the City incurred \$968 in personnel costs relating to staff time for reporting on conveyance system inspections.

10. In FY 2007-08, the City cleaned 17 catch basins. In FY 2008-09, the City cleaned 13 catch basins. In FY 2009-10, the City cleaned 26 catch basins.

11. In FY 2007-08, the City incurred a total of \$1,479 for conveyance system cleaning which includes conveyance system cleaning operations (“Conveyance System Cleaning”); Conveyance System Cleaning does not include reporting and employee and vendor training. In FY 2008-09, the City incurred a total of \$1,523 for Conveyance System Cleaning. In FY 2009-10, the City incurred a total of \$1,569 for Conveyance System Cleaning.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 15th day of May, 2025, at Solana Beach, California.


DAN KING

DECLARATION OF JOHN CONLEY

I, John Conley, declare:

1. I am over the age of 18 years. I have personal knowledge of the facts contained in this declaration and the statements made herein are based on my own personal knowledge, unless stated upon information and belief, and as to those statements, I believe them to be true. If called as a witness, I could and would give competent testimony as to each of the matters stated herein.

2. Between July 2007 and November 2010, I was employed with the City of Vista ("City") as the Community Development Director. In November 2010, I became the Interim Director of Community Development and Engineering which became permanent in January 2012. From March 2023 through the present, I hold the position of City Manager.

3. My position as Interim Director of Community Development and Engineering in part required me to manage and implement some of the tasks required by the Order R9-2007-0001, National Pollutant Discharge Elimination System ("NPDES") No. CAS0108758 ("2007 Permit"). In my position, I was required to ensure that the conveyance system cleanings are properly conducted to meet applicable 2007 Permit requirements. I was also required to review the various annual submissions to the California Water Quality Control Board – San Diego Region ("Regional Board") required by applicable 2007 Permit requirements. I have read and am familiar with the 2007 Permit and aware of what requirements it imposed on the City.

4. As a part of my duties and pursuant to the requirements of the 2007 Permit, I have personal knowledge of the cleaning and inspection costs relating to the 2007 Permit. I was involved and responsible for managing, overseeing, and accounting for in-house personnel and non-personnel costs associated with cleaning the City's MS4. I was also involved with tracking the allocation of time and resources necessary to carry out these activities. I was aware of staff assignments and how much time staff members dedicated to specific tasks required under the 2007 Permit. Additionally, information about the staff time in various positions was compiled and used to draft the various required annual reports and I have read and am familiar with that

compiled information and various annual reports. Based on my responsibilities, oversight, and familiarity of the information and reports, I have personal knowledge of in-house personnel worker's percentage of time dedicated to cleaning costs related to City's MS4.

5. As a part of my position, I have personal knowledge of each in-house personnel worker's annual salary and the total cost incurred by the City to employ this position. This included reviewing documents containing all related employment costs, such as wages, benefits, and adjustments. My role required me to be aware of how much each position costs the City because this information was necessary to prepare reports of stormwater program expenditures required by the 2007 Permit or other applicable MS4 permits to be submitted to the Regional Board each year.

6. Based on the above, I am familiar with the positions, jobs responsibilities, and time spent on those responsibilities for the people who have worked with me to comply with the requirements of the 2007 Permit for the City.

7. An in-house Maintenance Worker III was employed by the City from fiscal year ("FY") of 2007-08 to FY 2009-10. In FY 2007-08, the in-house Maintenance Worker III had an annual salary of \$53,235. With benefits and overhead, the in-house Maintenance Worker III cost the City \$74,742 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the in-house Maintenance Worker III dedicated fifteen percent (15%) of their time to cleaning the City's conveyance system.

8. Three level II in-house Maintenance Workers were employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, a Maintenance Worker II had an annual salary of \$45,986. With benefits and overhead, a Maintenance Worker II cost the City \$65,208 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, one in-house Maintenance Worker II dedicated fifteen percent (15%) of their time to cleaning the City's conveyance system. In each year from FY 2007-08 through FY 2009-10, two in-house level II Maintenance

Workers each dedicated seventy-five percent (75%) of their time to cleaning the City's conveyance system.

9. An in-house Public Works Supervisor was employed by the City from FY 2007-08 to FY 2009-10. In FY 2007-08, the Public Works Supervisor had an annual salary of \$70,386 in FY 2007-08. With benefits and overhead, the in-house Public Works Supervisor cost the City \$97,203 in FY 2007-08. The cost the City incurred increased three percent (3%) per year in FY 2008-09 and in FY 2009-10. In each year from FY 2007-08 through FY 2009-10, the Public Works Supervisor dedicated ten percent (10%) of their time to supervisions and management on conveyance systems cleaning.

10. In FY 2007-08, the City incurred \$118,805 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2008-09, the City incurred \$122,369 in personnel costs relating to staff time for conveyance system cleaning operations. In FY 2009-10, the City incurred \$126,040 in personnel costs relating to staff time for conveyance system cleaning operations.

11. In FY 2007-08, the City incurred \$9,720 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In FY 2008-09, the City incurred \$10,012 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations. In FY 2009-10, the City incurred \$10,312 in personnel costs relating to staff time for employee supervision and management relating to conveyance system cleaning operations.

12. In each year from FY 2007-08 through FY 2009-10, the City incurred \$697 in conveyance system cleaning costs relating to personnel equipment maintenance.

13. In In each year from FY 2007-08 through FY 2009-10, the City incurred \$2,871 in fuel costs relating each to conveyance system cleanings.

14. In each year from FY 2007-08 through FY 2009-10, the City incurred \$843 in conveyance system cleaning costs relating to non-personnel equipment maintenance.

15. In FY 2007-08, the City cleaned 1451 catch basins. In FY 2008-09, the City

cleaned 1569 catch basins. In FY 2009-10, the City cleaned 1562 catch basins.

16. In FY 2007-08, the City incurred a total of \$132,937 for conveyance system cleaning which includes conveyance system cleaning operations, employee supervision and management, equipment maintenance and fuel ("Conveyance System Cleaning"); Conveyance System Cleaning does not include reporting, employee and vendor training, and training materials and supplies. In FY 2008-09, the City incurred a total of \$136,792 for Conveyance System Cleaning. In FY 2009-10, the City incurred a total of \$140,763 for Conveyance System Cleaning.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 15 day of May, 2025, at Vista, California.


JOHN CONLEY

**DECLARATION OF LARA BARRETT
IN SUPPORT OF THE MUNICIPAL CLAIMANTS COMMENT
LETTER ON THE REVISED PROPOSED DECISION
FOR 07-TC-09-R**

I, Lara Barrett, declare as follows:

1. I am over the age of 18. I have personal knowledge of the facts set forth below and, if called as a witness, I could testify competently to all of the facts set forth herein.
2. Except as otherwise stated, the facts set forth herein are known to me personally or have been determined by my review of public records or official records maintained by the County of San Diego ("County") in the ordinary course of business. All records reviewed were maintained by authorized personnel of the County, or persons acting under their control, in the ordinary course of business at or near the time of the act, condition, or event described therein. If called to testify as a witness, I could and would testify competently thereto.
3. I have worked for the County for six years. I currently work in the County's Watershed Protection Program as a Land Use/Environmental Planner III.
4. I received education and training for my various positions with the County. Generally, all of my training taught me to perform my job consistent with applicable federal, state and local laws. I successfully completed all of my required education and training.
5. As a Land Use/Environmental Planner III, my responsibilities include: grant tracking and reporting, various compliance efforts, and support on legal cases. I have been in this role for approximately three years. Previously I worked in the Land Use and Environment Group Executive Office as a Chief Administrative Office Staff Officer for three years. My responsibilities in that role included preparation of documents and presentations for County Board of Supervisors ("Board") meetings and assisting departments in implementing Board direction.
6. In my role with the County, I have become familiar with Order No. R9-2001-0001, issued by the San Diego Regional Water Quality Control Board ("2001 Permit").
7. The County served as the "Principal Co-Permittee" under the 2001 Permit. In this role, the County was obligated to undertake a number of activities on behalf of or in coordination with the other entities subject to the 2001 Permit ("Co-Permittees"). As a result, the County has gathered, created, and maintained information and records documenting many of the activities undertaken and costs incurred by the County and other Co-Permittees. These include, but are not limited to the Jurisdictional Urban Runoff Management Program ("JURMP") documents described in the 2001 Permit Provisions G.1.-2. ("Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP document. . . . The Principal Permittee(s) shall submit the unified Jurisdictional URMP document to the SDRWQCB. . . . The unified Jurisdictional URMP document submittal shall contain a section covering common activities conducted

collectively by the Copermittees, to be produced by the Principal Permittee(s), and the twenty individual Jurisdictional URMP documents.”

8. On December 11, 2023, I was asked to gather records to support the creation of reasonable reimbursement methodologies to support reimbursement for the stormwater mandates from the 2007 Permit. The records I found, reviewed, and provided to D-Max Engineering included some of the JURMP Annual Reports from the 2001 Permit. The County was principal permittee responsible for coordinating annual reports. Annual reports described activities occurring during the reporting year. Annual reports were created annually and submitted to the Regional Board in January the following fiscal year. These reports reflect contemporaneous information and are signed under penalty of perjury. Specifically I found:
- (a) City of Encinitas 2005-2006 JURMP. A true and correct copy of City of Encinitas’s JURMP is attached here as Exhibit A.
 - (b) City of La Mesa’s 2005-06 JURMP. A true and correct copy of City of La Mesa’s JURMP is attached here as Exhibit B.
 - (c) City of San Diego’s 2005-06 Annual JURMP. A true and correct copy of City of San Diego’s JURMP is attached here as Exhibit C.
 - (d) City of Solana Beach’s 2005-06 Annual JURMP. A true and correct copy of City of Solana Beach’s 2005-06 JURMP is attached here as Exhibit D.
 - (e) City of Vista’s 2005-2006 JURMP. A true and correct copy of City of Vista’s 2005-06 JURMP is attached here as Exhibit E.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

May 14, 2025, Signatory’s Home Office
Date and Place

Lara Barrett
Digitally signed by Lara Barrett
Date: 2025.05.14 11:28:26 -07'00'

Lara Barrett

EXHIBIT A

TABLE OF CONTENTS

	Section/Page
CERTIFICATION STATEMENT	
EXECUTIVE SUMMARY	ES-1
1.0 Introduction	1-1
Section 1.1 – JURMP Implementation.....	1-1
Section 1.2 – Overview of Encinitas	1-1
Section 1.3 – Program Focus for FY 2005-06	1-2
Section 1.4 – Organization of Annual Report	1-2
Section 1.5 – Watershed URMP Implementation	1-3
Section 1.6 – Regional Implementation.....	1-3
2.0 Municipal (Existing Development) Component	2-1
Section 2.1 – Description of Activities.....	2-1
Section 2.2 – Summary of Inspections	2-13
Section 2.3 – Compliance and Enforcement Actions.....	2-14
Section 2.4 – Revisions to JURMP	2-14
3.0 Industrial (Existing Development) Component	3-1
Section 3.1 – Description of Activities.....	3-1
Section 3.2 – Summary of Inspections	3-2
Section 3.3 – Compliance and Enforcement Actions.....	3-2
Section 3.4 – Revisions to JURMP	3-2
4.0 Commercial (Existing Development) Component	4-1
Section 4.1 – Description of Activities.....	4-1
Section 4.2 – Summary of Inspections	4-2
Section 4.3 – Summary of Enforcement Actions	4-6
Section 4.4 – Revisions to JURMP.....	4-6
5.0 Residential (Existing Development) Component.....	5-1
Section 5.1 – Pollution Prevention	5-1
Section 5.2 – Best Management Practice (BMP) Implementation	5-5
Section 5.3 – Compliance and Enforcement Actions.....	5-9
Section 5.4 – Changes to JURMP	5-9
6.0 Land-Use Planning for New Development and Redevelopment	6-1
Section 6.1 – General Plan	6-1
Section 6.2 – Development Project Approval Processes.....	6-2
Section 6.3 – Environmental Review Process.....	6-7
Section 6.4 – Education Efforts Focused on New Development and Redevelopment	6-7
Section 6.5 – Revisions to JURMP	6-8
7.0 Construction Component	7-1
Section 7.1 – Description of Activities.....	7-1
Section 7.2 – Summary of Inspections	7-3
Section 7.3 – Compliance and Enforcement Actions.....	7-3
Section 7.4 – Construction Education	7-8
Section 7.5 – Revisions to JURMP.....	7-8

8.0	Illicit Discharge Detection and Elimination Component	8-1
	Section 8.1 – Illicit Discharge and Connections Identification	8-1
	Section 8.2 – Dry Weather Analytical Monitoring	8-2
	Section 8.3 – Investigations / Inspections and Follow-up	8-3
	Section 8.4 – Elimination of Illicit Discharges and Connections.....	8-3
	Section 8.5 – Enforce Discharge Prohibitions Ordinance	8-4
	Section 8.6 – Sanitary Sewer Overflows	8-5
	Section 8.7 – Public Reporting of Illicit Discharges and Connections – Public Hotline	8-7
	Section 8.8 – Limiting Infiltration from Sanitary Sewer to MS4	8-10
9.0	Education.....	9-1
	Section 9.1 – Outreach Tools/Approaches.....	9-1
	Section 9.2 – Jurisdictional Education Activities	9-2
	Section 9.3 – Watershed Educational Activities	9-10
	Section 9.4 – Regional Activities	9-12
	Section 9.5 – Partnerships	9-12
	Section 9.6 – Revisions to the JURMP	9-13
10.0	Public Participation	10-1
	Section 10.1 – Public Participation Approach.....	10-1
	Section 10.2 – Public Participation Implementation.....	10-2
	Section 10.3 – Revisions to the JURMP.....	10-7
11.0	Assessment of Jurisdictional URMP Effectiveness Component.....	11-1
	Section 11.1 – Introduction.....	11-1
	Section 11.2 – Level 1: Compliance with Activity-based Permit Requirements	11-1
	Section 11.3 – Level 2 & 3: Changes in Knowledge/ Awareness and Behavioral Changes	11-3
	Section 11.4 – Level 4: Load Reductions	11-6
	Section 11.5 – Level 5 & 6: Changes in Discharge and Receiving Water Quality	11-7
12.0	Fiscal Analysis	12-1
	Section 12.1 – Engineering Services Department.....	12-1
	Section 12.2 – Public Works – Operations and Maintenance.....	12-2
	Section 12.3 –Total Program Budget	12-3
	Section 12.4 – Program Funding	12-3
13.0	Special Investigations	13-1
	Section 13.1 – Moonlight Beach Urban Runoff Treatment Facility	13-1
	Section 13.2 – Clean Water Vote	13-2
	Section 13.3 – Beach Usage and Economic Studies	13-2
	Section 13.4 – Cottonwood Creek Bacteria Study.....	13-4
	Section 13.5 – San Elijo Lagoon Restoration Project	13-11
	Section 13.6 – Regional Channel Maintenance.....	13-11
14.0	Conclusions and Recommendations	14-1
	Section 14.1 – Introduction.....	14-1
	Section 14.2 – Conclusions.....	14-1
	Section 14.3 – Recommendations	14-2

LIST OF TABLES

Table 2-1 Kelp & Debris Removal Summary	2-2
Table 2-2 Wastewater CIP Projects	2-3
Table 2-3 Storm Drain Projects	2-3
Table 2-4 Storm Drain Inserts Inventory.....	2-8
Table 2-5 Summary of Environmentally Sensitive Area Debris Removal.....	2-12
Table 2-6 Municipal Facility Inspections	2-13
Table 3-1 Summary of Industrial Inspections FY 2005-06.....	3-2
Table 4-1 Summary of Commercial Inspections FY 2005-06.....	4-3
Table 4-2 Commercial Complaints Distribution FY 2005-06.....	4-5
Table 4-3 Commercial Enforcement Actions FY 2005-06.....	4-6
Table 4-4 Causes of Notices of Violation at Commercial Establishments- FY 2005-06	4-6
Table 4-5 Causes of Citations at Commercial Facilities 2005-06.....	4-6
Table 5-1 Household Hazardous Waste Volumes Collected FY 2005-06.....	5-1
Table 5-2 Trash and Recycling Collected (Diverted) for FY 2005-06.....	5-3
Table 5-3 Certified Used Oil Collection Centers Data and Summary.....	5-4
Table 5-4 Summary of Jurisdictional BMPs	5-6
Table 6-1 Priority Projects Under Engineering Development Review FY 2005-06.....	6-6
Table 7-1 Storm Water Pollution Prevention Plan Reviews FY 2005-06	7-2
Table 7-2 Construction Enforcement Actions, FY 2005-06	7-5
Table 8-1 IC/ID Investigations in Response to Dry Weather Monitoring, 2005.....	8-3
Table 8-2 Citations Issued FY 2005-06.....	8-3
Table 8-3 Sanitary Sewer Overflows, FY 2005-06.....	8-6
Table 8-4 Wastewater Projects	8-10
Table 8-5 Stormdrain Projects.....	8-11
Table 9-1 Summary of Media Coverage for FY 2005-06.....	9-7
Table 9-2 City of Encinitas School Based Activities	9-9
Table 9-3 Solana Center School Based Activities.....	9-10
Table 10-1 Summary of Public Workshop/Training Sessions FY 2005-06	10-2
Table 10-2 City of Encinitas Jurisdictional Community Events in FY 05-06	10-4
Table 10-3 Solana Center Public Participation Events for FY 05-06.....	10-6
Table 11-1 Level 1: Compliance with Activity-based Permit Requirements.....	11-2
Table 11-2 Fiscal Review for Program Effectiveness	11-6
Table 12-1 Engineering Clean Water Program Budget Summary for FY 2005-06.....	12-1
Table 12-2 Public Works – Operations and Maintenance.....	12-2
Table 13-1 Annual Beach Attendance Data, City of Encinitas	13-3
Table 13-2 Bacteria Removal Efficiencies	13-5
Table 13-3 Sample Locations for Special Bacteria Study	13-6
Table 13-4 Special Bacteria Study Downstream of UV Facility.....	13-8
Table 13-5 Geometric Mean Data by Reach.....	13-8
Table 13-6 Expected Fecal Indicator Bacteria Concentrations Downstream	13-9
Table 13-7 Percent Change in Fecal Indicator Bacteria Concentrations, Reach 1.....	13-9
Table 13-8 Percent Change in Fecal Indicator Bacteria Concentrations, Reach 1 to Reach 2 .	13-10
Table 13-9 Percent Change in Fecal Indicator Bacteria Concentrations, Reach 2 to Reach 3 .	13-10

LIST OF FIGURES

Figure 2-1 City of Encinitas Municipal Facilities Land Uses.....	2-6
Figure 8-1 Complaints by Category.....	8-5
Figure 8-2 Enforcement Actions FY 2005-06.....	8-5
Figure 8-3 Hazardous Materials Incidents 2005-2006, Encinitas Fire Dept.....	8-7
Figure 8-4 Reporting of Complaints	8-8
Figure 8-5 Complaints Distribution 2001-2006.....	8-8
Figure 8-6 Reporting of Complaints FY 2005-06	8-9
Figure 8-7 Sub-basin Complaints and Water Quality Exceedances.....	8-9
Figure 8-8 Complaints per Year	8-10
Figure 11-1 Complaints per Year	11-5
Figure 11-2 MBAS Concentrations 1992-2006 (LCS-1, CBS-2, and ENC-8)	11-8
Figure 11-3 Ammonia Concentrations 1992-2006 (LCS-1, CBS-2, and ENC-8)	11-8
Figure 11-4 Percent of Analyses Exceeding Water Quality Action Levels, 2002-2006.....	11-9
Figure 11-5 Bacteria Trends, Commercial Land Use Areas, 2002-2006.....	11-10
Figure 11-6 Bacteria Trends, Residential Land Use Areas, 2002-2006	11-10
Figure 11-7 Beach Postings at Moonlight Beach 1998-2006	11-12
Figure 13.0 City of Encinitas Annual Beach Attendance.....	13-3
Figure 13(a) Reach 1	13-6
Figure 13(b) Reach 1	13-6
Figure 13(c) Reach 2	13-6
Figure 13(d) Reach 3	13-6
Figure 13(e) Special Study Overview	13-7
Figure 13(f) Fecal Indicator Bacteria Trends Downstream of UV Facility.....	13-9

APPENDICES

APPENDIX A

- A-1 RWQCB Review of JURMP Annual Report for City of Encinitas, July 31, 2006, WPC: File 10-5006.02:dwoodward
- A-2 City of Encinitas Response to RWQCB Review of 2005-06 JURMP, August 31, 2006

APPENDIX B

- B-1 Municipal Inventory
- B-2 NPDES Maintenance Work Orders 2005-06 (hard copy only)
- B-3 Encinitas BMP Map (hard copy only)
- B-4 Integrated Pest Management Program
- B-5 Municipal Inspection Reports (hard copy only)

APPENDIX C

- C-1 Industrial Inventory
- C-2 Industrial Inspection Report (hard copy only)

APPENDIX D

- D-1 Commercial Inventory
- D-2 Routine Commercial Inspections Summary
- D-3 Inspection Database Manual
- D-4 Commercial Inspection Form 2006

APPENDIX E

- E-1 Brochures (English/Spanish)
- E-2 Manure Management Guide

APPENDIX F

- F-1 BMP Manual
- F-2 Stormwater Management Ordinance
- F-3 Stormwater pollution Control Checklist and Certification
- F-4 Building Plan Notes
- F-5 Storm Water Pollution Control Conditions of Approval for New Development
- F-6 Full List of SUSMP Conditioned Projects
- F-7 Stormwater Maintenance Agreement
- F-8 CEQA Initial Study Checklist

APPENDIX G

- G-1 Construction Inventory
- G-2 Map of Construction Sites
- G-3 FY 2005-06 Rainfall Data
- G-4 FY 2005-06 Construction Site Stormwater Inspection Checklist
- G-5 Erosion Control Letter
- G-6 Technical Report

APPENDIX H

- H-1 MS4 & Dry Weather Monitoring Stations Map (hard copy only)
- H-2 2005 Dry Weather Monitoring Report
- H-3 Dry Weather Monitoring Field Data Sheet
- H-4 Administrative Citation Form
- H-5 Complaints Database
- H-6 Hazardous Materials Incident Listings, Encinitas Fire Department (hard copy only)

APPENDIX I

- I-1 General Stormwater Brochures
- I-2 Stormdrain Stenciling (hard copy only)
- I-3 Encinitas Stormwater Web Page (hard copy only)
- I-4 Door Hangers & Click Pens
- I-5 New Watershed Pencil
- I-6 Restaurant Stormwater BMP Poster
- I-7 Automotive Stormwater BMP Poster
- I-8 Construction Brochure

APPENDIX J

- J-1 Clean Water Vote Mail-out Survey
- J-2 Clean Water Program Mail-out Questions and Answers Document

EXECUTIVE SUMMARY

The City of Encinitas Clean Water Program has compiled this report to summarize the activities and accomplishments of the program for the reporting period of Fiscal Year 2005-06 (July 1, 2005 through June 30, 2006). This report is in response to requirements set forth by the California Regional Water Quality Control Board, San Diego Region, in Order No. 2001-01, NPDES No. CAS0108758, which describes individual tasks that must be implemented and reports that must be submitted. This report provides a comprehensive summary of the City of Encinitas' efforts during the reporting period in accordance with Section I of Order 2001-01.

ES.1 Background

In 1987, Section 402 of the Federal Clean Water Act was amended by the United States Congress to require the Federal Environmental Protection Agency (EPA) to include regulations for non-point stormwater discharges. The regulations control pollutant discharges into State waters from municipal stormwater systems by the issuance of the National Pollutant Discharge Elimination System (NPDES) Permit. The California State Water Resources Control Board has been delegated the authority by the EPA to administer the NPDES permit for the State of California. In turn, the Regional Water Quality Control Board (RWQCB), San Diego Region, administers the permit at the local level.

On February 21, 2001, the RWQCB San Diego Region adopted Order No. 2001-01 NPDES No. CAS 0108758, *Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, and the San Diego Unified Port District*. The provisions of the Order require the development and implementation of comprehensive Jurisdictional Urban Runoff Management Programs (JURMP). The Order names the County of San Diego as the "principal Copermittee" and lists the City of Encinitas as one of the 21 Copermittees. It is anticipated that a new Municipal NPDES Permit will be issued in early 2007.

In February of 2002, the City of Encinitas submitted its JURMP to the RWQCB and has now been implementing it for nearly five years. This annual report is the fifth annual report submitted under Order No. 2001-01.

ES.2 Overview of the City of Encinitas

The City of Encinitas is a small residential coastal community in northern San Diego County. The current population is approximately 60,000 and is generally built out. Encinitas is bordered by the Pacific Ocean to the west, Batiquitos Lagoon to the north, and the San Elijo Lagoon to the south. These three receiving waters receive all stormwater and urban runoff from the City.

ES.3 Summary of FY 2005-06 Annual Report

The following sections summarize the activities conducted on a jurisdictional basis during this reporting period. The City also actively participates in regulatory programs on a watershed and regional basis. The jurisdictional programs are presented below and are organized to follow the outline of Order 2001-01. Watershed programs are reported in the Carlsbad Watershed Urban Runoff Management 2005-06 Annual Report and regional programs are presented in the San Diego Region 2005-06 Unified Annual Report, both submitted under separate cover.

ES.3.1 Land-Use Planning for New Development and Redevelopment

In 2003, the City of Encinitas' local Standard Urban Stormwater Mitigation Plan (SUSMP) was established in the City's Storm Water Best Management Practices Manual, Part II. The SUSMP program aims to reduce the impact from development on receiving water quality. Since then the City has successfully integrated the SUSMP into their overall review and approval process for ministerial and discretionary projects. There has been a heavy focus on implementing the SUSMP program; requiring SUSMP best management practices (BMPs) on each project that goes through the City system, introducing the requirements at the earliest opportunity, and encouraging developers to use natural BMPs rather than concrete structural BMPs. In FY 2005-06, nearly 100 projects were conditioned with SUSMP BMPs. Of these 14 were priority projects requiring treatment BMPs. A new checklist and certification form has been developed to help alert developers during the development application stage of their obligations under the City's SUSMP program. During this reporting period, developers began using this form during the early planning process.

ES.3.2 Construction Component

The City has made a strong emphasis on its construction component. The emphasis begins with construction site BMP requirements that must be shown on grading plans, an aggressive inspection program and strong enforcement policies. The City's Engineering Services Department employs six full time engineering inspectors. All inspectors have been trained regarding proper stormwater BMPs applications. They inspect construction sites for compliance with the City's Stormwater and Grading Ordinance, and program-required BMPs. During this reporting period, the construction inventory included a total of 118 project sites, of which 23 were considered high priority and were inspected on a weekly basis over the rainy season. The number of formally documented inspections and enforcement cases increased during this reporting period. The addition of a full-time stormwater inspector in 2003 has broadened the level of support that the Clean Water Program can provide to construction inspectors.

ES.3.3 Existing Development

Municipal Component

The City owns and operates approximately 50 municipal facilities, three of which are deemed high priority. These three facilities are subject to annual stormwater inspections and were all inspected in the FY 2005-06. All recommended BMPs were implemented by staff at these facilities. Publicly-owned catch basins and detention basins throughout the MS4 were cleaned. Debris and trash was removed from creeks and beaches, including several encampments. An integrated pest management program (IPM) program was implemented by Community Services Department who is responsible for the maintenance of City parks and properties. Another major accomplishment is the City's continued efforts towards pollution prevention, including the use of recycling trash bins throughout the City's parks and bus stops, multiple BMPs implemented at the new Cottonwood Creek Park, including pervious pavement, open-channel drainage facilities, drought tolerant landscaping and the "daylighting" of Cottonwood Creek as it drains through the park, and the use three hybrid vehicles for City use. During this reporting period, the City increase trash pick-up at bus stops after identifying that they generate high volumes of trash and constructed a new detention basin to control sediment.

Industrial Component

There are three facilities considered to be industrial and therefore high priority in the City of Encinitas. Each of the three was inspected in FY 2005-06 (two by the City and one by the County of San Diego) for stormwater BMPs.

Commercial Component

The Clean Water Program focused efforts on three categories of facilities that are deemed to have the highest potential to generate stormwater pollution. In the current reporting period, there were 403 commercial facilities deemed high priority by the Municipal Permit, of which 126 were inspected and enforcement actions were taken at 58. The addition of a full-time stormwater inspector in 2003 has improved the program's focus on the inspection process. Continued improvements in the stormwater GIS and data management system have improved the tracking and follow-up process. Staff now have the stormwater GIS available on their desktop computers to view facility and compliance information. The grease program continues to be implemented and during the FY 2005-06 three grease traps/interceptors were added at new and/or remodeled restaurants. This effort has reduced the amount of grease-related private lateral sewer overflows. Throughout the City there has been a notable increase in the number of BMPs implemented by restaurants and nurseries. The incidences of obvious discharges such as dumping of mop water have reduced.

Residential Component

The City's residential program strives to minimize the impact of discharges from residential areas through pollution prevention and BMP implementation. The City provided household hazardous waste collection, trash and recycling services, oil recycling, a compost bin sale, and implemented other structural and non-structural BMPs to achieve the goal of reducing pollutants from residential areas. The education and outreach activities for residential component included the distribution of a series of previously developed stormwater brochures at public events and to residents during inspections. The brochures (written in English and Spanish) focus on residential activities and BMPs that will reduce stormwater pollution. The municipal website has been updated in order to help residents more readily obtain stormwater information.

ES.3.4 Illicit Discharge/Illegal Connection Component

The City's IC/ID program consisted of the dry weather monitoring program, a stormwater hotline, routine inspections, and visual inspections of the MS4. Staff monitored 52 dry weather sites in the 2006 dry season and received 150 documented complaints from the public and city staff over the course of the reporting period. One significant illicit discharge of grease was detected and corrected as a result of the ICID program in 2005-06. The City has successfully evaluated water quality on a sub-basin level, correlating number of complaints with water quality exceedances to better understand where efforts are needed. Bacteria and nitrates have been identified as high priority constituents of concern. The areas of highest water quality exceedances and complaints in the City are the more heavily developed areas including the Old Encinitas, Leucadia and La Costa (along El Camino Real) sub-basins. Spill response procedures and coordination between internal departments were improved during the reporting period.

ES.3.5 Education Component

The City has developed an education component that has reached a wide variety of target audiences through a broad range of educational tools. The City targeted specific audiences: employees (Planning and Engineering plan checkers), commercial/industrial, construction, and

in 2005-06, school children. General audiences are also educated using media coverage and newsletter articles in residentially-oriented publications. The City partnered with nonprofit groups, the watershed, and regional programs to maximize educational resources. During FY 2005-06 educational efforts to the residents of Encinitas and at elementary schools was improved.

ES.3.6 Public Participation

The City continued to provide public participation opportunities during this reporting period through conducting events and through being involved in stakeholder groups such as the Carlsbad Watershed Network and the Escondido Creek Watershed Alliance. This year 23 public participation opportunities were provided.

ES.3.7 Assessment of JURMP Effectiveness

The City of Encinitas has complied with all the requirements of Order 2001-01 through a wide range of programs that are overseen by the Clean Water Program. Through these efforts many aspects of the City's operations have been improved as well as the actions of the community. The knowledge level of staff has continued to increase and staff has noticed an increased level of knowledge in developers and in the commercial establishment. More and more BMPs are being implemented and constructed throughout the City. The City is able to show that there is a downward trend in the percentage of exceedances of water quality action levels in the storm drain system from 2002 through 2006.

ES.3.8 Fiscal Analysis

The City of Encinitas implemented a Clean Water Fee in FY 2003-04 to offset reliance on the general fund. The fee was set at \$5.00 per month per active water meter in the City. The fee was collected through the waste disposal (EDCO) bills since the spring of 2004. However, the Howard Jarvis Taxpayers Association challenged the Clean Water Fee based on Proposition 218 requirements. In FY 2004-05, the City stopped collecting the fee as part of the challenge and has been working towards putting the Clean Water Fee to a public vote. In 2005-06, the Clean Water Fee was put to vote but did not pass by a significant margin, even though pre-surveys about the vote indicated strong support.

ES.3.9 Special Investigations

Several special investigations were performed by the Clean Water Program including: continued operation and monitoring of the Moonlight Beach Urban Runoff Treatment Facility, the Clean Water Vote, the Beach Usage and Economic Value Studies, the Cottonwood Creek Bacteria Study, the San Elijo Lagoon Restoration Project, and the Regional Channel Maintenance Workgroup. Additionally, the Clean Water Program participated in several watershed and regional projects and groups including: the Escondido Creek Watershed Alliance, the Beach Water Quality Workgroup, the Regional Channel Maintenance Workgroup, the Southern California Coastal Water Research Project, the Stakeholder Advisory Groups for TMDL development for Bacteria I (beaches and creeks) and Bacteria II (lagoons), and the Reference Beach Workgroup.

ES.4 Conclusions and Recommendations

The City of Encinitas has successfully implemented Order No. 2001-01 in FY 2005-06. This year completes the fifth year of program implementation. Overall, a great deal of effort has been expended to reduce pollutants from entering the City's waterways and the Pacific Ocean.

The focus of the Clean Water Program from the start has been education, commercial facilities, development and redevelopment activities, water quality monitoring and, storm drain mapping. These areas were pursued effectively this year and with a more purposeful approach. Through the water quality monitoring program, the City has been able to isolate constituents and geographical areas of concern. Based on this year's Dry Weather Monitoring Report, the City's priority constituents of concern are bacteria indicators and nitrates. The priority sub-basins based on both water quality and the number of complaints, are the Encinitas, Leucadia and La Costa South Sub-basins. These areas are the most heavily developed sub-basins in Encinitas. This year's water quality assessment indicates that there is a downward trend in the number of overall water quality exceedances in the City.

Following are proposed areas of program focus for the next fiscal year (only components where program improvements are deemed necessary are included). The City will pursue these activities, however, because they are extensive, may not be able to accomplish them all in one year.

Land-Use Planning for New Development and Redevelopment:

- Expand the Stormwater Checklist for use on all new development projects
- Map existing SUSMP BMPs

Construction:

- Maintain pressure on inspectors to keep stormwater issues a high priority

Municipal:

- Pursue City-wide channel maintenance permit
- Increase kelp removal from Cottonwood Creek and beaches
- Remove trash from creeks after each storm
- Inspect the City's new public works yard

Commercial:

- Develop procedures to track follow-up inspections for high priority facilities
- Improve the commercial inspection program database using the City's new Cityworks program for better inventory control and inspection tracking
- Inspecting 100% of restaurants in accordance with the Carlsbad Watershed URMP

Education:

- Move educational effort towards addressing specific constituents and geographic areas
- Move towards a regional education program

Illicit Discharge Detection and Elimination:

- Pursue grant funding for a special study on bacteria issues downstream of the UV Treatment Facility
- Re-evaluation of the number and location of Dry Weather monitoring site to adjust to possible new requirements in the upcoming new municipal permit.

Assessment of Jurisdictional URMP Effectiveness:

- Continue to move towards adopting the Regional Copermittee assessment strategy
- Continue developing Loads Assessment methods

Fiscal Analysis:

- Prepare for the next Permit budget cycle

Watershed:

- Focus watershed efforts on comprehensive monitoring for the lagoon TMDL that will lead to a better understanding of pollutant sources and management strategies

1.0 INTRODUCTION

The City of Encinitas is a Copermittee regulated under the San Diego County Municipal Stormwater NPDES Permit. This permit was reissued by the Regional Water Quality Control Board (RWQCB) on February 21, 2001 and is designated Order No. 2001 -01, NPDES No. CAS0108758, herein referred to as the Municipal Permit. Order No. 2001-01 was issued to 18 cities, the County of San Diego, the Port of San Diego and the San Diego Airport Authority, collectively known as the Copermittees. Under this permit, the City is required to develop and implement a Jurisdictional Urban Runoff Management Program (JURMP), which establishes the activities the City will carry out to be in compliance with the Municipal Permit, but more importantly, to improve water quality in stormwater and urban runoff within its jurisdiction. Further, the City is required to prepare an Annual Report that recounts the activities performed during each year (Municipal Permit Section I). This report is the fifth annual report under the new program and covers the implementation period for Fiscal Year 2005-06 (FY 2005-06), which is July 1, 2005 through June 30, 2006.

The Annual Report is reviewed by the RWQCB each year and comments are incorporated into a response letter or into the following Annual Report. RWQCB comments and the City of Encinitas Response for the 2004-05 JURMP Annual Report are included in Appendix A-1 and A-2, respectively.

1.1 JURMP Implementation

In the City of Encinitas, the JURMP is primarily implemented in the Engineering Department and the Public Works Department. Engineering provides program management, education, inspections and water quality assessments, and Public Works (NPDES Division) performs MS4 inspection and cleaning services. The Planning and Parks Departments also implement portions of the Clean Water Program through project conditioning and public land maintenance.

1.2 Overview of Encinitas

The City of Encinitas is a semi-arid coastal community located in the North County area of San Diego County, approximately 22 miles north of downtown San Diego. The City is fully within the Carlsbad Hydrologic Unit and is split between the San Marcos Watershed to the north and Escondido Creek Watershed to the south. The City encompasses an overall area of nearly 20 square miles and has six miles of coastline. The current population is approximately 58,000. Encinitas receives an average annual rainfall of approximately 10 inches.

The City is nearly surrounded by sensitive water bodies. Stormwater in the north drains to Batiquitos Lagoon, which is designated a Critical Coastal Area in the State of California 2002 Critical Coastal Areas Strategic Plan. To the south and east, stormwater drains to Escondido Creek (which drains to San Elijo Lagoon) or directly to San Elijo Lagoon. San Elijo Lagoon is a 303(d) impaired water body listed for sediment/siltation, bacteria indicators, and eutrophic conditions. In addition, it is also designated as a Critical Coastal Area. In the west, stormwater drains to the Pacific Ocean (via Cottonwood Creek or directly). The Pacific Ocean is listed as a 303(d) impaired water body at Moonlight Beach for bacteria indicators due to urban runoff from Cottonwood Creek. In general the city drains to three blue-line creeks; Cottonwood Creek, Encinitas Creek and Escondido Creek. Cottonwood Creek drains the heart of Encinitas and discharges to the Pacific Ocean at Moonlight Beach. Encinitas Creek drains the north-central

portion of the city, and drains into Batiquitos Lagoon. Escondido Creek drains the southern and northwest (Olivenhain) portion of the city and drains into the San Elijo Lagoon.

1.3 Program Focus for FY 2005-06

Although all component requirements of the Municipal Permit are addressed in this Annual Report, the focus of the Clean Water Program during the FY 2005-06 reporting period were as follows:

- Clean Water Fee – establishing of a funding source independent of the General Fund was an important focus of the program this reporting period.
- Education – educating the school children on stormwater issues and how to change their behaviors to protect and improve water quality.
- Commercial Activities – inspection and education of commercial businesses to encourage them to incorporate BMPs into their operations to reduce the potential for pollutants to leave their site in urban runoff or stormwater. The City also focused on the development of an automated GIS-based inspection tracking process.
- Development and Redevelopment Activities – working with developers to implement stormwater BMPs during construction and post-construction (SUSMP) to reduce the impacts of development on water quality. This year the focus was put on developing a certification program so that developers certify their project for post-construction BMP compliance at the earliest point in the approval process.
- Monitoring – evaluating local water quality data in more depth to understand the City's water quality problems better on a sub-basin level and identify water quality trends. The City continues to identify and eliminate illicit discharges through evaluation of dry weather monitoring data.
- Storm Drain Mapping – completing an integrated GIS for the storm drain infrastructure and Clean Water Program elements. This GIS includes municipal BMPs and commercial establishments and has become a key tool for program implementation.
- TMDL Development – coordinating with the RWQCB and responsible parties on the development of Investigation Order 2006-076 for the upcoming Lagoon TMDL and the Bacteria TMDL for Beaches and Creeks, which effects Moonlight Beach.

One of the most important tools used for the implementation (and enforcement) of the JURMP is the Storm Water Management Ordinance which establishes the local regulatory framework for the program. During the 2002-03 reporting period, minor updates were made to this ordinance to make it more consistent with the intent of the Municipal Permit. The ordinance has proved to be a solid and enforceable document, and enforcement has been enhanced by the implementation of an Administrative Citation process during the 2004-05 implementation period.

1.4 Organization of Annual Report

This Annual Report is organized to be consistent with the format of the JURMP and the format established by the Regional Program. A description is provided of the activities performed for each of the following components:

- Land use planning for new and redevelopment (Section 6),
- Construction (Section 7),
- Existing development (Municipal – Section 2, Industrial – Section 3, Commercial – Section 4, and Residential – Section 5),

- Education (Section 9),
- Illicit discharge detection and elimination (Section 8),
- Public participation (Section 10),
- Assessment of the JURMP effectiveness (Section 11),
- Fiscal analysis including the upcoming year's budget (Section 12),
- JURMP revisions (discussed in each section),
- Special monitoring investigations (Section 12),
- Water quality improvements or degradation (Section 8 and 11), and
- Identification of ineffective management measures (Section 11).

1.5 Watershed URMP Implementation

Another focus of Clean Water Program during this reporting period was the continued implementation of the Carlsbad Watershed Urban Runoff Management Program (Carlsbad Watershed URMP), a program for implementation of watershed-based activities. Section J of the Municipal Permit requires that Copermittees sharing a watershed must develop a plan to address stormwater and urban runoff on a watershed basis. The Carlsbad Watershed shared by the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, Vista, and the County of San Diego.

The City of Encinitas is Lead Copermittee for the Carlsbad Watershed (more accurately defined as the Carlsbad Hydrologic Unit). The Carlsbad Watershed URMP was developed and submitted to the RWQCB in January 2003. Since that time the Carlsbad Watershed Copermittees have been implementing the watershed program. The focus of the program has been on collaboration between Watershed Copermittees, developing and implementing water quality and education activities, developing and distributing education material, assessing water quality monitoring data, and providing opportunities for public participation/stakeholder involvement. Annual reports are also prepared for the watershed program.

1.6 Regional Implementation

The City of Encinitas Clean Water Program is an active participant of the Regional Copermittee Management Committee. In addition, the City has an active role in several regional programs, including the Dry Weather Monitoring Workgroup (leading the Coastal Monitoring Subgroup), and the Watershed URMP Workgroup. The City also participates in other regional programs such as the Phase I Bacteria and Lagoon TMDL Stakeholder Advisory Groups (SAG) and the Southern California Coastal Water Research Project (SCCWRP) (Beach Water Quality Workgroup).

2.0 MUNICIPAL (EXISTING DEVELOPMENT) COMPONENT

The municipal component of the City's Clean Water Program includes proper management of facilities owned and operated by the City of Encinitas to eliminate or reduce the amount of pollutants that enter the storm drain system. These facilities include the streets, the storm drain system, municipally owned facilities; city buildings, maintenance yards, fire stations, parks, and open space. The updated municipal facilities inventory is included as Appendix B -1.

The pollutants of concern associated with municipal activities include oils and grease from leaking engines, litter, herbicides used for vegetation control, pesticides used for animal control, paints and solvents, battery acids from leaks, anti-freeze from leaking radiators, heavy metals from brake linings, green waste from roadside maintenance, and sediment from construction and earth moving.

2.1 Description of Activities

The municipal component of the City's Clean Water Program includes proper management and maintenance of the MS4, the municipally owned facilities, parks, and open space areas. The primary goals of the program are staff education, BMP implementation, and facility inspections. The following municipal activities are covered under this component: street sweeping, storm drain maintenance, litter control, capital projects (roadway repair and maintenance), parks and recreation maintenance, and public lands maintenance.

2.1.1 Pollution Prevention

Pollution prevention activities are aimed at keeping pollutants from entering the storm drain system. The primary pollution prevention activities include:

- Street Sweeping,
- Litter Control,
- Encampment Cleanup,
- Capital Projects: Drainage and Sewer;
- Municipal Facilities;
- Landscape Management of Public Areas; and
- Placed recycle receptacles in all City Parks, beaches, and bus stops.

Street Sweeping

Street sweeping is an effective method of reducing the amount of pollutants on street surfaces that will contribute to water quality impairment. The City uses two types of street sweepers depending on the type of debris to be removed, a broom sweeper and a vacuum sweeper. Arterial streets are swept weekly, collector streets are swept bi-weekly, and residential areas are swept on a monthly basis. A total of 8,282 linear curb miles (the same as last year) of streets are swept each month by the street sweepers. The quantity of sweeping debris removed was estimated based on standard removal rates for the first time this year and totaled approximately 273 tons.

The City of Encinitas Public Works Department maintains publicly owned storm drain channels, pipes, detention basins, inlet boxes, and associated infrastructure on a regular basis. Public Works crews operate one Vac-con truck, which is effective in cleaning pipes and storm drain

boxes while eliminating discharges associated with cleaning activities. A second Vac-con is also available in the wastewater department to assist with recovery efforts when needed. All components of the MS4 are on a routine cleaning schedule by area and all catch basins are cleaned on an annual basis.

Litter Control

Public Works crews and county probation crews collect litter in any necessary areas based on visual observations and citizen complaints. Bus stops have been identified as significant sources of litter that has the potential of entering the MS4. After studying the bus stop locations and the increase of trash that was collected by City service trucks, the City partnered with NCTD to install trash receptacles and provide maintenance, thus reducing pollutants entering our MS4. In 2004 new trash receptacles were added at thirteen locations. Several of these were recycling trash receptacles. In addition, crews collect litter in areas of known debris accumulation on a routine basis citywide. During the FY 2005-06 reporting period, Public Works (using probation and PWI Crews) removed 14,734 bags of litter from bus stops, storm drain channels/basins, and right-of-ways. Appendix B-2 illustrates the breakdown of the work orders for the NPDES division.



Encampment Program - Homeless, migrants and others tend to gather in waterways whereby feces, urine and trash are deposited directly into the creek. On numerous occasions, the City has contracted to clean up the trash and debris left behind and to encourage the homeless to find other places to stay. This is discussed further in Section 2.1.5.

Beach Clean Ups – The City conducted two beach clean ups during this reporting period. These clean ups were coordinated with Solana Recyclers and the Carlsbad watershed. A total of 117 pounds of litter and debris were removed through these beach cleanups.

Kelp Removal - The City continued a kelp removal program to reduce the beach postings at Moonlight Beach. In a recent report by MEC (Weston), titled the Mission Bay Source Identification Project, the main conclusion stated that urban runoff flowing through kelp increases the likelihood beach postings. Table 2-1 shows the litter and kelp removal activities provided by an outside contractor.

Table 2-1 Kelp & Debris Removal Summary

Date	Location	Quantity Removed
11/04/05	I-5 /Encinitas Blvd./Del Taco	2,800 lbs. of debris
1-1-06 – 6/20/06	Cottonwood Creek Pond 96" Drain	900 lbs. of debris (organic & inorganic)

Capital Projects

The Engineering Department was instrumental in completing numerous capital improvement projects that will reduce sewage spills in the future by improving the wastewater collection system. Capital Improvement Projects incorporate sewer pump station upgrades, sewer main

replacements and removal of pump stations. The sewer and emergency repair projects completed or initiated during FY 2005-06 are shown in Table 2-2.

Table 2-2 Wastewater CIP Projects

Project Title	Budget	Goal	Status
Encinitas Blvd Sewer Main Replacement	\$779,000	Reduce sewage spills & increase capacity	Completed
Moonlight Beach Pump Station Rehabilitation*	\$3.7 M	Reduce sewage spills & pump station reliability	In Design Phase
Regal Pump Station Removal	\$300,000	Reduce sewage spills & remove pump station	Under Construction
Olivenhain Pump Station Upgrades	\$4M	Pump station reliability and sensitive location to lagoon	In preliminary design
Hwy 101 Sewer Forcemain, Phase III	\$752,000	Replace old ductile iron pipe to reduce sewage spills and leaks	In Design Phase

* Partially funded by Clean Beaches Initiative Grant to reduce beach closures due to overflows from the old pump station.

The Engineering Department was also instrumental in completing numerous drainage capital improvement projects. These projects are outlined in Table 2-3.

Table 2-3 Storm Drain CIP Projects

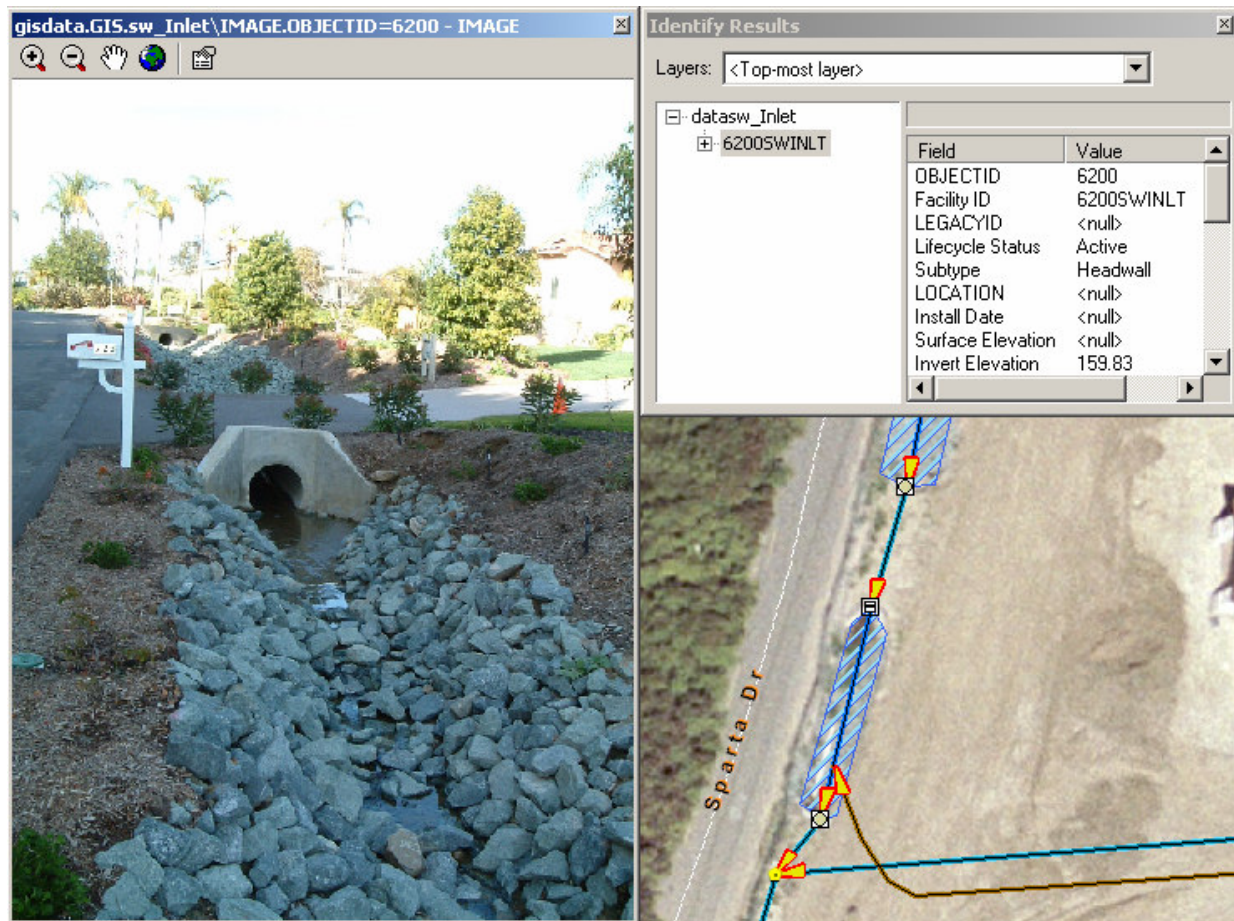
Project Title	Budget	Goal	Status
Lone Jack (Stratford Knoll) Channel Improvements	\$550,000	Installing new storm drain	In Design Phase
4th Street Storm Drain	\$505,700	Eliminate flooding and erosion of beach area	Design Complete
Manchester Ave. Storm Drain	\$44,000	Replace collapsing CMP pipe (will reduce sediment in MS4)	Complete
SDG&E Easement Storm Drain	\$137,000	Replace broken concrete channel with storm drain pipe	Complete
Burgundy Road Storm Drain	\$53,200	Replace collapsing CMP pipe (will reduce sediment in MS4)	Complete
Total Cost	\$1,289,900		

Storm Drain System Map and Information Management

The City of Encinitas has a mature GIS program in which the entire City's storm water infrastructure has been mapped in detail. The City continually updates the system on an on-going basis as part of routine maintenance, including adding new storm water improvement constructed in the City and quality control issues. Quality control issues include such things as locating missing plans, standardizing the list of BMPs, capturing photographs and associating them to the GIS features, and filling in missing attribute information, (obtained from found plans or field verification). When necessary the City also will go into the field to GPS any storm water infrastructure as needed – the overall spatial accuracy of the system is roughly within a 5-foot tolerance.

With such a high degree of detail available in the GIS system, City staff has many new automated tools at their disposal. In most cases the data is so rich in detail, storm water staff can get the information they need about an infrastructure feature right from their desktop with a click of the mouse – thus saving time from having to go into the field. Additionally, specific data

can be queried, and reports or maps generated due to the detail in which attribute information is collected about the features. Finally, the entire storm water system has been built as a “network”, which allows for network tracing – meaning an outfall can be “clicked in the GIS” and the system will trace up the network and highlight all inlet points for that segment(s) of storm drain system. This helps facilitate finding potential pollution sources – a real time savings when investigating a problem.



Also, during this reporting period, the City developed a program for inspections of storm water “commercial sites” using the City’s Asset Management Software – this software is fully integrated into the City’s GIS system and gives staff the ability to track routine inspections, record discharge complaints and auto generate upcoming sites that are due for an annual inspection. These inspections and complaints are all tracked in an automated system that is linked directly to the storm water GIS layers – providing a very comprehensive means for reporting and summarizing issues and problems found. This system will be implemented beginning July 1, 2006.

The City Encinitas’ storm water GIS program is much more than “just a map”. The system is a dynamic up to date means of accessing information quickly and efficiently to solve clean water monitoring problems and facility tracking.

Municipal Facilities

The City employs a multitude of pollution prevention practices at City Hall. These practices have been expanded each year and include:

- the use of recycled paper (30%) for all copiers and printers,
- installation of an Automated Logic System (ALS) which controls the Heating, Ventilation and Air Conditioning (HVAC) system,
- implementing a 9-80 work week so that City Hall is closed every other Friday,
- installing lighting controls and timers that time lights in specific areas of the building based on specific needs and maximizes the time when lights are out,
- synchronizing traffic signals on four main arteries throughout the City to maintain traffic flow and reduce emissions due to braking and accelerating,
- implementing a battery collection and recycling program at City Hall,
- replacing large trash receptacles at individual desks with large recycling containers for mixed paper and cans/bottles and mini trash receptacles, thereby encouraging employees to minimize trash and maximize recycling,
- placing recycling centers in conference rooms that include mixed paper, cans/plastic, and trash compartments,
- use of three hybrid cars for City vehicles (Honda Civic, Toyota Prius, and Ford Escape Hybrid); the two sedans are used for pool vehicles and the Escape is used by a Public Works Superintendent,
- use of special recycling trash receptacles at public parks and beaches to encourage recycling,
- construction of bus stop improvements including placement of trash receptacles to reduce litter, and
- a subsidized compost bin sale to encourage diversion of food waste from landfills.

Landscape Management of Public Areas

During the reporting period public areas were maintained using methods to minimize over watering using a computer controlled irrigation system. The system was automatically shut-off if a system leak was detected. Sensors in landscaping areas were used to shut down irrigation when rain was detected. Fertilizers were applied carefully in order to reduce spillage outside of planted areas.

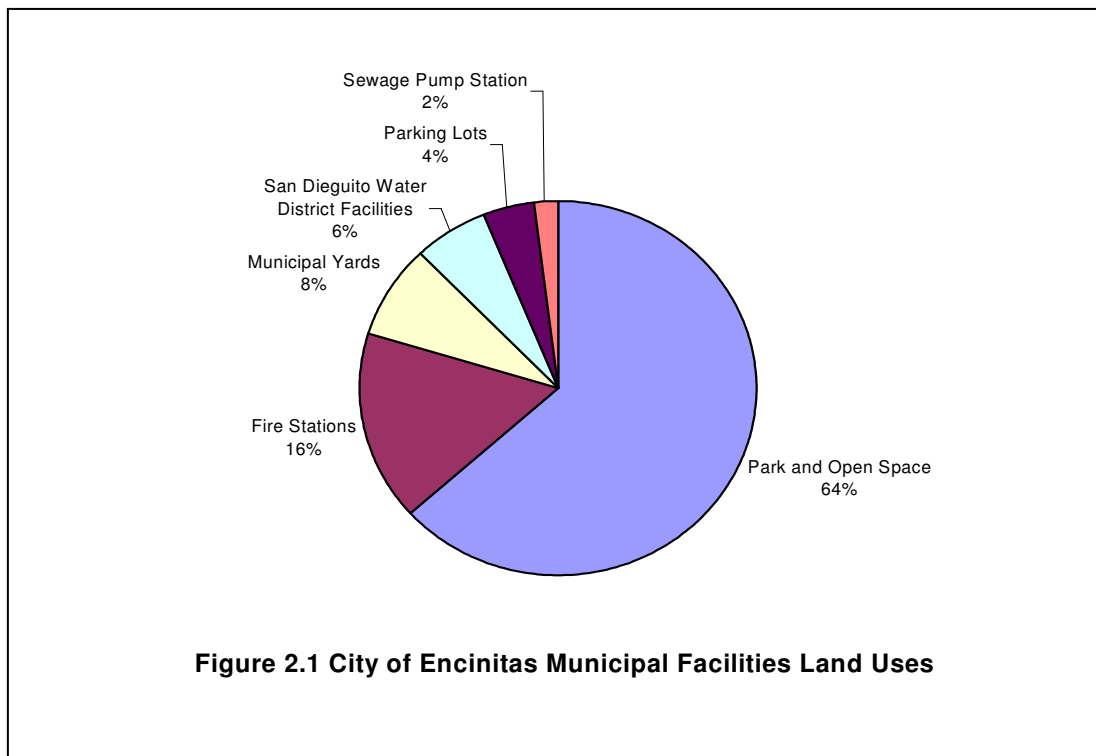
2.1.2 Source Identification and Prioritization

The City of Encinitas owns, operates, and maintains 50 municipal sites within the City. All locations are visually inspected on a routine basis and any illicit discharges or illegal connections are referred to the Clean Water Program. Of these sites, three have been classified as high priority according to Section F.3.a. (3) of the Municipal Permit. The high priority sites in Encinitas include:

- Fleet Maintenance Yard, 811 Orpheus;
- Requeza Street facility, 397 Requeza; and
- San Elijo Public Works Wastewater Division Yard, 2695 Manchester Avenue;

Appendix B-1 provides an updated municipal inventory that lists the municipal facilities in Encinitas with addresses, land uses, priority, and watershed sub-basins. George Berkich Park

was removed from the list because it is now a school sports field. Figure 2.1 illustrates the land uses and activities at the municipal sites in Encinitas.



All high, medium, and low priority municipal facilities must implement certain minimum best management practices. These include good housekeeping, litter control, employee training, waste disposal and recycling, and facility and grounds maintenance. The BMPs implemented at municipal facilities are discussed below.

2.1.3 BMP Implementation

Best management practices were identified in the JURMP for the following categories of Municipal Activities/Areas and are discussed below:

- Roads, Streets, Highways, and Parking Facilities,
- Flood Management Projects and Flood Control Devices, and
- High Priority Municipal Facilities.

During this reporting period, the City prepared a map of all the municipal BMPs; this map is included as Appendix B-3.

The City has implemented a range of BMPs for municipal facilities throughout the City including



the Urban Runoff Treatment Facility located at Third and B Streets adjacent to Cottonwood Creek. This treatment facility was completed and went on-line in August 2002. The purpose of the facility is to treat bacteria in urban runoff using ultraviolet (UV) light, thereby reducing beach postings due to AB411 at Moonlight Beach. The treatment facility consists diverting 85% of Cottonwood Creek flows to a wet well and pumping it through a treatment process that consists of basket filters, multimedia filters, and two UV chambers. Bacteria in the runoff is reduced by 99% as it passes through the treatment facility and beach postings have been reduced. During the 2005-06 reporting period, the City completed the three-year monitoring plan and prepared a Final Report to the State Water Resources Control Board. This report can be found on the City's web site at http://www.ci.encinitas.ca.us/NR/rdonlyres/5612D387-D6D9-48A7-AF7F-A9D039C78547/0/Moonlight_Beach_Urban_Runoff_030806.pdf.



"Daylighted" Cottonwood Creek

During the FY2003-04 reporting period, the City implemented additional noteworthy BMPs primarily focused around the new Cottonwood Creek Park. This park is a prime example of low impact development. The post-construction BMPs that were implemented at this site include:

- daylighting 90 feet of Cottonwood Creek (using a Wetland Recovery Grant)
- use of porous pavement for all parking and driveways, and pervious walkways
- using surface drainage through earthen-bottom open channels rather than underground pipe systems
- planting of drought tolerant plants in landscaping areas

During 2005-06 this facility was operational and maintained by the City.

Roads, Streets, Beaches, Highways, and Parking Facilities

- **Street Sweeping** - During the reporting period street sweeping occurred on residential streets monthly and arterial streets weekly.
- **Parking Surface Cleaning** - Public parking lots (City Hall Civic Center, parks and beaches) were swept on a regular basis (at a minimum of monthly).
- **Litter Control** - Public Works, Partners with Industry (PWI), and county probation crews collect litter in any necessary areas based on visual observations and citizen complaints. In addition, special crews are employed to remove encampments and litter in environmentally sensitive areas.
- **Beach Clean-ups** - The City sponsors two Beach Clean Up events per year whereby an additional 100 lbs of trash are removed from the public beaches.
- **Employee Training** - The Streets Division of the Public Works Department discussed stormwater issues as regular staff meetings.
- **Storm Drain Inserts** - The City has installed a total of 47 storm drain inserts installed throughout its jurisdiction to remove debris, and oil and grease. These inserts have been installed over a period beginning in 1999 and are shown on Figure 2.1 and in Table 2-4. Nine (9) of the inserts were installed during the FY2004-05 along the heavily commercial areas along El Camino Real to treat oil and grease

City of Encinitas
FY 2005-06 JURMP Annual Report

from the roadways and parking lots. These inserts and the existing inserts were inspected, cleaned and retrofitted on a quarterly basis. Six (6) new inserts were installed in 2005-06 along Santa Fe Drive as part of a roadway improvement project. During FY 2005-06, approximately 3.2 tons of sediment and debris was removed using a vactor truck during semi-annual and quarterly maintenance performed by a specialty contractor.

Table 2-4 Storm Drain Inserts Inventory

Inlet No.	Size (Inches)	Size (Feet)	Location	Inlet Type
1	20" X 21"		SW corner of parking lot N of 876 Neptune	Grate
2	24" X 45"		In Rat Driveway Apron @ 1470 Neptune Ave.	Grate
3	24" X 41"		1638 Neptune Ave.	Combo
4	24" X 40"		AC From 1638 Neptune in grass shoulder	Grate
5		9'	1786 1/2 Highway 101	Curb
6	24" X 41"		1650 Highway 101	Grate
7	23" X 40"		Alley W of Hwy 101 50 yards. N of Jasper	Grate
8	24" X 41"		Alley W of 101, Behind 918 N. 101	Grate
9	24" X 41"		Leucadia Blvd. in Park W. side of 101	Grate
10	24" X 41"		Leucadia Blvd. N of Park @ Hwy 101	Grate
11	23" X 40"		In Alley behind 828 Hwy 101	Grate
12	23" X 40"		Behind bldg. @828 Hwy 101	Grate
13	23" X 40"		Alley W of 101 @ Europa	Grate
14	23" X 40"		129 Cadmus	Grate
15	23" X 40"		149 Basil St.	Grate
16		10'	130 Basil St.	Curb
17	23" X 40"		130 Athena	Grate
18		9'	170 Athena	Curb
19	23" X 40"		577 N. Vulcan	Grate
20		4'	AC from 208 Cereus	Curb
21	23" X 40"		208 Cereus	Grate
22	23" X 40"		321 Union	Grate
23	23" X 40"		AC from 321 Union	Grate
24		7'	1150 Hwy 101	Curb
25	24" X 40"		Alley W of 2dn St @ G St.	Grate
26	36" X 64"		364 2nd St.	Grate
27		10'	Encinitas Blvd. NE Corner @ Hwy 101	Curb
28		11'	102 Encinitas Blvd.	Curb
29		7'	Santa Fe S Side 120 yards. W of I-5	Curb
30		8'	Santa Fe, N Side, 120 yards. W of I-5	Curb
31	24" X 40"		2560 Manchester	Grate
32	24" X 40"		2582 Manchester	Grate
ECR-1			Via Molena & El Camino Real	Curb
ECR-2			Mountain Vista & El Camino Real	Grate
ECR-3			El Camino Real (in front of Circuit City)	Curb
ECR-4			ECR and Garden View (east side of intersection)	Combo

Inlet No.	Size (Inches)	Size (Feet)	Location	Inlet Type
ECR-5			ECR and Garden View (southeast corner)	Curb
ECR-6			ECR and Garden View (southwester corner)	Curb
ECR-7			ECR (across from Circuit City)	Grate
ECR-8			ECR in front of Red Robin	Grate
ECR-9			ECR in front of Block Buster Video	Curb
SFW-1			Santa Fe Drive and Summit (North)	Curb
SFW-2			Santa Fe Drive and Summit (South)	Curb
SFW-3			Santa Fe Drive and Vulcan (North)	Curb
SFW-4			Santa Fe Drive and Vulcan (South)	Curb
VUL-1			Vulcan and Santa Fe (North)	Curb
VUL-1			Vulcan and Santa Fe (South)	Curb

Flood Management Projects and Flood Control Devices

Routine Maintenance - BMPs implemented for Flood Management and Flood Control Devices included the cleaning of fourteen desilting basins; Fox Point, Saxony, Ocean Cove, Encinitas Boulevard (Cottonwood Creek Park), Encinitas Ranch (Lot 12), El Camino Real/Pine Branch (Lux Canyon), Cape Sebastian (Cardiff), Piraeus/Sparta, Piraeus/Olympus, Leucadia Oaks Park, Plaza II, Town Center, Leo Mullen, and Garden View Overflow Basin detention basins.

Basins were cleaned during the dry season so that waste discharges generally do not occur. Gravel bags were utilized when necessary to retain sediment and minimize the release of sediment into the MS4. Specialty contractors were used to hand-clean environmentally sensitive areas. There are also numerous vegetated swale and channels throughout the City that are maintained by the public works program. Public Works NPDES crews removed 652 tons of sediment and 14,734 30-gallon bags of litter from the detention basins, channels, and right-of-ways. Emergency maintenance was



performed in Cottonwood Creek west of B Street because of a potential sewer line break and road failure due to creek bank erosion and at Cottonwood Creek Park. The maintenance of the pond at the park included removal of approximately 125 pounds of debris.



La Costa basin looking
n/c @ overflow pipe

8/17/2005

The City maintains the drainage channel along Highway 101 and La Costa Avenue at Ponto State Beach. The project was completed in response to the Leucadia Drainage Plan and also to improve water quality along Highway 101 prior to discharge into Batiquitos Lagoon. The project has been deemed a success according to the Wetlands specialist overseeing the project.

In addition, this year the City constructed the La Costa detention basin just north of La Costa Avenue and east of Saxony (see photo on previous page). This area was frequently inundated by sediment that discharged onto La Costa Avenue from the canyon to the south. The purpose of the detention basin is to control sediment for flooding the road and discharging into Batiquitos Lagoon. This detention basin will be maintained by the City Public Works Department.

Regional Channel Maintenance Workgroup – The City of Encinitas has been an active participant in the Regional Channel Maintenance Workgroup with staff from the Engineering and Public Works Departments providing information and collaboration. This workgroup was formed as a result of a Directive Regarding Channel Maintenance Activities letter from the Regional Water Quality Control Board in 2004. The RWQCB planned to determine if a region-wide, jurisdictional-specific, or project-specific permitting approach would be necessary and appropriate for maintenance activities. The Workgroup, comprised of San Diego County jurisdictions, continued to meet during the reporting period and discussed ways to collaborate on a region-wide permitting approach so cities may perform necessary channel maintenance and flood control work. The Workgroup supports a regional permit in accordance with all applicable agencies to allow channel maintenance, and would like to collaborate with the Regional Board on the proposed channel maintenance permit. During the current reporting period, the City contributed \$3,450 to the City of Poway to hire a consultant in an attempt to streamline the permitting process for channel maintenance.

Municipal Facilities

High Priority Municipal Facilities – During the reporting period, BMPs were implemented at high priority municipal facilities in accordance with their SWPPPs. BMPs that were implemented included:

- good housekeeping practices were followed,
- proper operation and maintenance of equipment and vehicles occurred,
- hazardous waste and chemicals were properly stored (secondary containment for waste oil and fuel),
- MSDS inventories of hazardous and non-hazardous materials were updated,
- preventative maintenance was performed (fleet vehicles are inspected and maintained annually),
- spill prevention and response procedures were followed and updated, vehicle and equipment maintenance was performed indoors at the Fleet Maintenance Facility,
- vehicles were washed at an off-site carwash that recycles and treats (using a clarifier) their wash water and large equipment was washed at the San Elijo JPA facility where wash water is directed to the treatment plant headwaters,
- loading and unloading of materials was performed in designated areas with containment BMPs in place (berms or overhead coverage),
- facility and grounds maintenance was performed to clear litter and debris, public areas were dry swept and storm drain inlets, culverts and swales were kept clean and free from debris,
- landscape waste was collected and properly disposed of or temporarily stored in designated areas at the Requeza Maintenance Yard,
- native vegetation was used wherever possible (e.g. Leucadia Boulevard widening and beautification project),
- pesticide, herbicide, and fertilizer application and handling was performed in accordance with applicable federal, and state laws (Federal Pesticide, Fungicide, and Rodenticide Act and California Title 3, Division 6, Pesticide and Pest Control

- Operations) and all employees who handled pesticides received appropriate training, and
- employees received stormwater training as part of their “tailgate” safety meetings, staff meetings, and one-on-one education with supervisors and stormwater staff.

Medium and Low Priority Municipal Facilities – During the reporting period, BMPs were implemented at medium and low priority municipal facilities in accordance with their SWPPPs. BMPs that were implemented included:

- good housekeeping practices were followed,
- recycling/trash receptacles were placed at beach parks and bus stops
- employees received stormwater training as part of their “tailgate” safety meetings, staff meetings, and one-on-one education with supervisors and stormwater staff.
- hazardous waste and chemicals were properly stored (secondary containment for waste oil and fuel),
- facility and grounds maintenance was performed to clear litter and debris, public areas were dry swept and storm drain inlets, culverts and swales were kept clean and free from debris, and
- native vegetation was used wherever possible (e.g. Cottonwood Creek Park project).

2.1.4 Maintenance of MS4

MS4 maintenance activities in Encinitas are divided into above ground and below ground. Activities performed during the reporting period for these two categories are discussed below.

Above Ground Maintenance

Above ground maintenance includes the removal of sediment, litter, and debris from publicly owned creeks, rock lined channels, concrete channels, brow ditches, de-silting basins, and detention basins. Most of the maintenance is performed by the City’s Public Works Department or outside crews that they supervise, such as probation crews and PWI.

Routine inspection and cleaning of concrete-lined facilities was performed in accordance to the schedule established in the JURMP. An automated NPDES Work Order Program was used to record and direct day-to-day efforts of the crews. The forms are digitally connected to a database for record keeping purposes.

As presented in Section 2.1.3- Flood Management Projects and Flood Control Devices, 652 tons of sediment, vegetation and debris were removed from the aboveground MS4 during this reporting period. In accordance with the JURMP, above ground, non-emergency maintenance (channels, creeks, brow ditches, desilting basins, and detention basins) was performed during the dry season when the facilities to be maintained are dry and waste discharges generally do not occur. To reduce the potential for pollutants from reaching any receiving water body, crews utilize BMPs (mainly gravel bags) when there was a potential for discharge of waste or debris. For example, gravel bags may be used to retain sediment and debris, allowing settling prior to discharges reaching receiving waters. Sediment from the MS4 was transported to the Requeza Public Works Facility and stored prior to disposal by the local waste disposal contractor, EDCO.

Maintenance, such as sediment removal, in environmentally sensitive areas, such as those classified as wetlands, is generally avoided.

Environmentally Sensitive Areas

Litter and debris is removed by hand in environmentally sensitive areas of the MS4 by a specialty contractor. Often these cleanup efforts involve removal of illegal encampments and cleaning of the Cottonwood Creek pond. During this reporting period 1.9 tons of debris was removed from these areas. Table 2.5 shows a summary of these cleanup events.

Table 2.5: Summary of Environmentally Sensitive Area Debris Removal (Can-Do Maintenance)

Date	Location	Quantity of Debris Removed (lbs)
11/04/05	I-5 /Encinitas Blvd./Del Taco	2,800 lbs. of debris
1-1-06 – 6/20/06	Cottonwood Creek Pond 96" Drain	900 lbs. of debris
	TOTAL	3,700 lbs (1.9 tons)

Below Ground Maintenance

Between May 1 and September 30 of the reporting year, the City inspected and cleaned all known inlets and under curb drains in the MS4. Additional cleaning was performed between October 1 and April 30, if necessary. For inspection and maintenance purposes, the City is divided into ten areas. Maintenance crews routinely begin in the northernmost area and work their way south. The below ground maintenance program consisted primarily of inspecting all of the underground facilities and removing accumulated debris in inlets, catch basins, and under-curb drains. Cleaning was performed using a combination vacuor (Vaccon) truck that utilizes a water recovery and vacuum unit so that disturbed sediment and debris is fully captured and can be disposed of properly according to its degree of contamination.

Approximately 107 tons of debris was removed from the underground portion of the MS4 this year. Debris removed was transported to the San Elijo Public Works Yard. The debris is disposed of regularly by the San Elijo Water Reclamation Facility along with their facility grit.

In addition, 3.2 tons of debris and sediment was removed from the City's storm drain inserts by an outside contractor.

2.1.5 Management of Pesticides, Herbicides, and Fertilizers

Public Works Department

The Public Works Department is responsible for maintaining public streets and right-of-ways, including channels and detention basins. Several techniques were employed to minimize the use of pesticides, herbicides and fertilizers, including:

- Mulching and mowing to control weeds rather than applying herbicides.
- Restricting use of pesticides in channels.
- Where herbicides are required in channels, aquatic herbicides, such as Aquamaster was used.
- Required all employees using chemicals to be licensed applicators.

In addition, the State Department of Pesticide Regulation inspects all procedures and products used by the Public Works Department for maintenance of channels and rights-of-ways annually.

Parks and Recreation Department

The City of Encinitas Parks and Recreation Department has prepared and adopted a Policy and Procedures Manual for integrated pest management (see Appendix B-5). The Department began implementing this program during this reporting period. Implementation of the policy included:

- educating and training of staff and contractors on the policy,
- implementing a process of identifying pests and/or problems by site,
- monitoring and record keeping,
- establishing thresholds for pest problems,
- selecting a less toxic treatment, and
- evaluating the success of the treatment.

2.2 Summary of Inspections

Storm water staff performs annual inspections at all of the high priority municipal facilities in the City of Encinitas. Facility inspection locations and inspection dates are summarized in Table 2.6 below.

Table 2.6 Municipal Facility Inspections

Municipal Facility	Inspection Date
Orpheus Ave. – Fleet Maintenance Facility	5/18/06
Pacific View Yard (Temporary)	5/18/06
Requeza Street PW Facility	5/18/06
San Elijo Wastewater Division PW Facility	6/12/06
“A” Tank Site	5/18/06

The Best Management Practices recommended are summarized in the inspection reports included in Appendix B-6 and have been implemented by the Public Works Department.

2.2.1 Fleet Maintenance

No violations were noted. The following BMPs were recommended (follow-up was not deemed necessary):

- Provide secondary containment for 55-gallon used oil storage drum (coverage already provided).

2.2.2 Pacific View Yard (Temporary)

No violations were noted. The following BMPs were recommended (follow-up was not deemed necessary):

- Protect storm drain inlet during vehicle washing even though storm drains are plugged and water is reclaimed.

2.2.3 Requeza Street Facility

No violations were noted. The following BMPs were recommended (follow-up was performed to verify compliance on 5/26/06):

- Properly dispose of and/or store hazardous materials and waste

2.2.4 San Elijo Water Pollution Control Facility (PW Yard)

No violations were noted. The following BMPs were recommended (follow-up was not deemed necessary):

- Properly store/dispose of hydraulic fluids
- Spill kits should be readily accessible
- Maintain drip pans
- Train and educate employees on storm water management.

2.2.5 “A” Tank Site

No violations were noted. The following BMPs were recommended (follow-up was performed to verify compliance on 5/26/06):

- Properly dispose of and/or store hazardous materials and waste

2.3 Compliance and Enforcement Actions

Activities performed in the operation and maintenance of municipal areas complies with all federal, state and local regulations, specifically the City’s Stormwater Management Ordinance. The City Manager is the appointing authority for all department heads and uses this authority to ensure that the City complies with all laws.

2.4 Revisions to JURMP

No JURMP revisions were made during the reporting period.

3.0 INDUSTRIAL (EXISTING DEVELOPMENT) COMPONENT

3.1 Description of Activities

3.1.1 Pollution Prevention

Industrial facilities within Encinitas were required to operate in accordance with their current SWPPP and appropriate local ordinance during the reporting period. The San Dieguito Union High School District (SDUHSD) and San Elijo Joint Powers Authority (JPA) both operated under their SWPPPs and the Encinitas landfill operates under the County of San Diego Stormwater Ordinance 9518. All facilities operate under the City of Encinitas Stormwater Ordinance (EMC 20.08). The SWPPPs and ordinances require pollution prevention BMPs to be implemented. Pollution prevention BMP requirements were communicated to facilities on a one-on-one basis during site inspections as described in Section 3.2.

3.1.2 Source Identification and Priorities (Inventory)

Three industrial facilities are located in the City of Encinitas. All three facilities are covered under the State General Industrial Permit. The industrial inventory is included as Appendix C-1. Inspection forms for each industrial facility are located in Appendix C-2.

The San Elijo JPA-Water Reclamation Facility is a wastewater treatment plant located at 2695 Manchester Avenue. The plant treats approximately 5.25 million gallons of raw sewage per day. The second industrial facility in the City of Encinitas is the SDUHSD-Transportation Cooperative. The facility is located at 1142 Bonita Drive and functions as the maintenance shop for the SDUHSD bus fleet as well as the parking area for the buses. The third industrial facility located is the Encinitas Landfill, owned and operated by the County of San Diego. This facility is located at 2099 Encinitas Boulevard and is now closed.

3.1.3 BMP Implementation

The two sites inspected by the Clean Water Program implement BMPs as required by their individual SWPPPs. These BMPs were found to be appropriately implemented at each facility as noted in the individual inspection reports, located in Appendix C-2.

BMPs have been implemented by the County of San Diego at the County Landfill in accordance with County Codes and the Encinitas Municipal Code.

3.1.4 Monitoring of Industrial Sites

In addition to the annual inspections performed by Clean Water Program staff, monitoring is performed on an on-going basis at each facility. The director at the SDUHSD-Transportation Cooperative is responsible for ensuring year round compliance with the facility's SWPPP. At the San Elijo JPA-Water Reclamation Facility, the Assistant General Manager is responsible for ensuring compliance with all SWPPP requirements. Each responsible person monitors their facilities throughout the year, performing inspections and required water quality monitoring of the sites. City Staff reviewed data collected for each facility during the annual inspections. The data suggested that runoff sampled at each facility contained no significant pollutant loads over the past year. In the past, where problems/discharges were detected, the facilities implemented BMPs to reduce the pollutants in the stormwater.

3.2 Summary of Inspections

Clean Water Program staff for the City of Encinitas performed the annual inspection for the San Elijo JPA-Water Reclamation Facility on May 17, 2006. The Assistant General Manager was present for the inspection. Overall, the San Elijo JPA Water Reclamation Facility was clean and orderly. Clean Water Program staff recommended better management of outdoor materials storage of unused or unwanted spare parts and properly disposing of wooden palettes located in the waste containment area. San Elijo JPA staff is aware of current stormwater regulations and keeps a constant watch for storm water concerns at this facility. In addition to the inspection conducted by the City of Encinitas, San Elijo JPA staff conducts quarterly storm water inspections at the plant, as required under the facility's general industrial permit.

Inspection of the SDUHSD Transportation Cooperative was performed on Jan 11, 2006. The Director of the Cooperative accompanied City staff during the inspection. Clean Water Program staff recommended the following corrective actions: proper storage of all hazardous materials, replacement or cleaning storm drain filters at storm drains and replacement of straw rolls along the bus yard slopes to prevent erosion. Overall, the SDUHSD Transportation Cooperative was clean and orderly.

The Encinitas Landfill, which is closed and owned and operated by the County of San Diego, was inspected by the County of San Diego Department of Environmental Health. The landfill BMP requirements, as outlined in the County's Stormwater Ordinance 9518, are compatible with the City of Encinitas BMP requirements in outlined in EMC 20.08 and Best Management Practices Manual, Part I, Commercial/Industrial BMP Requirements. The County's landfill inspection form has also been reviewed and found to be compatible with the City of Encinitas' Facility Inspection Report. Therefore, the City believes that inspections performed by the County are adequate and extra resources expended by the City would be redundant and should be spent on other compliance issues.

Table 3.1 summarizes the inspections performed for the industrial section of the program.

Table 3.1 Summary of Industrial Inspections FY 2005-06

Date	Facility	Address
5/04/06	Encinitas Landfill	2099 Encinitas Boulevard
5/17/2006	San Elijo Water Pollution Control Facility	2695 Manchester Avenue
1/11/2006	San Dieguito Union High School District Transportation Cooperative	1142 Bonita Drive

3.3 Compliance and Enforcement Actions

No enforcement actions were necessary for either of the industrial facilities inspected by the City of Encinitas Clean Water Program. All individual facility inspection reports are located in Appendix C-2. Each facility was in compliance with their individual SWPPPs as well as all applicable regulations, including EMC 20.08.

3.4 Revisions to JURMP

There are no revisions to the JURMP to report.

4.0 COMMERCIAL (EXISTING DEVELOPMENT) COMPONENT

The City of Encinitas commercial stormwater programs' goals are to educate and assist commercial establishments in eliminating non-stormwater discharges from their site and to reduce the amount of pollutants contained in stormwater runoff from their property. These goals are met through establishment of minimum BMPs, inspections and enforcement.

4.1 Description of Activities

4.1.1 Pollution Prevention BMPs

Commercial facilities within Encinitas are required to implement pollution prevention BMPs outlined in the City's JURMP. The City focuses on educating businesses about pollution prevention, water quality issues, and their responsibilities under current regulations, including federal, state, and local. Pollution prevention principles that the City encourages among commercial businesses include:

- Eliminate wastewater flows
- Maintain trash areas clean and dispose of wastes properly
- Maintain grease removal devices at restaurants
- Keep storage containers covered
- Change production processes to reduce waste
- Recycle wastes as part of the production process (most preferred), off site or on site (least preferred)
- Use smaller quantities of toxic materials or substitute less-toxic materials
- Obtain spill kits and make them accessible to all employees
- Properly train all employees in Stormwater management and maintain a training log

Pollution prevention BMP requirements are communicated to facilities on a one-on-one basis during site inspections and in literature presented to site representatives.

4.1.2 Source Identification and Prioritization (Inventory)

The commercial inventory is continually updated as facilities go out of business and new facilities are opened. Records are kept in an electronic database as well as hardcopy format. The total number of commercial high priority facilities during the FY 2005-06 reporting period is 403. A review/audit of all restaurant and automotive facilities in the commercial database inventory was performed during the reporting period. As a result of the review/audit, 199 restaurants and 63 automotive facilities were identified as high priority commercial facilities. The City has also identified 97 nurseries, 12 landscaping companies, 10 pool businesses, six (6) painting businesses, five (5) animal facilities, three (3) mobile businesses, three (3) masonry businesses, three (3) building material businesses, one (1) golf course and one (1) botanical garden in its commercial inventory. It should be noted that commercial facilities/businesses in the city are dynamic with changes happening often. This is particularly true of the nurseries. Since last year, 63 nurseries have gone out of business, many of them converting their properties into residential developments. A copy of the updated inventory is included in Appendix D-1.

4.1.3 BMP Implementation

Commercial facilities are required to implement BMPs as outlined in the JURMP. These consist of nonstructural and structural BMPs depending on the activities conducted at the facility. The BMPs are outlined in the City's Best Management Practices Manual and Stormwater Ordinance, Encinitas Municipal Code Section 20.08. The BMP Manual is available to the public on the City's website at <http://cwp.ci.encinitas.ca.us>. The Engineering Services Department counter staff refers the public to this document regularly for guidance as to required minimum BMPs for commercial establishments, as well as for other activities regulated by the City's Stormwater Ordinance.

During each storm water quality inspection and complaint investigation, educational materials are provided. The City has continued to educate facility owners and employees during the inspection process and provide additional BMP information as needed.

4.2 Summary of Inspections

Inspections of commercial facilities were divided into the following two categories; complaint driven inspections and routine facility inspections. Complaint inspections are those in response to a call on the Stormwater Hotline or staff observation. When the City receives a complaint regarding a commercial facility, an initial site visit is conducted. If the complaint is legitimate, the inspector addresses the immediate complaint/discharge and recommends corrective action or executes enforcement action and a complaint inspection is recorded for that visit. In some instances, follow-up inspections are required to verify that compliance has been met. In addition to a complaint inspection investigation, if it is determined that the facility has not been inspected recently, (approximately two years); the inspector makes an appointment to conduct a full routine facility inspection and completes a Storm Water Quality Inspection Form during the inspection. Additional recommendations and enforcement action may result from these inspections that are not necessarily related to the initial complaint.

Routine facility inspections can be initiated as a result of a complaint inspection or as part of a regular schedule of inspections.

In FY 2005-06, a total of 158 Commercial inspections were performed during the reporting period. There were a total of 62 commercial complaints which yielded 60 complaint inspections. Of those 60 complaint inspections, nine (9) complaints required no further action, 12 were referred for a full routine facility inspections while another 10 complaints required secondary or follow-up complaint inspection to verify that compliance had been met. Additionally, there was a total of 66 routine facility inspections conducted in the reporting period which also required a follow-up inspection for one third of all facilities inspected or 22 facilities. See Table 4.1 for a brief summary of all inspections and Appendix D-2 for a detailed summary of the routine inspections which include all of the recommended corrective actions for each facility.

Table 4.1 Summary of Commercial Inspections FY 05-06

Type of Commercial Establishment	Complaint Inspections	Follow-Up Complaint Inspections	Routine Inspections	Follow-Up Routine Inspections	Total
Restaurants	19	5	53	18	97
Nursery/Grower	6	1	7	1	15
Auto Shops/Gas Stations	4	2	3	2	12
Grocery Stores	2	2	2	1	7
Golf Course	0	0	1	0	1
Other (mobile businesses, contractors, commercial properties, etc.)	29	0	0	0	29
Total	60	10	66	22	158

4.2.1 Routine Inspections

The City conducted a total of 66 routine facility commercial inspections with one third of those facilities or 22 requiring a follow-up inspection to verify that compliance had been met. Of the 66 inspections and 22 follow-up inspections, two restaurants received NOV's for failure to comply with the City's Storm Water Ordinances.

The City continued to utilize the Storm Water Quality Commercial Inspection Access Database for tracking annual routine, follow-up, and complaint investigations for commercial establishments that was established in the FY 2004-05 reporting period. The database contains several categories to describe each facility and contains all of the data that is collected from the four-page Storm Water Quality Inspection form (Appendix D-4). A hardcopy of completed inspection forms are kept in a binder as well as electronically in the database. A procedural manual was written and delineates procedure for viewing different queries, entering, deleting, or changing facility or inspection information. Please see Appendix D-3 for a copy of the procedural manual.

During the FY 2005-06, reporting period, the City developed an important element for the commercial program; a centralized Geographic Information System (GIS) based work order management application for storm water complaints, investigations, and inspections using Azteca Cityworks software. The system is capable of displaying, on a map, storm water assets such as storm drains, inlets, and outlets as well as creating and displaying open and closed service requests and work orders. In addition, the system is capable of being queried to find historical complaints or inspections at any location. Reports can be produced to document all storm water related complaints and inspections for any given time period. Although the software and an accompanying user manual was not deployed until the beginning of FY 2006-07, the GIS system was designed throughout FY 2005-06. A detailed description of this program is presented in the Municipal Component on page 2-3.

The Storm Water Quality Inspection form was updated to include the City's storm water hotline number and the City's storm water website information (top of page 1), contact information for property managers (page 1, section A) and grease renderers (page 3, section D.5.2 and D.7), a check list of distributed educational/BMP materials (section F), a blank section for documenting required City actions (section H), decision course for follow-up actions and a date by which follow-ups will be completed (section I). Lastly, an assessment questionnaire was added to evaluate the level of storm water knowledge and level of BMP implementation of each facility (bottom of page 4). A copy of the inspection forms used during the commercial inspections is contained in Appendix D-4.

City of Encinitas
FY 2005-06 JURMP Annual Report

The primary inspection categories and the findings of the inspections during 2005-06 are presented below.

SIC Codes

During each inspection the inspector requested the business license to verify each business had the appropriate SIC code.

Grease Traps

New construction and remodel of existing restaurants require interceptors or grease traps to be installed that meet current sizing requirements. As these facilities are brought up to code and the number of grease removal devices through out the city increases, bacteria loads from SSO to the MS4 should be reduced. The process is ongoing. In the reporting period it was noted that many restaurants are in compliance and keeping records for the cleaning of the grease interceptors. A cleaning log was distributed to these facilities, to make their record keeping easier. The presentation of a log or the receipts from a pumping company helps determine compliance and is requested during inspections. In FY 2005-06, three new grease interceptors were installed at new or improved restaurants.

Stormwater Management Training

During site inspections, inspectors handed out educational stormwater management pamphlets and required businesses to train their employees annually and keep written records of when training occurs and who has received it. Follow-up compliance for the required training will be made on future inspections in FY 2006-07.

The Green Business Program operated by the County of San Diego presented a Green Business Restaurant Workshop in the City of Encinitas on May 16, 2006. City of Encinitas Clean Water Program staff participated by presenting on storm water requirements for all restaurants. A total of 159 restaurants in the City of Encinitas were invited to attend via US mail. There were 15 people that participated in the event. As a result of the low turn out, beginning in FY 2006-07, Clean Water Program Staff has begun offering storm water training to restaurants with 20 or more employees to help them satisfy their training requirement for the year.

Secondary Containment

The City issues Notices of Violation (NOV) related to the storage and containment of oil recycling containers. Each business must provide over-head coverage and an overflow container at the base to protect from overflows and runoff. Inspections during the current period revealed that some used cooking oil service providers replaced 55-gallon drums during each pick up. This has resulted in much cleaner storage areas and reduces the potential for stormwater pollution. However, the City requires coverage and containment of all used cooking oil storage areas.

Nurseries

Routine stormwater inspections were performed at seven nurseries in FY 2005-06. Education was provided to the facility operators and the results of their inspections were discussed on site. Many nurseries have implemented BMPs because of the City's previous educational efforts with the University of California Cooperative Extension and in most cases, additional BMPs were implemented as a result of the routine inspections.

Inspection Summary

Of the 66 routine commercial inspections, there were 66 facilities which required corrective actions. The most frequent inspection comments included directives to implement the following BMPs:

- properly train and educate all employees on storm water management and maintain a training log
- obtain spill kits and make them accessible to all employees

Other requirements included:

- properly dispose of trash
- keep trash areas clean
- ensure that trash lids remain closed
- sweep and clean up spills as they occur
- properly maintain grease traps/interceptors
- keep grease trap/interceptor maintenance records on site
- properly store and/or dispose of hazardous materials and wastes
- prohibit outdoor washing

When the City requires BMP implementation based on an inspection, a follow-up date is provided to the facility manager/owner. The City follows up with these facilities to ensure that the BMP has been properly implemented. These follow-up activities do not trigger a full facility inspection however, they do require a site visit and meeting with the facility owner/manager to verify that compliance has been met. During the FY 2005-06 reporting period, 22 follow-up inspections were performed with an additional 11 follow-up inspections occurring in early FY 2006-07 for corrective actions that were required of facilities during routine inspections near the end of FY 2005-06.

4.2.2 Complaint Driven Inspections

Clean Water Program staff maintains and answers the City's stormwater hotline. This hotline serves as a mechanism for the public to report suspected stormwater violations. Of the 150 total complaints received by the Clean Water Program in this reporting period, 62 complaints were in regards to alleged stormwater violations occurring in or at commercial facilities. Inspections were performed at 60 facilities. Approximately 32% of the total commercial complaints were received via the stormwater hotline. Table 4.2 below illustrates the distribution of complaints concerning commercial facilities in the City.

Table 4.2 Commercial Complaints Distribution FY 2005-06

Type of Commercial Establishment	Number of Complaints
Automotive	4
Eating Places	21
Nursery/Grower	6
Other (mobile businesses, contractors, commercial properties, etc.)	29
Phone Inquiries	2
Total	62

Stormwater staff investigated each of the complaints received. During the FY 2005-06, the City received 16 more commercial complaints than the previous fiscal year. The City's education and outreach efforts continue to be a contributing factor in increased awareness. The 24 hour complaint line is advertised on pencils and stormwater brochures that are distributed during outreach events. In addition, the complaint line is listed in the telephone directories as "Storm Water Pollution Hotline" under the City listings, as well as the City's website. Follow-up actions and enforcement proceedings are addressed in Section 4.3.

4.3 Summary of Enforcement Actions

During the FY 2005-06, the City received a total of 62 complaints regarding commercial facilities. However, it was determined that nine (9) of those complaints required no further action due to the fact that: a) illegal discharges were not observed b) observed discharges were determined to be legal; or c) the caller only requested educational information. The remaining complaints triggered many enforcement actions, ranging from educational actions to formal citations and cost recoveries. Table 4.3 summarizes the enforcement actions resulting from complaints received by the stormwater program.

Table 4.3 Commercial Enforcement Actions - FY 2005-06

Enforcement Category	Number of Actions
Education	16
Notice of Violation	28
Citation	6
Cost Recovery	3
Total	53

Table 4.4 summarizes the Notices of Violation/Citations and their causes. Most were issued as a result of an illegal discharge.

Table 4.4 Causes of Notices of Violations at Commercial Facilities - FY 2005-06

Violation	Number of Occurrences
Tailwater/Sediment discharge	0
Power washing	4
Sewer discharge/Illegal connection	1
Wash water	13
Other	10

Table 4.5 Causes of Citations at Commercial Facilities - FY 2005-06

Date	Code Violation	Violation Description	Fine	Cost Recovery	Category
8/22/05	20.08.040	Illegal discharge of concrete wash water	\$100.00	\$0	Commercial
10/20/05	20.08.040	Illegal discharge of wash water	\$100.00	\$0	Commercial
11/18/05	20.08.040	Illegal discharge of grease and wash water	\$100.00	\$1,170.53	Commercial
11/18/05	20.08.040	Illegal discharge of grease and wash water	\$100.00	\$390.17	Commercial
6/10/06	20.08.040	Illegal discharge of wash water, food and trash debris	\$100.00	\$0	Commercial
6/27/06	20.08.040	Illegal discharge of antifreeze	\$0	\$353.03	Commercial

4.4 Revisions to JURMP

No JURMP revisions are planned for this component.

5.0 RESIDENTIAL (EXISTING DEVELOPMENT) COMPONENT

The overall goal of the existing residential areas element is to minimize the impact of discharges from residential areas on receiving waters in Encinitas and, where possible, to enhance the quality of these resources. The implementation of this element overlaps into almost all departments within the City. The primary responsibility for disseminating information and coordination is with the Clean Water Program Staff in the Engineering Services Department.

5.1 Pollution Prevention

The City's residential pollution prevention program consists of encouraging residents to minimize the amount of pollutants they generate and therefore need to dispose of. It also includes providing acceptable and alternative methods of disposal of typical wastes generated by residential activities. An important component of this effort is educating residents about the effect of poor pollution prevention habits on the environment and water quality. Residential public education and outreach is discussed in Section 9.2.3 (Education) of this report. Following is a description of the pollution prevention activities that are employed at the City of Encinitas for residents.

(a) Household Hazardous Waste – In accordance with the California Integrated Waste Management Act (AB939) in 1989, the City provides Household Hazardous Waste (HHW) collection programs to residents to limit the volume of household hazardous waste going into the waste stream, being dumped into the environment and being deposited in landfills. Household hazardous waste includes, but is not limited to, household cleaners, used oil and fuel additives, paint and paint thinners, pesticides, pool chemicals and electronic waste.

Several options are provided to residents for the proper disposal and recycling of household hazardous waste. These include door-to-door home collection, two permanent collection facilities located in the cities of Vista and Poway and periodic temporary collection events. The City encourages residents to use these services through advertising on the City website, billing inserts, newsletters and at public events. Table 5.1 shows the amount of household hazardous waste collected from residents in Encinitas during this reporting period.

Table 5.1 Household Hazardous Waste Volumes Collected (FY 2005 – 06)

No.	Material Type	Description	PHHWCF Weight (in pounds)		Door-to-Door Program Weight (in pounds)	
			Region	Encinitas	Region	Encinitas
1.	Flammable & Poison	Flammable solid/liquid	79,750	6,904	16,100	7,520
		Bulked flammable liquids	62,100	5,376	0	0
		Oil-base paint	71,600	6,198	9,000	4,204
		Poison (excl. aerosols)	31,800	2,753	14,575	6,808
		Reactive and explosive	0	0	0	0
		Subtotal	245,250	21,231	39,675	18,532
2.	Acid	Inorganic & Organic acid	6,970	603	2,110	986
3.	Base	Inorganic & Organic base	5,250	454	2,005	936
4.	Oxidizer	Neutral oxidizers, Organic peroxides	1,850	160	0	0
		Oxidizing acid, Oxidizing base	0	0	0	0

**City of Encinitas
FY 2005-06 JURMP Annual Report**

No.	Material Type	Description	PHHWCF Weight (in pounds)		Door-to-Door Program Weight (in pounds)	
			Region	Encinitas	Region	Encinitas
		Subtotal	1,850	160	0	0
5.	PCB-containing	PCB-containing paint	0	0	0	0
		Other PCB waste	45	4	0	0
		Subtotal	45	4	0	0
6.	Aerosol	Corrosive aerosols			0	0
		Flammable aerosols			7,640	3,569
		Poison aerosols			0	0
		Subtotal			7,640	3,569
7.	Reclaimable	Antifreeze	10,159	879	750	350
		Car batteries	31,500	2,727	120	56
		Fluorescent bulbs	0	0	0	0
		Latex paint	214,000	18,526	117,950	55,093
		Motor oil/oil products	45,136	3,907	750	350
		Oil filters	2,150	186	0	0
		Subtotal	302,945	26,225	119,570	55,849
8.	Asbestos		2,900	251	0	0
9.	Universal Waste (UW)	Mercury containing waste	20	2	*	*
		Thermostats/switches/thermometers	30	3		
		Lamps	1,570	136		
		Household batteries	4,275	370		
		Subtotal	5,895	511		
	Electronic Waste (UW)	SB20/50 video display devices	57,269	4,958	*	*
		Non SB20/50 video display devices	23,606	2,044		
		Consumer electronic devices	54,021	4,677		
		Subtotal	134,896	11,679		
	Aerosol Containers (UW)	Non-empty aerosol containers	18,250	1,580	*	*
		Other	0	0		
		All UW subtotal	159,041	13,770		
10.	Other HHW	Home-generated sharps	0	0		
		Compressed gas cylinder	3,410	295		
		Photo waste (silver bearing)	0	0		
		Treated Wood	2,400	208		
		Other	40,783	3,531	16,475	7,695
		Subtotal	46,593	4,034		
11.	Grand Total		770,844	48,156	187,475	87,567

* Universal Waste collection services are provided, however, these materials are consolidated and shipped to the Vista facility and detailed data is not provided.

(b) Trash and Recycling Services - In the City of Encinitas, for public health purposes, the collection of solid waste is a mandatory service. All residents and businesses are liable for

payment of fees for the mandatory service (reference 11.20.010, paragraph A of the Municipal Code). Residential service includes curbside green waste collection and recyclable materials collection. The City of Encinitas has an exclusive franchise agreement with EDCO Waste Recycling Services to provide solid waste collection services in Encinitas for both residential and commercial customers. Table 5.2 provides a summary of waste diverted by the franchise hauler during the 2005 calendar year.

Table 5.2 Trash and Recycling Collected (Diverted) (FY 2005).

TYPE	GREENWASTE (tons)	RECYCLING (tons)	TOTAL DIVERTED (tons)
Residential	11,467	17,800	29,267
Commercial	839	7,688	8,527
Roll Off	119	100	219
TOTAL			<u>38,013</u>

The City of Encinitas is dedicated to reducing the amount of waste that enters our landfills. The City goal is to divert 50% of the waste generated in the City. During the 2004-05 reporting period, the City completed implementation of a program to replace the residential small multiple curbside recycling bins with one large mixed recycling bin. It is estimated that there has been an increase in recycling. The City of Encinitas diverted 55% of its debris from landfills in 2004. This is up from 48% in 2003, prior to implementation of the program.

In the past the City has also co-sponsored an annual Encinitas Community Clean-up Day on with EDCO. Residents were allowed to bring bulky household debris to a local drop off point at Moonlight Beach parking lot to be disposed at no cost. For the events, City staff has assisted EDCO with promotion, setup, traffic control, materials sorting, loading roll-off bins with front end loaders and post-event cleanup. Prior to 2005, the event had been held at the Moonlight Beach parking lot. Due to increasing participation and limited space available, the event was moved to Mira Costa College in January 2005.

Staff has been working with EDCO to improve the bulky item collection for Encinitas residents. Beginning on March 15, 2006 the City, rather than hosting a single-day bulky item collection event, began a "Self-Haul Coupon Program" consisting of the following:

- Once a year, EDCO mails a coupon to residential customers for the self-haul event. The coupon will be valid for a six-month period. This year's coupons were valid from March 15 through September 15.
- EDCO made arrangements with the Palomar Transfer Station (located at 5960 El Camino Real in Carlsbad) to allow Encinitas residents to bring one free load of trash/bulky items/yard waste (can be a carload or truckload) to the transfer station.
- Residents presented a photo I.D. and the coupon showing customer's name/address at the transfer station.
- The program is for residential customers only. Commercial loads will be charged a fee.

Benefits of the new program include:

- **Flexibility** – Residents will be able to dispose of their bulky items and other residential waste at their convenience. They can choose to go any weekend over a

six-month period. The larger time window will be particularly convenient for residents who are moving during the year or are unable to make it to a single-day event.

- **Longer hours** – The transfer station is open from 7:30 to 4:00 on weekends, compared to single day event hours of 8:00 to 2:00.
- **Site locations** – The lack of a suitable site on City-owned property requires us to rely on outside agencies (Mira Costa College, school districts, etc.) for scheduling single-day collections. It is not certain that facilities will be available each year.
- **Logistics/Fiscal Impact** – The City will realize a savings in costs for event management, setup, traffic control, materials handling and cleanup.

Over the first six months of the program (March – September, 2006), 1,274 residents participated in the program representing a 27% increase from the participation in the single-day cleanup event. Based on the vehicle averages at the Community Clean-up day (350 pounds per vehicle based on eight years of data), this program resulted in the disposal of 223 tons of residential waste.

- (c) **Used Oil Recycling Program** - The City has a used oil recycling program that consists of a network of certified automotive waste recycling centers throughout the city, permanent Household Hazardous Waste collection facilities and door-to-door collection. These facilities accept a range of used products including used oil, oil filters, auto batteries and antifreeze. A big part of this program is the dissemination of educational information regarding the benefits of, and opportunities for, pollution prevention. This program is specifically for the residents of Encinitas and is funded through solid waste fees and grants from the California Integrated Waste Management Board (CIWMB). The location of the participating oil recycling sites is provided in all oil recycling printed material and on the City's website. Table 5.3 provides a summary of the City's used oil recycling program. A discussion of the door-to-door program follows.

Table 5.3 Certified Used Oil Collection Centers Data and Summary

Period	Quantity of Oil (Gallons)	Quantity of Filters (# of Filters)	Collection Type
July 2005 – June 2006	79,943	2,366	Certified Centers
July 2005 – June 2006	518	140	Permanent HHW Centers
July 2005 – June 2006	59	N/A	Door-to-Door

Door-to-Door HHW collection services offered to residents include used oil and oil filter collection. However, most residents are accustomed to taking their used oil and oil filters to the certified centers and the permanent HHW facilities and use the door to door service primarily for paints and other HHW.

- (d) **Sanitary Sewer System Maintenance** – Sanitary sewer service is provided by two agencies. Generally, the northern portion of the City is serviced by the Leucadia Wastewater District and the southern and eastern portions are serviced by the City of Encinitas. These agencies provide operation and maintenance services involving cleaning sewer lines, clearing stoppages, repairing breaks on a routine basis and responding to emergencies as needed. Sewage is delivered for treatment and disposal to either the Encina Wastewater Authority in Carlsbad or to the San Elijo Water Reclamation Facility in Cardiff. Special precaution is taken at facilities adjacent to sensitive areas to prevent sewer

spills. These include pump and pipeline redundancy and emergency generators to ensure that service is uninterrupted during an emergency.

(e) Storm Drain Stenciling – The City’s Public Works Department has implemented a program to stencil all municipal storm drain inlets. Two types of stenciling are used; the first is an adhesive label which says “No Dumping, Drains to Ocean”, the second is a painted stencil has a diagram of a duck and says “No Dumping, I Live Downstream”.

(f) Pollution Prevention Materials – The City has developed and distributed printed materials to encourage residential reduce or eliminate the generation of pollutants. The activities that have been implemented during this reporting period include:

- Distributed brochures (developed in FY2002-03) for residents to learn pollution prevention methods (Appendix E-1);
 - Automotive - Simple Things to Keep Our Waterways Clean to reduce vehicle fluids spills through proper maintenance;
 - Yard & Garden Care - Keeping Your Yard & Garden Beautiful and our Waterways Clean;
 - Diazinon - How It Affects Your Health, Your Family and the Environment, and
 - Hiring a Handy Man - Easy Instructions for the Homeowner.
- Distributed IPM PRISM Grant information that we distributed this year, including “tip cards”, brochures and posters.

5.2 Best Management Practice (BMP) Implementation

BMPs targeted at the general population and residential areas are implemented on two levels; Jurisdictional BMPs and residential BMPs. Jurisdictional BMPs are structural BMPs that have been implemented by the City or have been required to be implemented by the City. These are typically installed as part of the SUSMP program during development of a property. Residential BMPs are non-structural BMPs targeted at reducing pollutant generating activities or minimizing the effects of these activities on urban runoff water quality. This section provides a description of these BMPs.

5.2.1 Jurisdictional BMPs

The City has a strong General Plan that works to protect water quality and open space, including riparian and wetland areas. Because of this, over the past ten years, several jurisdictional BMPs have been implemented by the City or required to be implemented throughout the City as part of new development and significant redevelopment. The goal of these projects is to improve the water quality of adjacent receiving waters. These jurisdictional BMPs generally include detention basins, storm drain inserts, daylighting of a section of Cottonwood Creek, low-flow channels, and the Moonlight UV Treatment Facility. These facilities are discussed in more detail in Section 2.1.3. The detention basins are shown in Table 5-5 and on the Encinitas BMP Map, Appendix B-3. They are broken into sub-watersheds beginning in the north and moving south.

Table 5-4 Summary of Jurisdictional BMPs

Sub-basin Served	Project Name/ Location	Purpose of BMP	Description of BMP
Leucadia	Leucadia Drainage Outfall Basin at Hwy 101 and La Costa Blvd. (Ponto Beach)	Sediment removal	Detention basin.
New Encinitas	Three basins along the El Camino Real channel at Garden View, Leo Mullen baseball field, and Town Center	Low-flow and first-flush pollutant Removal	Pollution basin designed to remove pollutants from low flows
New Encinitas	Encinitas Creek Riparian Area along Encinitas Creek from Garden View to Leucadia Blvd. (City Limits)	Water quality enhancement	Preservation of a 50 foot wide open space riparian buffer along the creek.
Leucadia	Saxony Detention Basin	Sediment removal	Detention basin.
Encinitas/ Cottonwood Creek	Moonlight Beach Urban Runoff Treatment Facility at Third and B Streets.	Bacteria Removal	Ultra-Violet treatment facility treats dry-season urban runoff. Facility was brought on-line in August, 2002, and operated since then during dry weather.
Encinitas/ Cottonwood Creek	Cottonwood Creek Park Sediment basin at Encinitas Blvd. and Vulcan Ave. (planned)	Sediment and nutrient removal	Inline wet pond designed to reduce peak storm discharge, remove sediment, and provide biological treatment of Cottonwood Creek.
Encinitas/ Cottonwood Creek	Quail Gardens Detention Facility at Quail Gardens Drive at Encinitas Ranch	Sediment removal	Detention basin designed to reduce peak storm discharge and remove sediment prior to release into Cottonwood Creek
Cardiff	Brandywine Wetland Development south of Santa Fe Drive	Nutrient removal	Wetland preservation and enhancement area.
Cardiff	Ocean Cove	Sediment removal	Detention basin.
Cardiff	Cape Sebastian	Sediment removal	Detention basin.
New Encinitas	El Camino Real Detention Basin (Pine Branch Lux Canyon)	Sediment removal	Detention basin.
Leucadia	Fox Point	Sediment removal	Detention basin.
New Encinitas	Plaza II	Sediment removal	Detention basin.
Leucadia	Piraeus/Sparta	Sediment removal	Detention basin.
Leucadia	Piraeus/Olympus	Sediment removal	Detention basin.
Leucadia	Leucadia Oaks Park	Sediment removal	Detention basin.
La Costa	La Costa Basin (new - 10/06)	Sediment removal	Detention basin.

5.2.2 Residential BMPs

Residential BMPs are nonstructural and are targeted at activities defined by the Municipal Permit as high priority. The City has revised its Storm Water Ordinance to be more direct and explicit about prohibitions on non-storm water and storm water discharges. BMPs are encouraged through the use of brochures, mailings, personal contact when applicable,

workshops, City newsletter, and City website. These activities are discussed in Chapter 9 Education and Chapter 10 Public Participation. Following is a description the BMPs that the City has been focusing on in the residential component.

(a) Automobile Repair and Maintenance (Residential)

Pollution Prevention (See Section 5.1)

- (1) Encouraged residents to use routine preventative maintenance practices
- (2) Encouraged and/or facilitate reductions in vehicle use
 - Changes in driving habits
 - Carpooling
 - Increased use of public transportation
 - Biking or walking for short trips
- (3) Encouraged residents to make timely vehicle repairs

Leaks and Spills

- (1) Encouraged residents to prevent leaks and spills from contacting stormwater
 - Use drip pans, plastic sheeting, or other materials to contain spills
 - Work indoors or under shelter
 - If working outdoors, don't do it in the rain
 - Require that leaks and spills be cleaned up when they occur
 - Use absorbent materials to clean up spills
 - Establish cleanup standards
 - Require that tools and parts be cleaned only in contained areas

Materials and Waste Management

- (1) Educated residents to properly manage and dispose of automotive wastes and materials through the automotive fact sheets by:
 - Proper and lawful disposal of wastes recycling of oil and antifreeze
 - Storage of materials and wastes indoor or under cover
 - Use of secure and watertight containers when storing materials and wastes outside

(b) Automobile Washing (residential)

Management / Reduction of Wash Water

- (1) Educated residents to use dry cleaning methods to avoid the generation of wash and rinse water in the general stormwater brochure.
- (2) Encouraged residents to use commercial self-serve or full-serve car washes that properly recycle their wash water
- (3) Educated residents to wash vehicles over porous surfaces (grass, dirt, etc.)
- (4) Encouraged the establishment of neighborhood wash areas where wash water and contaminants can be properly managed

Materials and Waste Management

- (1) Educated residents to properly dispose of soapy water or bucket rinse water (sanitary sewer or soak into lawn) in the general stormwater brochure

(c) Automobile Parking (residential)

- (1) Design parking areas in residences; covered garages to be plumbed to the sewer system
- (2) Educated residents to use routine preventative maintenance practices and to make timely vehicle repairs through stormwater fact sheets.

(d) Home and Garden Care Activities and Product Use (residential)

GARDEN AND YARD CARE

Pollution Prevention

- (1) Encouraged residents to always read label instructions and follow the instructions for garden care products.
- (2) Encouraged water conservation practices through our website, calendar and water bill inserts.
- (3) Encouraged the use of xeriscape gardening
 - Encouraged the use of drip irrigation
 - Encouraged the use of soaker hoses
 - Encouraged the use of micro-spray systems
 - Encouraged the repair or adjustment of irrigation that allows excessive runoff
- (4) Encouraged recycling of lawn clippings and greenery waste through local programs.
- (5) Encouraged planting or mulching of hillsides and slopes to prevent erosion.

Leaks and Spills

- (1) Educated residents to immediately cleanup of spills of gardening chemicals, fertilizers and soils.
- (2) Educated residents to return spilled materials to the container for future use or proper disposal.

Materials and Waste Management

- (1) Educated residents to store lawn care products in closed labeled containers and in covered areas through the stormwater brochures.
- (2) Discouraged the use of materials during windy or rainy days.
- (3) Encouraged stockpiles of soil, compost, or fertilizers be covered with plastic tarps to prevent dispersal by wind or rain.
- (4) Require disposal of household chemicals to the household hazardous waste collection facility or scheduled events.
- (5) Encouraged dry sweeping techniques for clean up.

HOME CARE AND MAINTENANCE

Pollution Prevention

- (1) Recommended product use only according to label instructions.
- (2) Encouraged recycling of unused, unwanted products through stormwater brochures.
- (3) Encouraged the use of water based paints through the stormwater brochures.

Leaks and Spills

- (1) Require the cleanup of hazardous materials spills immediately.
- (2) Educated residents on the use of techniques for spill cleanup and proper waste disposal.

Materials and Waste Management

- (1) Educated residents about the proper storage of household hazardous materials in closed-labeled containers in a covered area.
- (2) Informed residents about recycling of latex paint through community programs.
- (3) Encouraged and educated the residents about the disposal of unwanted household hazardous waste through household hazardous waste collection facilities.

Restrictions

- (1) Prohibit the disposal of wash waters (carpet cleaning, mop water, paint wash-up) to the street, gutter or storm drain.

(e) Disposal of Pet Waste

Waste Management / Disposal

- (1) Installed pet waste disposal bags at each Dog Park.
- (2) Purchased pet waste dispensers (Bag-on-Board™) as promotional giveaways at public events
- (3) Developed a brochure to reduce bacteria, sediment, nitrates and soaps in local waterways, "Manure Management Guide to Protecting our Waterways" (Appendix E-2)

5.3 Compliance and Enforcement Actions

The City received 57 complaints regarding residential areas or activities. Residential complaints which comprised of 38% of all complaints received, resulted in 25 educational actions, 17 Notices of Violation, one citation and one cost recovery action. Residential issues ranged from paint, stucco or concrete in the gutter to private lateral overflows.

5.4 Changes to the JURMP

No changes to the Residential Component are planned for the JURMP.

6.0 LAND-USE PLANNING FOR NEW DEVELOPMENT AND REDEVELOPMENT

Being a coastal community, environmental and water quality have been of utmost importance to the City of Encinitas since it was incorporated in 1986. This component describes the City's approach to minimizing the negative impacts of urbanization on storm water pollution control through the implementation of its General Plan and Land-Use policies. The Community Development and Engineering Services Departments within the City of Encinitas primarily administer the strong water quality protection policies reflected in the General Plan and the Land-Use element.

This component describes the City's actions during the reporting period FY 2005-06 regarding the development and redevelopment project review process, which ensures that City policies and regulations are followed. Of particular interest are the City's strides towards implementation of the Standard Urban Stormwater Mitigation Plan (SUSMP) requirements of the Municipal Permit. The environmental review process and the revisions implemented to comply with the Municipal Permit are also discussed in this section. Finally, the City's stormwater educational efforts are described.

6.1 General Plan

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Projects requiring a discretionary permit are subject to a three-tiered review process that includes an initial predevelopment review prior to submittal to the City, a written self-certification of the BMP requirements for the project, and the application of project conditions of approval for meeting storm water pollution control requirements. Those projects requiring a further ministerial permit are also subject to a plancheck review as described in the Ministerial Permit section.

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- b) Present the BMPs that will be utilized on site to comply to the SUSMP requirements, and
- c) Certify that they understand and will implement construction and post-construction BMPs on their site as appropriate for their project's priority.

During the 2004-05 reporting period, this checklist was implemented for all ongoing CIP projects as a test case. It was expanded to all development projects at the end of the 2005-06 reporting period. A copy of the Checklist is provided in Appendix F-3.

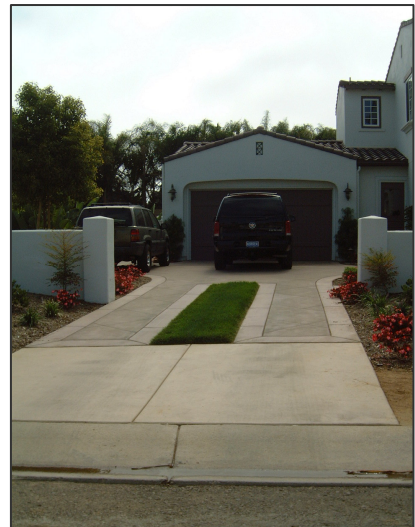
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The Engineering Department has established specific Conditions of Development Approval to assure compliance with the City's stormwater pollution control standards. These conditions, which are placed on the project during the Development Review process, include construction requirements as well as post-construction standards for effective stormwater pollution control facilities. Once the predevelopment meetings are conducted and the self-certification checklist has been completed, the Engineering Department reviews the adequacy of the proposed facilities shown on the site plan and issues conditions of development to ensure implementation of satisfactory treatment measures. The Engineering Department reviews an average of 25 projects each month submitted for Development Review, approximately 5% of which are Priority

Projects. Appendix F-5 provides the typical development conditions relating to stormwater pollution control.

The Engineering Department's Conditions of Approval for a project take into account the nature of the project site and the work proposed. All projects are conditioned to comply with construction stormwater requirements, and those projects creating new impervious surface areas or otherwise having a potential impact on stormwater pollution must provide standard or priority post-construction BMPs to the satisfaction of the City Engineer.

Applicants not showing adequate BMP measures on their initial development review submittals are asked to revise their plans and resubmit prior to approval. At a minimum, stormwater pollution control facilities for standard BMP projects may be considered adequate when they include no directly connected impervious areas (DCIA). Landscape areas must be designed to receive flows from hardsurface areas, and new impervious areas should be minimized in order to reduce adverse impacts on stormwater quality. When appropriate, project applicants are required to provide grassy swales or reinforced gravel swales along their property frontage to the street for stormwater pollution control purposes.



In the Development Review process, Priority Projects must show a feasible solution for numerically-sized treatment BMPs on their project plans, and those projects with treatment areas that appear to be inadequate are asked to provide substantiating calculations with their development review resubmittal. These numerical treatment requirements are enumerated in the BMP Manual, Part II, included here as Appendix F-2 and available to all applicants through the City website.

Priority Projects, such as those listed above, are not only required to show the proposed treatment BMPs on the development review site plan, but are also issued conditions of project approval requiring they meet all of the standard post-construction BMP requirements discussed above and follow additional guidelines calling for the construction of numerically sized stormwater treatment facilities. The conditions of approval are then recorded in a covenant against the property. After the discretionary phase, those projects that enter the ministerial phase are subject to further review of the project BMPs during the plancheck process as described below.

6.2.3 Ministerial Projects

Projects requiring a ministerial permit such as a grading, improvement, or building permit are required to provide post-construction stormwater pollution control facilities on the permit plans. These facilities must be considered adequate before the plans are approved by Engineering staff. Often the project has been scrutinized at the discretionary permit level and the project has been conditioned to provide specific treatment facilities. For those projects not requiring a discretionary permit, the review of the storm water pollution control treatment facilities begins at the plancheck stage, which is described below.

During this reporting period, the City of Encinitas adopted new fees for NPDES plancheck and inspection of grading and improvement plans. The additional fees, assessed with every ministerial permit application, help to fund the increased workload brought about by more stringent storm water requirements,

The Plancheck Process

City plancheck engineers are trained in the design of stormwater pollution control facilities and serve as resources to the general public and to design engineers. During the plancheck process, every project is reviewed for stormwater BMPs. City plancheck engineers emphasize to applicants the variety of solutions that may be used in providing stormwater pollution control. Designs that propose directly connected impervious areas (DCIA) are not permitted, and projects that allow stormwater runoff to travel maximum practicable distances over landscape and turf areas are encouraged. Project engineers are asked to ensure that roof drains will discharge onto landscape areas rather than hard surfaces, and this stipulation is clearly indicated on the project plans. Whenever possible, hardsurface areas must be replaced with permeable ones and concrete ditches be replaced with grassy swales and rip-rap ditches. Excessive use of area drains in landscaped regions is discouraged. Driveways that drain towards turf areas on one or both sides or towards a grassy swale in the middle are promoted. All landscape areas for use as BMPs must be clearly marked on the plans, and project engineers are asked to include the note, "Landscape area for Best Management Practice to be privately maintained and not to be modified without a permit from City". Because the permitted drawing becomes public record, a clear record of the designated treatment areas is maintained. Engineers are also required to provide stormwater pollution control notes on the plans addressing employee stormwater education, materials storage, erosion control, and waste management (Appendix F-4). After a development drawing has been approved, Engineering Inspectors in the field ensure that the storm water pollution control treatment measures are installed per plan. During the current reporting period, approximately 75 standard grading or improvement projects were plan checked by the Engineering Department and required to implement SUSMP BMPs. A full list of these projects and the type of BMPs required is provided in Appendix F-6. Priority projects approved during this reporting period are discussed below.



Every plan in plancheck is also reviewed to determine if it meets the City's definition of a Priority Project. Priority Projects are checked to make sure that, in addition to meeting standard BMP requirements, numerically-sized treatment facilities are provided. Design requirements include providing treatment facilities to treat at least the volume of rainfall generated by an 85th percentile storm over the entire project acreage or ensuring a treatment time of between 5 and 9 minutes within a flow-based system; these requirements are discussed further in the BMP Manual, Part II, available to all applicants on the city website and included here as Appendix F-1. All Priority Projects must comply with the numeric sizing criteria in order to be approved by the City Engineer, and plancheck engineers review the hydrology calculations to determine the adequacy of treatment system proposed. The project applicant is required to assume the maintenance responsibility or to identify the maintenance mechanism for the treatment system prior to project approval, and a covenant ensuring adequate maintenance into perpetuity is recorded against the property. In the current reporting period, 14 Priority projects were approved for issuance of grading or improvement permits. These projects are listed below in Table 6-1.

Table 6-1 Priority Projects Under Engineering Development Review (FY 2005-06)

Project Number	Approval Date	APN	Address	BMP Type	Maintenance Agreement
0106	6/27/2006	264-091-86	Wildflower Valley	Landscaped Area BMP, Rip rap	No Agreement
9048	3/28/2006	216-052-67-71	235 La Costa	Grassy Swale	Full Agreement
9117	8/11/2005	216-094-40	Barratt American	Gravel driveway	Full Agreement
9262	12/1/2005	258-370-52	840 Bracero	Grassy Swale	Full Agreement
9278	12/22/2005	264-450-05	Latigo Row	Detention basin and Grassy Swale	Full Agreement
9289	7/28/2005	264-160-16	Lone Jack / Jackie	Grassy Swale (reinforced)	Full Agreement
9294	12/8/2005	257-470-04	477 N El Camino Real	Fossil Filters, Grass Swale, ADS Water Quality Unit	On Plans
9301	8/5/2005	256-301-13	Halcyon Rd	Landscaped Area BMP	Full Agreement
9303	4/17/2006	254-362-80-83	887 Brittany	Grassy Swale and detention basin	Full Agreement
9318	8/17/2005	259-280-44-46	Santa Fe at Evergreen	Landscaped Area BMP	Full Agreement
9336	8/11/2005	216-052-08	Andrew and Sheridan	Grass Driveway	Full Agreement
9459	6/15/2006	256-340-3400	211 Saxony Rd	Detention basin, Landscape BMP	Full Agreement
9580	5/26/2006	264-232-27	Dove Hollow Ln.	Drainage Swale, Dry Weather Detention	Full Agreement
9590	6/21/2006	256-030-4300	731 Vulcan N.	Grassy swale, Landscaped BMP	Full Agreement

During the plancheck process, erosion control plans are also carefully reviewed to ensure compliance with construction BMP measures. Gravel bags, silt fences, stabilized construction entrances, and other methods must be provided where appropriate. Inlets to drainage facilities must be protected from sediment. Additionally, all exposed slopes need to be protected by a combination of hydroseed, permanent landscaping, and other erosion control measures. Even flat building pads not scheduled to be built upon immediately must be protected with erosion control methods until construction begins. Engineering inspectors visit the project sites frequently to ensure that erosion control measures are satisfactorily installed and are in good working order. Those projects with the potential for substantial erosion are often required to provide an additional plan for permanent landscaping and irrigation and to place bonds with the City to guarantee successful implementation of the measures shown thereon. Such bonds are retained until the landscaping has become well established.

Plans submitted for building plancheck are also reviewed by the Engineering Department for compliance with stormwater pollution control guidelines. No directly connected impervious areas (DCIA) are permitted, and landscape areas must be designed to receive runoff from hard surfaces. Stormwater pollution control BMP treatment areas are required to be clearly indicated on the plans and to be labeled as "Landscape areas for BMP to be privately maintained and not to be modified without a permit from the City." The building plan approval process has been modified to include a requirement for standard plan notes addressing stormwater pollution control for all projects (Appendix F-4). Building plans not providing adequate BMP facilities are required to be modified and resubmitted.

Post Construction BMP Maintenance Agreements

The Engineering Department is concerned that adequate BMPs are not only constructed but are also maintained in good working order. All Priority Projects under review for ministerial permits must execute a stormwater maintenance agreement guaranteeing the maintenance and/or replacement of the project BMPs as necessary into perpetuity. The covenant includes an attachment depicting the specific project BMPs, so the required facilities and their location on the project site are easily identified. The maintenance agreement is then recorded against and runs with the property. In a few rare cases the maintenance requirements are outlined on the plans themselves and an agreement is not recorded. A sample Private Stormwater Treatment Maintenance Agreement is included in Appendix F-7.

6.2.4 Capital Improvement Projects

City Capital Improvement Projects (CIP) are subject to the same post-construction BMP requirements as private development. Because many projects are reconstruction, linear, or repair projects, often only construction BMPs are implemented. However, large projects install post-construction BMPs. During the 2005-06 reporting period, the following SUSMP projects were installed:

- Santa Fe Drive improvements and round-a-bout – six inlet filters were installed.
- Moonlight Beach Sewer Pump Station Renovation – new emergency sewage overflow basin to reduce sewage spills into Cottonwood Creek and Moonlight Beach

6.3 Environmental Review Process

In compliance with the JURMP, the City has modified its Initial Study Checklist. A copy of this checklist can be found in Appendix F-8. The revised checklist was utilized for all CEQA Initial Study reviews performed during the reporting period.

6.4 Education Efforts Focused on New Development and Redevelopment

Education focused on new development and redevelopment during this reporting period consisted of ongoing one-on-one education during the development process as well as education for target audiences. Encinitas engineering staff participated in the development and presentation of the Carlsbad Watershed Post-Construction Best Management Practices workshops on May 18th and June 1st, 2006. This effort was undertaken to standardize BMP requirements amongst jurisdictions and then to disseminate information to local engineers and developers. The focus of the workshops was on encouraging low impact development (LID).

6.4.1 Ongoing One-on-one Education

Representatives of the Engineering Department work one-on-one with project applicants and engineers to educate them on stormwater regulations and how these requirements may be met through project design. In predevelopment meetings held for discretionary projects, engineering staff explain to project engineers the City's stormwater standards and direct them to online references, such as the Best Management Practice Manual Part II, that may provide further direction. Preliminary designs are reviewed and necessary modifications are discussed, ensuring that the best designs for meeting stormwater requirements are achieved. Project engineers receive continuing guidance through the remainder of the project to ensure an adequate design. Project engineers have further access to engineering staff throughout the plancheck process, and through the City's consistent emphasis on effective BMP methods, local engineers have provided innovative designs for stormwater pollution control.

During all phases of the development approval process, from predevelopment meetings through permit issuance, applicants and project engineers have access not only to the assistance of the Engineering Department staff in providing stormwater pollution control activities, but they are also encouraged to utilize written and online sources. The City of Encinitas has collected drawings and guidelines into a professional engineers' reference, the BMP Manual Part II. The manual helps engineers to design effective and adequate stormwater pollution control facilities and includes typical drawings for stormwater treatment basins, percolation basins, grassy swales, and stormwater discharge systems. The manual also includes guidelines for maximizing the flow of runoff over landscape, lawn, and other permeable areas.

6.4.2 Targeted Audience Education

The BMP Manual, Part II was made available to the public on the City website and on CD at the Engineering and Planning counter for purchase.

On March 16, 2006 the Clean Water Staff presented a Planning Workshop to the Planning Commission to discuss specific water quality problems in Encinitas and the Carlsbad Watershed, and BMP requirements for new development. The workshop was given to the commissioners and an audience of 12. The title of the workshop was Carlsbad Watershed Protection and Stormwater Management – Focused Training on the SUSMP, Site Design Strategies and Long-Range Planning.

6.5 Revisions to JURMP

No JURMP revisions are planned at this time.

6.0 LAND-USE PLANNING FOR NEW DEVELOPMENT AND REDEVELOPMENT

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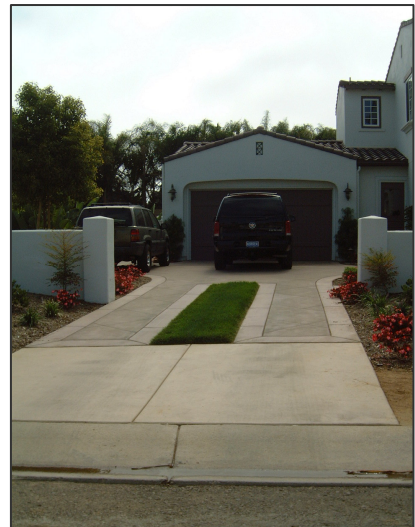
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During this reporting period, the City of Encinitas adopted new fees for NPDES plancheck and inspection of grading and improvement plans. The additional fees, assessed with every ministerial permit application, help to fund the increased workload brought about by more stringent storm water requirements,

The Plancheck Process

City plancheck engineers are trained in the design of stormwater pollution control facilities and serve as resources to the general public and to design engineers. During the plancheck process, every project is reviewed for stormwater BMPs. City plancheck engineers emphasize to applicants the variety of solutions that may be used in providing stormwater pollution control. Designs that propose directly connected impervious areas (DCIA) are not permitted, and projects that allow stormwater runoff to travel maximum practicable distances over landscape and turf areas are encouraged. Project engineers are asked to ensure that roof drains will discharge onto landscape areas rather than hard surfaces, and this stipulation is clearly indicated on the project plans. Whenever possible, hardsurface areas must be replaced with permeable ones and concrete ditches be replaced with grassy swales and rip-rap ditches. Excessive use of area drains in landscaped regions is discouraged. Driveways that drain towards turf areas on one or both sides or towards a grassy swale in the middle are promoted. All landscape areas for use as BMPs must be clearly marked on the plans, and project engineers are asked to include the note, "Landscape area for Best Management Practice to be privately maintained and not to be modified without a permit from City". Because the permitted drawing becomes public record, a clear record of the designated treatment areas is maintained. Engineers are also required to provide stormwater pollution control notes on the plans addressing employee stormwater education, materials storage, erosion control, and waste management (Appendix F-4). After a development drawing has been approved, Engineering Inspectors in the field ensure that the storm water pollution control treatment measures are installed per plan. During the current reporting period, approximately 75 standard grading or improvement projects were plan checked by the Engineering Department and required to implement SUSMP BMPs. A full list of these projects and the type of BMPs required is provided in Appendix F-6. Priority projects approved during this reporting period are discussed below.



Every plan in plancheck is also reviewed to determine if it meets the City's definition of a Priority Project. Priority Projects are checked to make sure that, in addition to meeting standard BMP requirements, numerically-sized treatment facilities are provided. Design requirements include providing treatment facilities to treat at least the volume of rainfall generated by an 85th percentile storm over the entire project acreage or ensuring a treatment time of between 5 and 9 minutes within a flow-based system; these requirements are discussed further in the BMP Manual, Part II, available to all applicants on the city website and included here as Appendix F-1. All Priority Projects must comply with the numeric sizing criteria in order to be approved by the City Engineer, and plancheck engineers review the hydrology calculations to determine the adequacy of treatment system proposed. The project applicant is required to assume the maintenance responsibility or to identify the maintenance mechanism for the treatment system prior to project approval, and a covenant ensuring adequate maintenance into perpetuity is recorded against the property. In the current reporting period, 14 Priority projects were approved for issuance of grading or improvement permits. These projects are listed below in Table 6-1.

Table 6-1 Priority Projects Under Engineering Development Review (FY 2005-06)

Project Number	Approval Date	APN	Address	BMP Type	Maintenance Agreement
0106	6/27/2006	264-091-86	Wildflower Valley	Landscaped Area BMP, Rip rap	No Agreement
9048	3/28/2006	216-052-67-71	235 La Costa	Grassy Swale	Full Agreement
9117	8/11/2005	216-094-40	Barratt American	Gravel driveway	Full Agreement
9262	12/1/2005	258-370-52	840 Bracero	Grassy Swale	Full Agreement
9278	12/22/2005	264-450-05	Latigo Row	Detention basin and Grassy Swale	Full Agreement
9289	7/28/2005	264-160-16	Lone Jack / Jackie	Grassy Swale (reinforced)	Full Agreement
9294	12/8/2005	257-470-04	477 N El Camino Real	Fossil Filters, Grass Swale, ADS Water Quality Unit	Full Agreement
9301	8/5/2005	256-301-13	Halcyon Rd	Landscaped Area BMP	Full Agreement
9303	4/17/2006	254-362-80-83	887 Brittany	Grassy Swale and detention basin	Full Agreement
9318	8/17/2005	259-280-44-46	Santa Fe at Evergreen	Landscaped Area BMP	Full Agreement
9336	8/11/2005	216-052-08	Andrew and Sheridan	Grass Driveway	Full Agreement
9459	6/15/2006	256-340-3400	211 Saxony Rd	Detention basin, Landscape BMP	Full Agreement
9580	5/26/2006	264-232-27	Dove Hollow Ln.	Drainage Swale, Dry Weather Detention	Full Agreement
9590	6/21/2006	256-030-4300	731 Vulcan N.	Grassy swale, Landscaped BMP	Full Agreement

During the plancheck process, erosion control plans are also carefully reviewed to ensure compliance with construction BMP measures. Gravel bags, silt fences, stabilized construction entrances, and other methods must be provided where appropriate. Inlets to drainage facilities must be protected from sediment. Additionally, all exposed slopes need to be protected by a combination of hydroseed, permanent landscaping, and other erosion control measures. Even flat building pads not scheduled to be built upon immediately must be protected with erosion control methods until construction begins. Engineering inspectors visit the project sites frequently to ensure that erosion control measures are satisfactorily installed and are in good working order. Those projects with the potential for substantial erosion are often required to provide an additional plan for permanent landscaping and irrigation and to place bonds with the City to guarantee successful implementation of the measures shown thereon. Such bonds are retained until the landscaping has become well established.

Plans submitted for building plancheck are also reviewed by the Engineering Department for compliance with stormwater pollution control guidelines. No directly connected impervious areas (DCIA) are permitted, and landscape areas must be designed to receive runoff from hard surfaces. Stormwater pollution control BMP treatment areas are required to be clearly indicated on the plans and to be labeled as "Landscape areas for BMP to be privately maintained and not to be modified without a permit from the City." The building plan approval process has been modified to include a requirement for standard plan notes addressing stormwater pollution control for all projects (Appendix F-4). Building plans not providing adequate BMP facilities are required to be modified and resubmitted.

Post Construction BMP Maintenance Agreements

The Engineering Department is concerned that adequate BMPs are not only constructed but are also maintained in good working order. All Priority Projects under review for ministerial permits must execute a stormwater maintenance agreement guaranteeing the maintenance and/or replacement of the project BMPs as necessary into perpetuity. The covenant includes an attachment depicting the specific project BMPs, so the required facilities and their location on the project site are easily identified. The maintenance agreement is then recorded against and runs with the property. In a few rare cases the maintenance requirements are outlined on the plans themselves and an agreement is not recorded. A sample Private Stormwater Treatment Maintenance Agreement is included in Appendix F-7.

6.2.4 Capital Improvement Projects

City Capital Improvement Projects (CIP) are subject to the same post-construction BMP requirements as private development. Because many projects are reconstruction, linear, or repair projects, often only construction BMPs are implemented. However, large projects install post-construction BMPs. During the 2005-06 reporting period, the following SUSMP projects were installed:

- Santa Fe Drive improvements and round-a-bout – six inlet filters were installed.
- Moonlight Beach Sewer Pump Station Renovation – new emergency sewage overflow basin to reduce sewage spills into Cottonwood Creek and Moonlight Beach

6.3 Environmental Review Process

In compliance with the JURMP, the City has modified its Initial Study Checklist. A copy of this checklist can be found in Appendix F-8. The revised checklist was utilized for all CEQA Initial Study reviews performed during the reporting period.

6.4 Education Efforts Focused on New Development and Redevelopment

Education focused on new development and redevelopment during this reporting period consisted of ongoing one-on-one education during the development process as well as education for target audiences. Encinitas engineering staff participated in the development and presentation of the Carlsbad Watershed Post-Construction Best Management Practices workshops on May 18th and June 1st, 2006. This effort was undertaken to standardize BMP requirements amongst jurisdictions and then to disseminate information to local engineers and developers. The focus of the workshops was on encouraging low impact development (LID).

6.4.1 Ongoing One-on-one Education

Representatives of the Engineering Department work one-on-one with project applicants and engineers to educate them on stormwater regulations and how these requirements may be met through project design. In predevelopment meetings held for discretionary projects, engineering staff explain to project engineers the City's stormwater standards and direct them to online references, such as the Best Management Practice Manual Part II, that may provide further direction. Preliminary designs are reviewed and necessary modifications are discussed, ensuring that the best designs for meeting stormwater requirements are achieved. Project engineers receive continuing guidance through the remainder of the project to ensure an adequate design. Project engineers have further access to engineering staff throughout the plancheck process, and through the City's consistent emphasis on effective BMP methods, local engineers have provided innovative designs for stormwater pollution control.

During all phases of the development approval process, from predevelopment meetings through permit issuance, applicants and project engineers have access not only to the assistance of the Engineering Department staff in providing stormwater pollution control activities, but they are also encouraged to utilize written and online sources. The City of Encinitas has collected drawings and guidelines into a professional engineers' reference, the BMP Manual Part II. The manual helps engineers to design effective and adequate stormwater pollution control facilities and includes typical drawings for stormwater treatment basins, percolation basins, grassy swales, and stormwater discharge systems. The manual also includes guidelines for maximizing the flow of runoff over landscape, lawn, and other permeable areas.

6.4.2 Targeted Audience Education

The BMP Manual, Part II was made available to the public on the City website and on CD at the Engineering and Planning counter for purchase.

On March 16, 2006 the Clean Water Staff presented a Planning Workshop to the Planning Commission to discuss specific water quality problems in Encinitas and the Carlsbad Watershed, and BMP requirements for new development. The workshop was given to the commissioners and an audience of 12. The title of the workshop was Carlsbad Watershed Protection and Stormwater Management – Focused Training on the SUSMP, Site Design Strategies and Long-Range Planning.

6.5 Revisions to JURMP

No JURMP revisions are planned at this time.

7.0 CONSTRUCTION COMPONENT

7.1 Description of Activities

The City of Encinitas has made a strong emphasis on its construction component. This emphasis begins with construction site BMP requirements that must be shown on grading plans, an aggressive inspection program and strong enforcement policies. The activities performed during the FY 2005-06 reporting period are discussed in the following sections.

7.1.1 Pollution Prevention

During the reporting period, pollution prevention BMPs were required on construction sites in accordance with the Encinitas Municipal Code (EMC), Chapter 20.08, the City's Stormwater Best Management Practices Manual, Part I & II, and the project's SWPPP, if applicable. In addition, grading and building plans issued included special notes requiring stormwater pollution prevention BMP implementation. These pollution prevention BMP requirements were also reiterated in the City's annual Erosion Control letter issued in September 2005 to contractors/developers operating in the City. Pollution prevention BMPs include erosion control, sediment control, materials management, and employee training programs. These BMPs were implemented on all construction sites and implementation was verified during site inspections.

7.1.2 Construction and Grading Approval Process

The City's project grading approval process has been modified to look for ways to minimize impacts of construction projects. The Engineering Department disperses information, enforces compliance, and checks for adequacy of the proposed facilities during predevelopment meetings with project applicants, during the Development Review process, and during the plan checks that precede project approval. This process is applied to ministerial and discretionary permits.

The Engineering Department has established specific Conditions of Development Approval to assure compliance with the City's stormwater pollution control standards. These conditions, which are placed on the project during the Development Review process, include active construction requirements as well as post-construction standards for effective stormwater pollution control facilities (discussed in Section 6). The Engineering Department's Conditions of Approval for a project take into account the nature of the project site and the work proposed. All projects must comply with construction stormwater requirements. Applicants not showing adequate BMP measures on development review submittals are asked to revise their plans and resubmit.

During the plan check process, erosion control plans are carefully reviewed to ensure compliance with construction BMP measures. Gravel bags, silt fences, stabilized construction entrances, and other methods must be provided where appropriate. Inlets to drainage facilities must be protected from sediment. Additionally, all exposed slopes need to be protected by a combination of hydroseed, permanent landscaping, and other erosion control measures. Even flat building pads not scheduled to be built upon immediately must be protected with erosion control methods until construction begins.

7.1.3 Source Identification

The construction inventory is included in Appendix G-1. Projects were prioritized as high or medium priority sites based on size, slope, soils, or proximity to receiving waters. A total 118 projects were included in the 2005-06 rainy season inventory; 23 of the projects were considered high priority. In addition to the inventory, the City's GIS Department created a map of the various construction projects which includes the parcel(s) under construction and receiving waters within the City. To assist with project prioritization, this map was overlaid with a map of environmentally sensitive areas (ESA) to assist in prioritizing sites. The map is included in Appendix G-2.

7.1.4 BMP Implementation

Construction BMP requirements are presented in the Encinitas Municipal Code (EMC), Chapter 20.08, the City's Stormwater Best Management Practices Manual, Part I & II, and the project's SWPPP, if applicable.

Clean Water Program staff spends a significant amount of time coordinating with the engineering inspectors with regards to stormwater management and BMP implementation on construction sites.

Clean Water Program staff constantly monitors weather patterns and storms in the Pacific through the National Weather Service. Weather reports and forecasts are posted on a bulletin board allowing inspectors to be constantly updated on the possibility of incoming rain. When the forecast exceeds 40% over the coming five-day period, inspectors inform contractors that additional BMP implementation may be necessary and, where necessary, they require developers to have additional BMPs in place at the end of each work-day. Rainfall data for the FY 2005-06 is included in Appendix G-3.

The general notes for the building plans have been amended to include erosion control, sediment control, and materials management practices. The Clean Water Program also reviews SWPPPs for projects greater than five acres and sensitive projects between one and five acres. Staff reviewed and commented on Stormwater Pollution Prevention Plans for four projects between July 1, 2005 and June 30, 2006. See Table 7.1 below for a summary of SWPPP reviews. Other project reviews completed by Clean Water Program Staff as part of the permitting process were previously addressed in Section 6.0, Land-Use Planning for New Development.

Table 7.1 Storm Water Pollution Prevention Plan Reviews, 2005-06

Site Name	Address	Size (acres)	NOI?	Review Date
Halcyon	Halcyon Road	3.2	Yes	7/18/2005
Sheridan Estates	Andrew and Sheridan	2.6	Yes	8/10/2005
Seacrest Village	211 Saxony Road	2	Yes	1/26/2006
Encinitas Library	540 Cornish Drive	2	Yes	3/9/2006

Through the review and plancheck process, staff may require additional or alternative BMPs to be implemented on individual projects. This allows the Clean Water Program to ensure that the proper sediment control, erosion control, and materials management BMPs are shown on the plans and are to be implemented on-site.

7.2 Summary of Inspections

The City of Encinitas Engineering Department employs six engineering inspectors to oversee construction activities in the City and verify that minimum BMPs are implemented. Four of the inspectors are under contract, while two inspectors are employed by the City of Encinitas. Stormwater inspections were performed regularly by engineering inspectors and occasionally by Clean Water Program staff. There were 23 sites designated as high priority during the 2005-06 wet season. High priority designations were given to sites based on proximity to receiving water, size of site, and/or existing or new slopes.

Engineering inspectors are responsible for inspections on a number of sites. Stormwater issues (compliance with the grading and stormwater ordinance) have become one of their main focuses, especially during the rainy season. Engineering inspectors were onsite inspecting high priority locations on a daily basis and were constantly monitoring BMPs installed and in use by developers, so that all high priority sites were inspected on a weekly basis, at a minimum. The high priority inspections are documented weekly. Staff documented a total of 492 stormwater inspections (437 were at high priority sites and 55 were at medium and low priority sites) during the wet season, spanning October 1, 2005 to April 30, 2006. This represents approximately a 90% documentation ratio for high priority inspections. As stated above, the inspectors are onsite daily verifying proper BMP implementation and perform many more inspections that are actually required, although not all are documented. The construction site stormwater checklist for FY 2005-06 is included in Appendix G-4.

In addition to the high priority sites, medium priority sites were inspected at least twice during the wet season for a total of 55 documented inspections at these locations. A total of 95 medium priority sites were identified for the rainy season. Inspectors are on these sites at a minimum of weekly inspecting stormwater BMPs, among other things. Although not all have been formally documented, all required inspections were performed at the medium priority locations during the rainy season. The majority of these locations were inspected by engineering inspectors and as necessary by Clean Water Program Staff.

7.3 Compliance and Enforcement Actions

7.3.1 General Enforcement

Enforcement actions fall into several categories as outlined in the Jurisdictional Urban Runoff Management Plan for the City of Encinitas.

The first level of enforcement is based on education. When Clean Water Program Staff or engineering inspectors noticed a deficiency with BMPs on a construction site, the inspector attempted to contact the superintendent onsite at the time of inspection. When this approach was feasible, education was given to the superintendent in the forms of verbal advice and/or written information regarding best management practices. If the superintendent was not available, a copy of the inspection report was given to the engineering inspector for the project and discussed in detail, thereby educating the inspector and allowing him to educate the superintendent in the field. Actual numbers of educational contacts were not calculated due to continuing efforts by the Clean Water Program staff and the engineering inspectors.

The second level of enforcement is the issuance of a written Notice of Violation (NOV). Typically, contractors cooperated with requirements without staff issuing Notices of Violation to stop or correct work. The written NOVs are sub-divided into two categories: a Notice to Correct

Work, and a Notice to Stop Work. When a Stop Work is issued, all work on the construction site must cease, with the exception of necessary erosion control, sediment control, or materials management practices. Notices of Violation are issued with a date for compliance and are followed up during future inspections.

On occasion, citations are issued for the most flagrant violations. The administrative citation process is most often used for citations, providing staff the ability to issue fines on-site when necessary.

An additional enforcement mechanism is referral to the Regional Water Quality Control Board. This occurs when a violation involves non-filing under the State General Construction Permit or when a significant sediment discharge occurs.

7.3.2 Reporting and Non-compliance

During the rainy season 2005-06, 63 NOVs were issued; including five (5) Stop Work Notices and 58 Notices to Correct Work. Five citations were issued.

A project on Gascony Road in Leucadia was problematic during this rainy season. The site is approximately 2.4 acres, with four estate style houses under construction. The site is on a significant slope and was deemed high priority for the rainy season. The drainage on-site flows down slope to the residents below, where no drainage easement exists to convey storm flows. During heavy rains, sediment laden water was discharged from the site through the residential areas below, resulting in numerous complaints from the residents. Through the winter, City Staff continued intensive inspections at the site, issuing several Notices of Violation and two citations. The ultimate solution to the drainage problem was to construct permanent detention basins for each pad to collect runoff from the site and pumps have been installed to pump the water up to Gascony into the MS4. The site has been completed with all post construction BMPs inspected and functioning properly.

Due to continued complaints at this site during the construction process, the RWQCB issued an Investigative Order No. R9-2006-0040 to the City requesting information on inspections, enforcement, education, and SUSMP requirements at the site. The City submitted all required information for the site in a Technical Report on April 13, 2006. The report is included in Appendix G-6. Subsequently, a Notice of Violation was issued to the developer and to the City. These Notices are included in Appendix G-6 along with the City's response to the violations.

The City of Encinitas Clean Water Program staff made one referral to the RWQCB during the wet season 2005-2006. The violation was for a discharge of concrete waste, which entered San Elijo Lagoon via the MS4. A citation was issued to the owner of the project and the sub-contractor performing the work. The incident occurred on March 15, 2006. See Table 7.2 for a summary of violations in FY 2005-06.

**City of Encinitas
FY 2004-05 JURMP Annual Report**

Table 7.2 Construction Enforcement Action FY 2005-06

Date	Site Address	Violation	Correct Work	Stop Work	Citation-Warning	Citation-Fine	Citation Number	Cost Recovery	Routine	Complaint
7/21/2005	680 Neptune Avenue	Lack of BMPs	X							X
8/9/2005	Ocean Knoll Elementary School	Lack of BMPs	X							X
8/15/2005	Andrew and Sheridan	Lack of BMPs	X						X	
9/20/2005	3575 Manchester Avenue	Lack of BMPs	X						X	
9/20/2005	1604 Gascony	Lack of BMPs	X						X	
10/1/2005	1555 Bella Vista	Lack of BMPs		X					X	
10/6/2005	3113 Camino del Rancho	Lack of BMPs	X						X	
10/6/2005	90/120 Seeman Drive	Lack of BMPs	X						X	
10/10/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
10/11/2005	3400 Jasmine Crest	Lack of BMPs	X						X	
10/14/2005	201 Quail Drive	Lack of BMPs		X					X	
10/14/2005	Santa Fe Drive and Evergreen	Lack of BMPs	X						X	
10/14/2005	701 Vulcan Avenue	BMP Maintenance	X						X	
10/14/2005	1604 Gascony	Lack of BMPs	X						X	
10/17/2005	Bella Colina	Lack of BMPs	X						X	
10/17/2005	3400 Jasmine Crest	Lack of BMPs	X						X	
10/17/2005	504 Ocean Bluff	Lack of BMPs	X						X	
10/17/2005	Santa Fe Drive and Evergreen	Lack of BMPs		X					X	
10/17/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
10/19/2005	201 Quail Drive	Lack of BMPs		X					X	
10/25/2005	504 Ocean Bluff	BMP Maintenance	X						X	
10/27/2005	Andrew and Sheridan	Lack of BMPs	X						X	
10/27/2005	3400 Jasmine Crest	BMP Maintenance	X						X	
10/27/2005	201 Quail Drive	Lack of BMPs	X						X	
10/27/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
11/1/2005	3542 Jasmine Crest	Lack of BMPs	X						X	
11/1/2005	504 Ocean Bluff	BMP Maintenance	X						X	
11/3/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
11/9/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
11/16/2005	504 Ocean Bluff	Lack of BMPs	X						X	
11/17/2005	Wildflower Valley Drive	Lack of BMPs	X						X	

**City of Encinitas
FY 2004-05 JURMP Annual Report**

Date	Site Address	Violation	Correct Work	Stop Work	Citation-Warning	Citation-Fine	Citation Number	Cost Recovery	Routine	Complaint
11/23/2005	504 Ocean Bluff	Lack of BMPs	X						X	
11/23/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
11/30/2005	504 Ocean Bluff	Lack of BMPs	X						X	
11/30/2005	Wildflower Valley Drive	Lack of BMPs	X						X	
12/1/2005	Andrew and Sheridan	Lack of BMPs	X						X	
12/6/2005	Third and B Street	Lack of BMPs	X							X
12/6/2005	Third and B Street	Lack of BMPs	X							X
12/8/2005	1415 North Vulcan Avenue	Illegal Discharge	X							X
12/14/2005	504 Ocean Bluff	Lack of BMPs	X						X	
1/3/2006	Lone Jack Road and Jackie Lane	BMP Maintenance	X						X	
1/3/2006	1604 Gascony	Lack of BMPs				\$100	CW-010306			X
1/13/2006	Encinitas Blvd and Quail Gardens Drive	Lack of BMPs	X						X	
1/18/2006	1604 Gascony	Lack of BMPs	X						X	
1/19/2006	504 Ocean Bluff	Lack of BMPs	X						X	
1/20/2006	Encinitas Blvd and Quail Gardens Drive	Lack of BMPs	X						X	
1/24/2006	1953 San Elijo Avenue	Lack of BMPs	X							X
2/8/2006	JBC/Lone Jack Road	Lack of BMPs		X					X	
2/9/2006	504 Ocean Bluff	Lack of BMPs	X						X	
2/14/2006	Encinitas Blvd and Quail Gardens Drive	Lack of BMPs	X						X	
2/17/2006	Andrew and Sheridan	Lack of BMPs	X						X	
2/23/2006	JBC/Lone Jack Road	Lack of BMPs	X						X	
3/15/2006	Andrew and Sheridan	Maintenance of BMPs	X						X	
3/15/2006	125 Chesterfield Avenue	Discharge of Concrete				\$100	CW-032106			X
3/15/2006	125 Chesterfield Avenue	Discharge of Concrete				\$100	CW-031506			X
3/15/2006	1604 Gascony	Lack of BMPs	X						X	
3/23/2006	Encinitas Blvd and Quail Gardens Drive	Lack of BMPs	X						X	
3/29/2006	505 South Vulcan Avenue	Lack of BMPs	X					\$934		X
3/29/2006	719 South Vulcan Avenue	Discharge of Paint				\$100	CW-032906			X
3/29/2006	470 Arroyo Drive	Lack of BMPs	X							X
3/30/2006	1604 Gascony	BMP Maintenance	X						X	
3/31/2006	Andrew and Sheridan	Lack of BMPs	X						X	

City of Encinitas
FY 2004-05 JURMP Annual Report

Date	Site Address	Violation	Correct Work	Stop Work	Citation-Warning	Citation-Fine	Citation Number	Cost Recovery	Routine	Complaint
3/31/2006	1604 Gascony	Lack of BMPs				\$100	CW-040306		X	
4/10/2006	1604 Gascony	BMP Maintenance	X						X	
4/28/2006	967 South Highway 101	Lack of BMPs			X			\$200		X
5/9/2006	540 Cornish Drive	Discharge of Sediment	X					\$300		X
9/27/2005	1555 Bella Vista	Lack of BMPs	X						X	
Totals			57	5	1	\$500	5	\$1,434	54	14

7.4 Construction Education

Education for construction sites performed during this reporting period are listed below and are discussed in Section 9 of this Annual Report.

- In September 2005, the Senior Civil Engineer of Field Operations sent 118 Erosion Control letters to all grading permit holders in the City. This letter addresses BMP requirements that are the responsibility of the permit holder in regards to erosion and sediment control during the wet season. The letter reiterates sections of the City's Grading Ordinance, Encinitas Municipal Code Section 23.24.370. A copy of this letter is included as Appendix G-5.
- Announcements at pre-construction meetings. All pre-construction meetings are attended by the Engineering Department. The BMP requirements for construction and the concepts of post-develop BMPs are introduced and SUSMP requirements are outlined.
- Construction Inspector stormwater coordination. Staff from the Stormwater Management Program attended weekly inspector staff meetings to provide support and information to inspectors.
- Individual communication during inspections. Stormwater and construction inspectors provide BMP requirements and information to contractors and developers on a weekly basis in the field during inspections of stormwater protection measures.
- Printed materials were provided to contractors and developers in the form of the City's brochure, *"A Pollution Prevention Guide for the Construction Industry"*. The brochure is in Spanish and English. Approximately 394 brochures were distributed during this fiscal year.

7.5 Revisions to JURMP

No revisions to the JURMP are planned at this time.

8.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION COMPONENT

The Municipal Permit requires the establishment of an illicit connection/illegal discharge (IC/ID) program to actively seek and eliminate illicit connections and illegal discharges. This component describes the activities of the IC/ID program including the dry weather monitoring program, sanitary sewer overflows in the Encinitas Sanitary District/Cardiff Sanitary District (ESD/CSD) and in Leucadia Wastewater District (LWD), and public reporting of illicit discharges.

This program actively involves the municipal Clean Water Program staff, the sanitary districts (ESD/CSD,LWD), San Diego County and municipal Hazardous Materials teams, Fire Departments, Public Works, and the citizens of Encinitas. When an illicit discharge is detected in the monitoring programs or reported to the City, Clean Water Program staff investigates, inspects, eliminates, and follows up on the discharge. The City has trained and organized the municipal staff to detect and report illicit discharges and has also established an active public hotline to facilitate public reporting of illicit discharges.

8.1 Illicit Discharge and Connections Identification

8.1.1 Illicit Discharge Source Identification

The City of Encinitas incorporates four methods into source identification for illicit discharges including: dry weather monitoring, the stormwater hotline, routine inspections, and visual inspection of the Municipal Separate Storm Sewer System (MS4). These methods are discussed below.

Dry Weather Monitoring

Staff performs dry weather monitoring as required by Permit Section F.5.b, Dry Weather Analytical Monitoring. The City uses this program to better understand the water quality of its waterways and to detect illicit discharges. This program is described further in Section 8.2 of this document.

Stormwater Hotline

The second method in place to identify and eliminate illicit discharges is through the City's stormwater hotline, which receives complaints and referrals 24 hours a day. The hotline is staffed during business hours and includes a telephone number for after-hours emergencies. Staff carries an NPDES specific pager in order to respond promptly to after hours emergencies.

Routine Inspection

The third method utilized by City staff is routine inspection of businesses in order to further source illicit discharges. Industrial sites are inspected annually and are described in detail in Section 3.0, the Industrial Component, of this report. Commercial facilities deemed high priority are inspected on a routine and as-needed basis. The commercial inspections program is described in Section 4.0, the Commercial Component of this document.

Visual Inspections of the MS4

The fourth method of source identification employed by the stormwater and public works staff is through visual inspection of the MS4. When illicit discharges are observed, stormwater staff is notified and necessary measures are taken, starting with education, enforcement, and/or cleanup. Section 2.0, the Municipal Component, of this document describes the routine visual inspections performed by City staff. In FY 2005-06, 58 of the 150 total complaints were

reported by City staff as a result of visual monitoring of the MS4. These represent 39% of the total complaints received this fiscal year.

8.2 Dry Weather Analytical Monitoring

8.2.1 MS4 Map

A map of the MS4 was developed as required per the Consent Decree with Baykeepers (1999). The information is maintained in a Geographical Information System (GIS). The City of Encinitas has continued to refine and populate its GIS-based MS4 map throughout the reporting period. On a sub-basin by sub-basin basis, staff has been reviewing improvement, utility, and construction plans to verify the existing GIS maps and add storm drain features. In addition, Global Positioning System (GPS) verification has been performed for storm drains and creeks that are not shown on project plans or for which project plans are not available. The current map of the City of Encinitas MS4 and Dry Weather Monitoring Stations is located in Appendix H-1.

8.2.2 Dry Weather Analytical Monitoring Stations

Dry weather monitoring locations were selected based on adequate coverage of the MS4, allowing for characterization of flows and a better understanding of the water quality in Encinitas. This allows for the identification and tracking of exceedances, indicating the possibility of illicit discharges to the MS4. Efforts were made to cover the entire jurisdiction and isolate particular areas of the storm drain system according to factors such as land use or previous water quality data. The Dry Weather Monitoring Program for 2006 included 52 locations distributed across eight sub-basins.

8.2.3 Dry Weather Analytical Monitoring Procedures

The City's Dry Weather Monitoring Program utilizes methods and procedures in collecting and analyzing data which are consistent with those developed by the Copermittee Dry Weather Monitoring Workgroup. The elements of the dry weather program include 52 sampling locations, sampling frequencies, field screening and sampling procedures (including monitoring parameters), recommended action levels and data interpretation, follow-up investigations, and reporting. Each of these procedures is discussed further in the Dry Weather Monitoring Report for 2006, located in Appendix H-2.

Qualitative observations were made at all sample locations. Each location has a unique field data sheet noting observations such as color, clarity, odor, and biological characteristics. A copy of the field data sheet is included as Appendix H-3.

Field tests were performed by, or under direct supervision of, staff possessing a California Water Environment Association Laboratory Analyst Grade II Certification. Meters were used in determination of pH, conductivity, temperature, and turbidity. Ammonia, ortho-phosphate, and MBAS analysis were performed with CHEMetrics field kits. Nitrate-nitrogen was analyzed using a Hach Spectrophotometer. Where possible, flow was determined by filling a bottle of known volume using a timer and an estimation of the amount of flow captured. Flow was not able to be measured in certain locations, often due to lack of flow, but was noted as either flowing or ponded at all locations.

8.2.4 Dry Weather Data Analysis

Detailed analyses of the 2006 dry weather data are included in Appendix H-2, the Dry Weather Monitoring Assessment, May 1, 2006 – September, 2006.

8.3 Investigations/Inspections and Follow-up

Table 8.1 summarizes follow-up investigations performed as a result of dry weather monitoring in 2006. Detailed accounts of all investigations and inspections performed in response to dry weather analytical monitoring are included in the Dry Weather Monitoring Reports.

Table 8.1 IC/ID Investigations in Response to Dry Weather Monitoring, 2006

Sample Location	Parameter(s) Exceeded	Suspected Cause(s)
LCS-1	Oil and Grease, Bacteria	Illegal Dumping of Grease at a Restaurant
LCS-6	Bacteria, Turbidity	Commercial Washing
LUC-4	Bacteria	Animals

In addition to investigations performed as a result of dry weather monitoring results, many source identification investigations were performed in response to complaints received via the stormwater hotline and from City staff.

8.4 Elimination of Illicit Discharges and Connections

The City utilizes three primary methods for the identification of illicit discharges and connections. These include: complaint responses via the stormwater hotline, City staff complaints and City staff observations and detection and elimination through monitoring (primarily dry weather).

There were a total of 150 complaints filed with the Clean Water Program in FY 2005-06. All 150 complaints were investigated with sources being identified in the majority of the cases. As a result of the complaint investigations, there were a total of 161 enforcement actions which included education (86), Notice of Violations (58), Administrative Citations (11) and cost recoveries (6) for illegal discharges. In six instances, the number of enforcement actions involved multiple responsible parties, such as the case of a construction site where enforcement involved both the general contractor and the sub-contractor. Appendix H-5 identifies all 161 enforcement actions which includes: complaint dates, details of substances discharged and the resulting action taken by City Staff to eliminate and prevent discharges in the future.

The most flagrant violations observed by City staff resulted in Administrative Citations and cost recoveries issued to the responsible party. Table 8.2 below summarizes the most serious of the violations and the resulting action.

Table 8.2 Citations Issued FY 2005-06

Date	Code Violation	Violation Description	Fine	Cost Recovery	Category
8/22/05	20.08.040	Illegal discharge of concrete wash water	\$100.00	\$0	Commercial
10/20/05	20.08.040	Illegal discharge of wash water	\$100.00	\$0	Commercial
11/9/05	20.08.040	Illegal discharge of sewage	\$0	\$536.77	Residential

**City of Encinitas
FY 2005-06 JURMP Annual Report**

Date	Code Violation	Violation Description	Fine	Cost Recovery	Category
11/18/05	20.08.040	Illegal discharge of grease and wash water	\$100.00	\$1,170.53	Commercial
11/18/05	20.08.040	Illegal discharge of grease and wash water	\$100.00	\$390.17	Commercial
1/02/06	20.08.040	Illegal discharge of sediment	\$100.00	\$0	Construction
3/15/06	20.08.040	Illegal discharge of concrete wash water	\$100.00	\$0	Construction
3/15/06	20.08.040	Illegal discharge of concrete wash water	\$100.00	\$0	Construction
3/29/06	20.08.040	Illegal discharge of paint waste	\$100.00	\$0	Construction
4/25/06	20.08.040	Illegal discharge of wash water	\$100.00	\$0	Commercial
4/28/06	20.08.040	Illegal discharge of sediment and wash water	\$0	\$196.15	Construction
5/8/06	20.08.040	Illegal discharge of sediment	\$0	\$298.19	Construction
6/9/06	20.08.040	Illegal discharge of paint waste	\$100.00	\$0	Residential
6/10/06	20.08.040	Illegal discharge of wash water, food and trash debris	\$100.00	\$0	Commercial
6/27/06	20.08.040	Illegal discharge of antifreeze	\$0	\$353.03	Commercial
		TOTAL	\$1800.00	\$4,816.14	

The major illicit discharges and connections eliminated this reporting period are summarized above in Table 8.1 above.

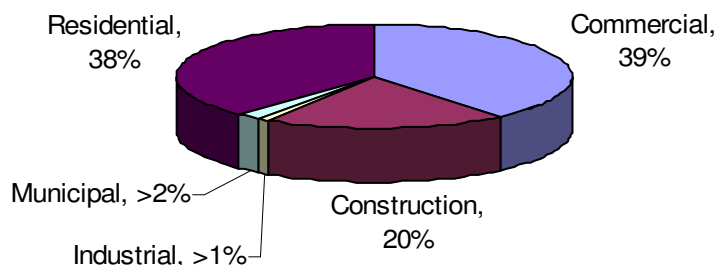
In addition to routine elimination of illicit discharges and connections through monitoring and complaint response, the program continues to address sanitary sewer overflows caused by grease blockages. The City has instituted a requirement that new restaurants or significant tenant improvements (TI) to restaurants will install a grease interceptor. Each situation is evaluated on an individual basis and specific requirements are established. Currently, through the Encinitas Municipal Code Chapter 18.04 – General Sewer Regulations, the City has the authority to require new restaurants or remodels to install grease traps or interceptors. During the reporting period, all new restaurants and those submitting plans for TI were required to install grease interceptors.

8.5 Enforce Discharge Prohibitions Ordinance

In FY 2005-06, Clean Water Program staff evaluated all reported illegal discharges and proceeded with appropriate enforcement actions as necessary. In total, City staff issued 11 Administrative Citations carrying fines and six additional notices for cost recovery. Additionally, 58 Notices of Violation were issued. With appropriate education and enforcement, numerous illegal discharges and connections were eliminated. A copy of the Administrative Citation is included in Appendix H-4.

Figure 8.1 below illustrates the percentage of complaints related to residential, commercial, construction, and municipal activities.

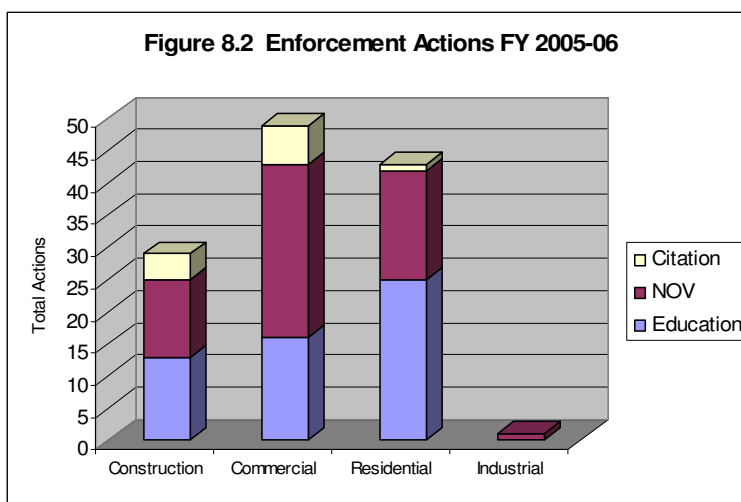
Figure 8.1 Complaints by Category



Commercial complaints which comprised of 39% of all complaints received, resulted in 16 educational actions, 27 Notice of Violation, six citations and three cost recovery actions. Residential complaints which comprised of 38% of all complaints received, resulted in 25 educational actions, 17 Notices of Violation, one citation and one cost recovery action. Construction complaints, which comprised of 20% of all complaints received, resulted in 13 educational actions, 12 Notices of Violation, four citations and two cost recovery actions. Industrial complaints which comprised less than 1% of all complaints received, resulted in one Notice of Violation and one cost recovery action. Municipal complaints which comprised less than 2% of all complaints were referred to the City's Public Works Department for maintenance.

Figure 8.2 depicts the breakdown of enforcement actions per complaint category.

Figure 8.2 Enforcement Actions FY 2005-06



8.6 Sanitary Sewer Overflows

Two separate agencies, Leucadia Wastewater District (LWD) and Encinitas Sanitary Division/Cardiff Sanitary Division (ESD/CSD), provide sewage collection and disposal for the City of Encinitas. LWD operates in the northern half of the City and ESD/CSD services the

southern half of Encinitas. Wastewater from LWD and ESD flow north to the Encina Wastewater Treatment Facility and CSD flows south the San Elijo Water Reclamation Facility.

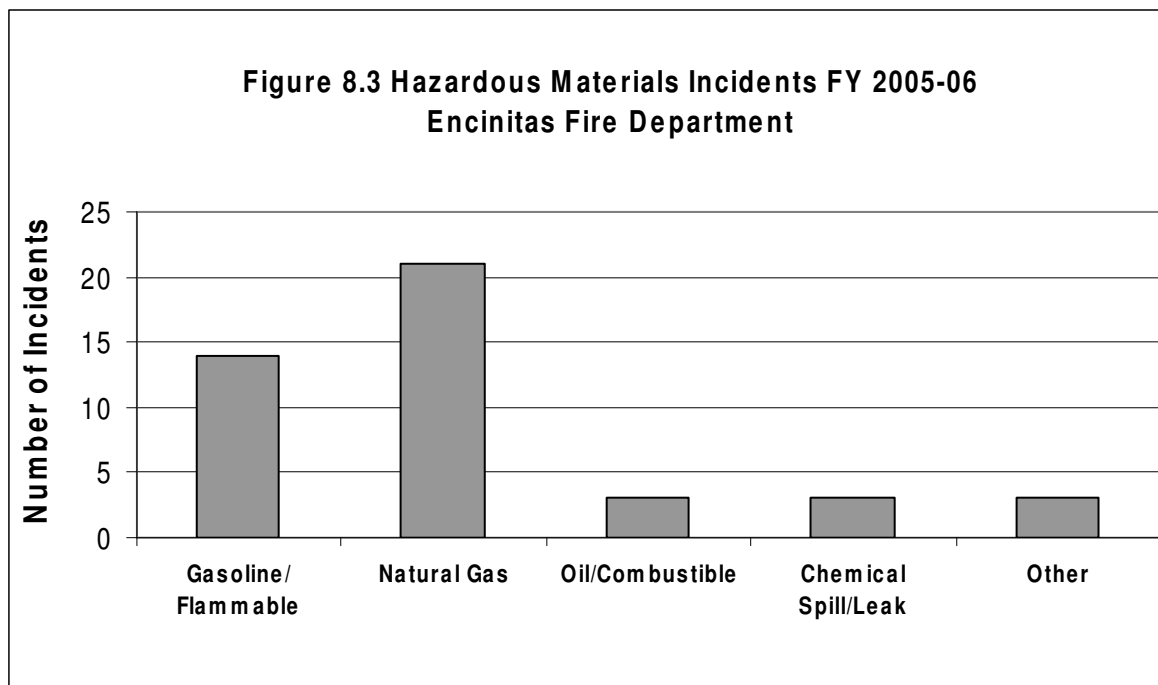
Table 8.3 contains a summary of all sanitary sewer overflows in Encinitas in the FY 2005-06.

Table 8.3 Sanitary Sewer Overflows, FY 2004-05

Date	Agency	Location	Volume Spilled (gal)	Volume Recovered (gal)	Volume Released (gal)	Cause
7/28/05	LWWD	1439 Encinitas Blvd	10	10	0	Feminine products
11/9/05	ESD	160 Florita St.	50	50	0	Lateral blockage, undetermined
11/23/05	LWWD	Camino de Los Coches	1350	0	0	Construction debris
1/30/06	LWWD	163 La Costa Ave	30	30	0	Unknown
2/3/06	LWWD	240 Cereus St	20	20	0	Unknown
4/4/06	LWWD	La Costa Ave	100	100	0	Debris prevented airvac from seating

8.6.1 Other Spills

The City of Encinitas Fire Department responded to 44 Hazardous Materials Incidents in FY 2005-06. These incidents ranged from gasoline spills, gas leaks, oil spills, chemical spills and other incidents such as carbon monoxide. The Fire Department is equipped with containment booms, absorbent material, shovels, storm drain covers and disposal equipment. The Fire Department is typically the first responder to contain the site and will notify the Public Works Department and the Stormwater Division. The Public Works Department will respond with sandbags, absorbent materials and increased manpower. The Stormwater staff will provide maps and locate the extent of contamination and sites for potential recovery. Samples and pictures will be taken for potential court action and cost recovery. Figure 8.3 illustrates the distribution of HazMat incidents for FY 2005-06. The hazardous materials incident listings for the Encinitas Fire Department are included in Appendix H-6.



The City of Encinitas also has a contract with the Hazardous Incident Response Team (HIRT) who will respond when the chemical is unknown or hazardous.

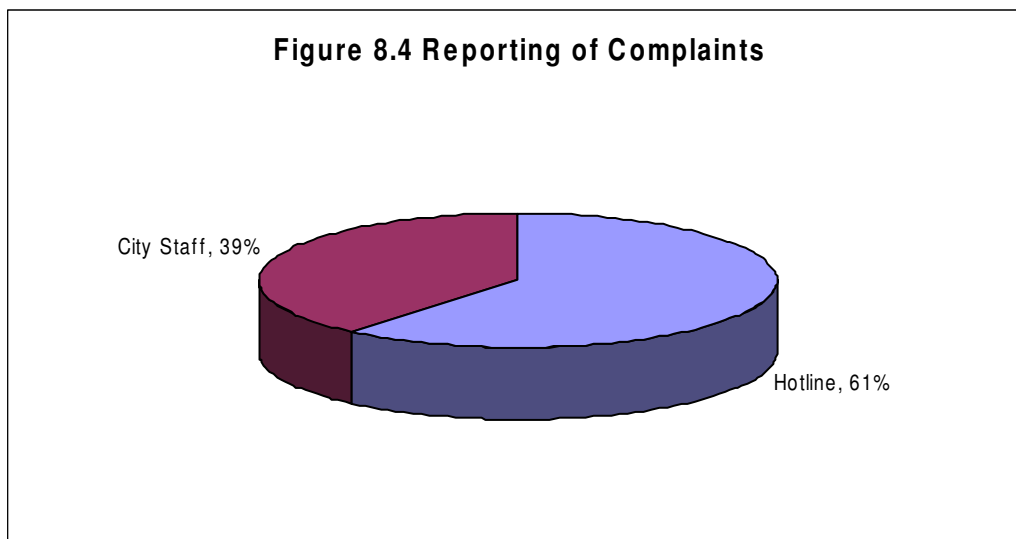
8.7 Public Reporting of Illicit Discharges and Connections – Public Hotline

8.7.1 Methods of Reporting

Multiple opportunities are provided to facilitate public reporting of illicit discharges and connections to the City Clean Water Program Staff. Clean Water Program staff maintains a hotline available to the public for reporting stormwater discharges and public works maintains one for sewage related discharges. The public also often notifies City employees, all of whom are trained in stormwater issues and promptly notify Clean Water Program Staff.

A storm water quality complaints database procedural manual was developed and completed in October 2004. The manual establishes the procedures for managing complaints in an Access database and for creating case files for Administrative Citations or Notice of Violations. The environmental inspector follows up on complaints and then determines whether an enforcement action is necessary. When a warning, citation, or Notice of Violation is issued then a case file is created. In the case of no violations, verbal instruction and educational materials are given. A copy of this procedural manual is in Appendix H-7.

The Clean Water Program staff received 150 complaints from two major sources this year, staff and public complaints. The complaints summary is included in Appendix H-6. Approximately 92 of the 150 complaints were reported via the stormwater hotline. City staff reported approximately 58 complaints. Figure 8.4 shows the breakdown of the methods used to report complaints.



8.7.2 Categories of Complaints

The majority of complaints reported by the public via the stormwater hotline are primarily related to residential and commercial activities. Approximately 49% of the hotline complaints reported are residential, while 32% are commercial complaints. Another 16% of the complaints are related to construction activities. The fewest hotline complaints, 3% relate to municipal activities. Figure 8.5 illustrates the complaints distribution for the past five reporting periods.

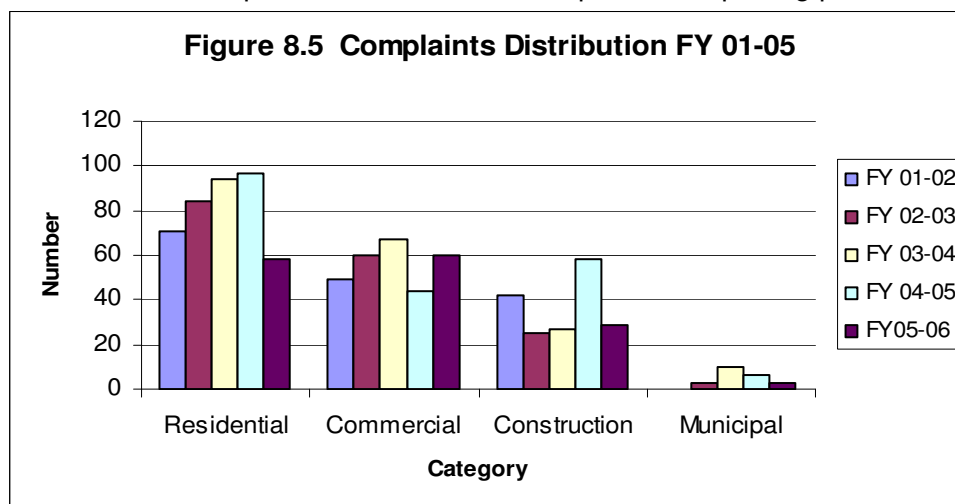
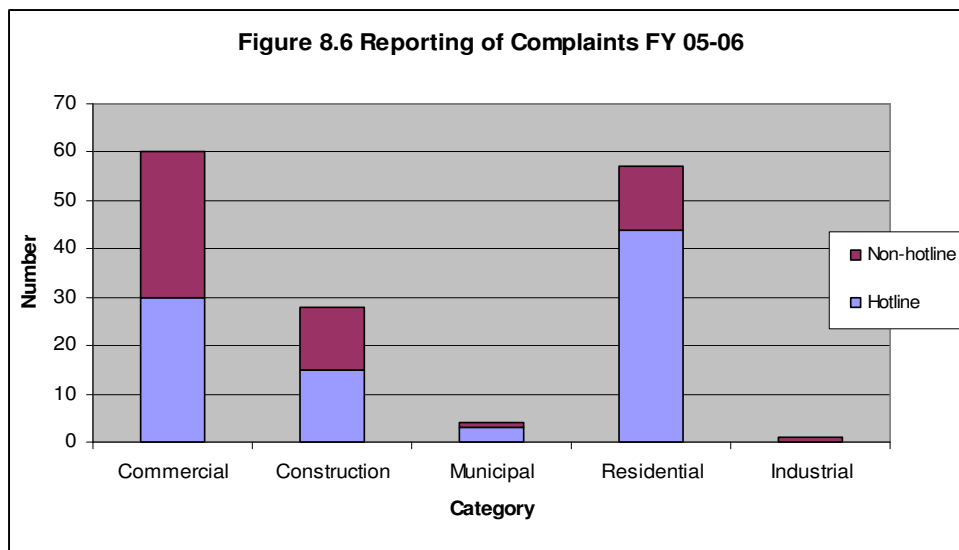


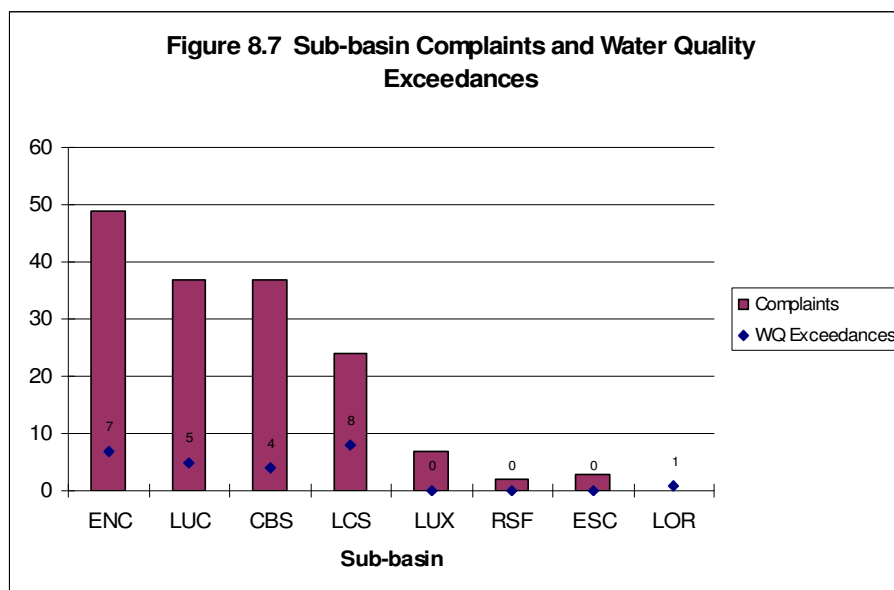
Figure 8.6 shows the percentage of complaints reported via the stormwater hotline by the category of complaint.



Enforcement in each category varied according to the complaint. Residential complaints were primarily resolved with education. Many of the contractors received Notices of Violation. Both Commercial establishments and Construction contractors received more enforcement actions than in past years. A breakdown of the enforcement actions performed per type of complaint is presented above in Figure 8.2.

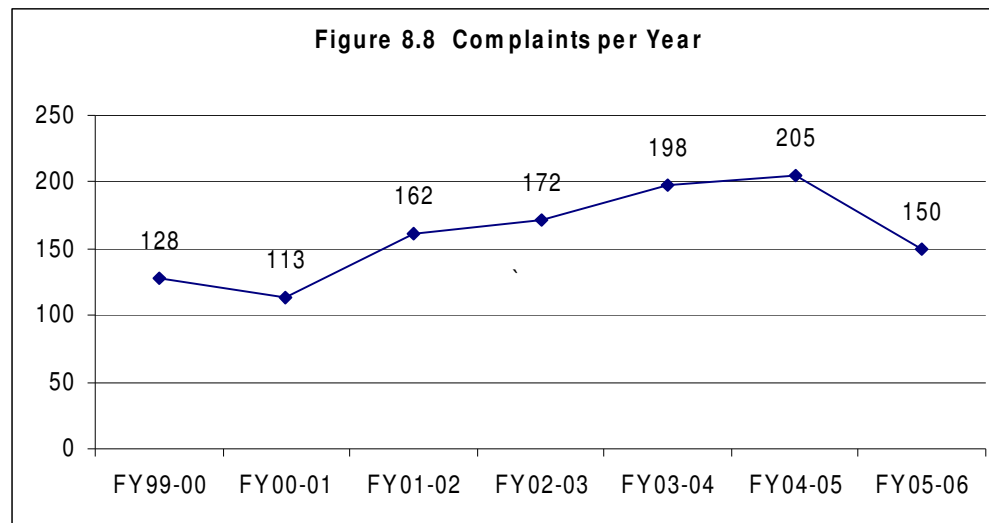
8.7.3 Distribution of Complaints

The City of Encinitas is broken up into eight distinct drainage sub-basins. These sub-basins are shown on the Dry Weather Analytical and Field Screening Monitoring Stations Map, included in Appendix H-1. Of these eight sub-basins, the Encinitas Sub-basin had the largest number of reported complaints. The Leucadia and Cardiff Sub-basins had many complaints reported as well. In Figure 8.7 the numbers of complaints are compared to water quality exceedances in the sub-basins. This correlation assists the City in prioritizing sub-basins.



8.7.4 Hotline Utilization

Through the efforts of the education component of the Clean Water Program, the general public in the City of Encinitas has become aware of the effects of illicit discharges on the environment. Methods to report stormwater issues were continually advertised during this reporting period. As illustrated in Figure 8.8, both City staff and the public continue to actively participate in the reporting of suspected illegal discharges and illegal connections.



8.8 Limiting Infiltration from Sanitary Sewer to MS4

The Municipal Permit requires that jurisdictions that operate both municipal sanitary sewer system and an MS4 must implement controls and measures to limit infiltration of seepage from these sewers to their MS4.

The City performed capital projects to repair the sewer system to reduce the potential for leakage of sewage into the MS4, to improve the integrity of the MS4 to prevent infiltration of sediments and pollutants, and to repair and maintain roadways to minimize erosion and pollutants from entering the MS4. During FY 2005-06, the following sewer (Table 8.5), and MS4 repair projects (Table 8.6) were completed or initiated:

Table 8.5 Wastewater Projects

Project Name	Goal	Status
Encinitas Blvd Sewer Main Replacement	Reduce sewage spills & increase capacity	Completed
Moonlight Beach Pump Station Rehabilitation	Reduce sewage spills & pump station reliability	In design phase
Regal Pump Station Removal	Reduce sewage spills & remove pump station	Under construction
Olivenhain Pump Station Upgrades	Pump station reliability and sensitive location to lagoon	In progress
Hwy 101 Sewer Forcemain, Phase III	Replace old ductile iron pipe to reduce sewage spills and leaks	In design phase

Table 8.6 Stormdrain Projects

Project Name	Goal	Status
Lone Jack (Stratford Knoll) Channel Improvements	Installing new storm drain	In design phase
4th Street Storm Drain	Eliminate flooding and erosion of beach area	Design complete
Manchester Ave. Storm Drain	Replace collapsing CMP pipe (will reduce sediment in MS4)	Complete
SDG&E Easement Storm Drain	Replace broken concrete channel with storm drain pipe.	Complete
Burgundy Road Storm Drain	Replace collapsing CMP pipe (will reduce sediment in MS4)	Complete

The City requires a 10-foot clearance between any sewer and storm drain facility, reducing the possibility for sewage to inflow into the MS4.

The MS4 is cleaned annually and inspected thoroughly during this cleaning by Public Works staff. This process is detailed in Section 2.0.

The City's Wastewater Collections Division purchased a Closed Circuit Television (CCTV) camera and truck in August of 2002. This equipment allows the City to televise sections of the sanitary sewer system or the MS4 in order to assess integrity or to investigate problems. If problems such as cracked pipes or illegal connections are suspected, City staff televises lines to check the integrity of pipes or to survey for illegal connections to the MS4. During FY 2005-06, wastewater collections staff televised approximately 25 miles of the sanitary collections system, focusing primarily on Cardiff. Staff also investigated hotspots and televised areas for preventative maintenance purposes. The CCTV equipment was also utilized on an as needed basis to televise portions of the MS4. This televising was in response to complaints regarding illegal connections to the storm drain system or in response to water quality exceedances detected through routine monitoring.

9.0 EDUCATION

The City's outreach program includes an education component and a public participation component. The education component is focused on disseminating educational information to increase public knowledge of stormwater issues, while the public participation component, discussed in Section 10, provides opportunities for the public to become involved in the process of education and reducing pollutants of concern in stormwater and urban runoff. The education component is primarily implemented by the Engineering Services Department (Clean Water Program).

The overall goal of the education element is to provide an education program that will:

- (1) Measurably increase the knowledge of children and their parents in the community regarding storm drain pollution and ways they can help and improve their scientific understanding with real life situations.
- (2) Measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment over the cycle of the Municipal Permit.

The City has performed a wide variety of stormwater education activities during the FY 2005-06 reporting period. Education and outreach has been performed on three levels; Jurisdictional, Watershed and Regional. The focus of this year's program was environmental education for schools and general stormwater and watershed education for citizens. Section 9.2 summarizes the specific activities utilized as they relate to specific target audiences.

9.1 Outreach Tools / Approaches

Following is a list of the types of educational tools and approaches that are used in the City's educational program.

- (a) **Print Media.** Newspaper advertisements or articles, newsletters, brochures, fact sheets and printed BMP information are used to inform and educate target audiences.
- (b) **Brochures/Printed Materials.** Educational brochures are used to reach specific target audiences (e.g., home do-it-yourselfers, businesses, etc.) with water quality and BMP information. The City produced and disseminated several specific activity-based or trade-appropriate brochures. Printed materials were included, as much as feasible, on our City website. Contact information and referrals to other topical references were provided.
- (c) **News Media Releases.** Articles and press releases are distributed for inclusion in city newsletters and local papers, likewise, homeowners, trade and industry associations will be encouraged to print articles in their newsletters. Media releases are used to announce special promotions, beach clean up days and special events.
- (d) **Municipal Facilities / Public Lobbies.** The City Hall Community Center public lobbies are used for distributing posters, brochures, and other educational items. Permit counters (construction, grading, hazardous materials, etc.) are also a primary tool for distributing trade-related materials to the business sector.
- (e) **Storm Drain Stenciling.** It is the goal of the City to have all storm drain inlets stenciled with a storm water message. Recently, the City has moved from painted stencils to a plaque-type stencil. The plaque is applied with glue and is more consistently high quality for a longer period of time.

- (f) **Promotional Items.** The City Clean Water Program uses promotional items that are given out at community events and schools. These items are imprinted with a stormwater message and Stormwater Hotline.
- (g) **Other Advertising.** The City participates in the Regional Outreach Program to explore the use of other, non-traditional advertising include the use of slides in movie theatres, bookmarks, coupons for car washes, and messages printed on bill inserts.
- (h) **Workshops/Training.** Workshops and training sessions are very effective tools for providing specific information to agency personnel and specific industries. The City uses this “hands on” approach primarily to educate internal city employees. Workshops have been used to train construction inspectors and contractors regarding the new storm water regulations. The City will continue to use workshops for increasing awareness and knowledge, conveying complex or technical information, and instructing attendees on the use of specific best management practices and pollution prevention techniques.
- (i) **Hotlines.** The City has a local hotline for stormwater concerns and complaints. The hotline number is (760) 633-2787 and connects the caller directly to the staff in the Clean Water Program. An after-hours stormwater hotline has been added to the daytime hotline number and is dispatched to field inspectors during evenings, weekends and holidays. Last year the hotline was included in the Government Listings of the San Diego Directories 2006 Phone Book. There are also currently two regional stormwater hotline numbers promoted within San Diego County, a toll-free Regional Stormwater Hotline, 1-888-846-0800 and the Think Blue Hotline, 1-888-THINK BLUE (1-888-844-6525). Both of these hotlines are staffed by the County of San Diego Monday through Friday, 8:00 a.m. - 5:00 p.m. In addition to personal service at these hotlines, during regular business hours, the hotlines provide a voice mail message for 24-hour public access.
- (j) **Internet Websites.** The City currently has a website that includes several pages of information regarding storm water. The stormwater information is easily access through a pull-down window on the homepage, and through links in the Engineering Services Department and Public Works pages. By clicking on “Clean Water Program” several pages can be accessed.
- (k) **Community Events.** Community events such as informational booths at community fairs and family festivals provide a conduit to distribute information and resources directly to target communities. On a regional and jurisdictional level, the City participated in the North County Storm Water Programs’ educational booths at nine different events
- (l) **School Programs.** Education of school children is essential for promoting storm water awareness and responsibility. The Clean Water Program worked with the San Diego County Office of Education’s Splash Lab and Green Machine to outreach to classrooms and teachers. The Solana Center, located in Encinitas, is active in school education and promotes pollution prevention, recycling, composting, water quality and general environmental education at Encinitas schools and throughout the county. The Clean Water Program and the North County Storm Water Program are working to develop a Regional program to educate elementary school students.

9.2 Jurisdictional Education Activities

The Municipal Permit establishes the following six target audiences which must be addressed by the education program:

- Municipal Departments and Personnel
- Construction Site Owners and Operators
- Industrial Owners and Operators
- Commercial Owners and Operators
- Residential Community, General Public, and Schoolchildren
- Quasi-Governmental Agencies / Districts

This section describes how the Outreach Tools/Approaches presented in Section 9.1 were applied to all target audiences and then to each target audience. It should be noted that there is crossover education that occurs during the education process of each target audience. The activities were performed on a jurisdictional level, unless noted.

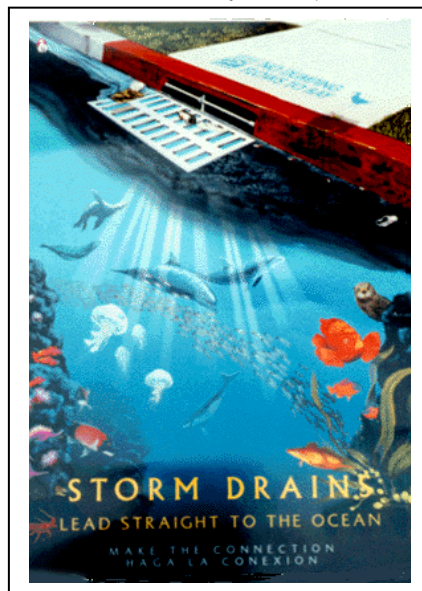
9.2.1 All Target Communities

- General storm water brochures were disseminated at City Hall front desk, the Engineering Counter, employee education sessions, and public events. Appendix I-1
- Stencils have been placed at inlets, as storm drain inspections note damage they are replaced. New projects are required to install decals on projects before completion and acceptance, Appendix I-2.
- The City of Encinitas updated the Clean Water Program website to add a shorter link to the City's website; <http://cwp.ci.encinitas.ca.us>, which takes one directly to the clean water program section of the City's site. In addition, the website was updated to include more comprehensive information regarding the Clean Water Program (see Appendix I-3), and includes:
 1. Clean Water Program Summary page
 2. "Frequently Asked Questions" page
 3. JURMP Summary page, with JURMP and JURMP Annual Report
 4. Clean Water Fee Description page
- The local Stormwater Hotline number has been well advertised in all forms of education outreach (brochures, door hangers, presentations and training, newsletter articles, newspaper articles), and promotional items (key chains and pencils).
- Door hangers were disseminated by Clean Water Program staff and Public Works personnel. Appendix I-4.
- Promotional key chains (shown at right) were designed in 2002. These were disseminated public events. The key chains are printed with the message "Encinitas Loves Clean Water, Hotline (760)633-2787".
- "Click" pens (Appendix I-4) were obtained in FY 2003-04 in conjunction with the North County Storm Water Program and Solana Center using an Integrated Waste Management Board grant with multiple stormwater BMP messages. This was a



watershed activity. An additional 250 additional pens were purchased in June 2004 and another 500 in May 2005 because of their popularity. These pens were disseminated locally at events.

- Twenty-one local newspaper articles and three articles in other media such as City of Encinitas Residential EDCO "Environmental Times" Newsletter, Down 2 EARTH News and Solana Center's "The Composter") were published locally with information regarding the City's Clean Water Program and its accomplishments.
- In 2002-03, a suite of twelve brochures (six in English and six in Spanish) were developed (Appendix E-1). These brochures were disseminated at educational events and placed on the City website. The brochures consisted of:
 1. Restaurants Can Help Keep Our Waterways Clean
 2. Automotive - Simple Things to Keep Our Waterways Clean
 3. Developers - Simple and Cost Effective Ways to Comply with Storm Water Regulations
 4. Diazinon - How It Affects Your Health, Your Family and the Environment
 5. Yard & Garden Care - Keeping Your Yard & Garden Beautiful and our Waterways Clean
 6. Hiring a Handy Man - Easy Instructions for the Homeowner
- General Stormwater Posters (developed previously as a watershed activity) were disseminated at public events.



9.2.2 Municipal, Construction, Commercial, Industrial, and Quasi-Governmental Communities

(a) Municipal Departments and Personnel:

Clean Water Task Force. The Clean Water Task Force, comprised of the City Manager, Department Managers and the Clean Water Program Manager. The goal of the task force is to improve coordination and communications between City departments to reduce major pollutants. Managers from Public Works, Engineering, Planning, Parks and Recreation, as well as the City Manager were present. A Clean Water Program Status Report was presented on May 11, 2006 with 10 members in attendance. The purpose of this meeting was to provide intra-city coordination in the Clean Water Program. Accomplishments of the program, permit re-issuance and budget were discussed. An informational glossary of stormwater terms and acronyms was also distributed to staff department heads.

Downstream Services. On February 9, 2006, City staff, including the Stormwater Department, Director of Public Works, Director of Engineering Services, City Manager, and our Street Maintenance crew, was given a presentation of the Downstream Services Maintenance contract and a product description. A total of 13 attendees were present to discuss the value of storm drain maintenance and filtration. Representatives, including the president and vice president of the company, made the audiovisual presentation to explain what work they do for the City of Encinitas.

Planning Department. On March 16, 2006, the Clean Water Staff presented a Planning Workshop to the Planning Department staff to discuss specific water quality problems in Encinitas and the Carlsbad Watershed and BMP requirements for new development. The workshop was given to 13 staff members. The title of the workshop was Carlsbad Watershed Protection and Stormwater Management – Focused Training on the SUSMP, Site Design Strategies and Long-Range Planning.

Engineering Department. On December 29, 2005, there was a meeting that focused on Engineering Inspectors Stormwater Education and the comparison with Florida Stormwater issues. The Engineering Department sponsored an educational meeting to discuss stormwater issues in the State of Florida. The presentation was by Art Darling who is executive director of Sunshine State Milk Producers and served on the Commission for a Sustainable South Florida. Art discussed surface water issues in Florida. The discussion also covered parallel local issues with nurseries and nitrates. Nitrates are one of Encinitas' high priority pollutants and nurseries are one of the major sources. Nurseries are being replaced with residential development which also heavily loads lawns with nitrates. In Florida and Encinitas it is believed that this nitrate migrates through the soil into our surface waterways.

Emergency Response Training. City of Encinitas lifeguards were presented with stormwater training and information regarding beach postings and closures as well as contact names and phone numbers for the Clean Water Program. Twenty-five lifeguards, department heads and stormwater staff attended the training.

Universal Waste Information. A total of 28 staff members were given information on proper Universal Water disposal practices.

City Council. Public Works staff and Engineering staff presented to the City Council (5 members) with approximately 50 public members in attendance. The purpose of the presentation was to educate the Council and public about the activities performed by the Clean Water Program.

City of Encinitas Property Owners. Education was given to the public and especially the Encinitas property owners via the Clean Water Vote. Several PowerPoint presentations were shown at City Council meetings, over 19,000 public surveys were mailed out, and other printed materials were distributed detailing the importance of maintaining local beaches, creeks, and lagoons. Public health, local economy and quality of life were emphasized to voters.

(b) Construction and development:

- "A Pollution Prevention Guide for the Construction Industry" was received and distributed at public events, to engineering construction inspectors, the building department, and displayed at the City of Encinitas Engineering counter for the public. Three hundred and ninety-four brochures were disseminated during the 2005-06 fiscal year. This brochure was developed as part of the Carlsbad Watershed URMP (see Appendix I-8).
- Announcements at pre-construction meetings. Pre-construction meetings are attended by the Engineering Department and the required construction site BMPs along with concepts of post-develop BMPs are introduced and SUSMP requirements are outlined.
- Construction Inspector stormwater coordination. Staff from the Clean Water Program attended weekly inspector staff meetings to provide support and information to inspectors.

- Printed materials were provided to contractors and developers in the form of the City's brochure, "Developers - Simple and Cost Effective Ways to Comply with Storm Water Regulations". The brochure is in Spanish and English.
- Special mailings of information (i.e., wet season erosion control letter). In October 2005, approximately 118 letters were mailed to local developers and contractors regarding BMP requirements for the upcoming rainy season. Letters were also hand carried by some of the inspectors to the job sites (Appendix G-3). "A Pollution Prevention Guide for the Construction Industry" brochure was inserted into the annual Erosion Control letter that went to contractors, developers, and job superintendents.
- The City of Encinitas co-sponsored a Post-Construction Best Management Practices seminar with the North County Storm Water Program cities on May 18, 2006 and on June 1, 2006. Site Design, Source Control, Treatment Control, SUSMP Requirements, and Jurisdictional review expectations were the key topics discussed.

(c) Commercial/Industrial Owners and Operators:

- Individual Communication. Inspections were performed at 126 commercial and three industrial facilities during the 2005-06 reporting period. During these inspections individual one-on-one education was presented to each facility manager/owner. Information presented included general stormwater education and BMP requirements.
- Printed materials were provided to commercial facilities in the form of City brochures including:
 1. "Only Rain in the Storm Drain", general stormwater brochures provided to all facilities.
 2. "Restaurants Can Help Keep Our Waterways Clean", provided to all restaurants. The brochure is in Spanish and English
 3. "Automotive - Simple Things to Keep Our Waterways Clean", provided to all automotive facilities. The brochure is in Spanish and English.
- During inspections, automotive facilities and restaurants were provided with the regional "Green Wrench Guide", "What's Cookin' Guide" and the Watershed-developed posters for automotive and restaurant BMPs, as well as local information regarding BMP requirements.
- The City of Encinitas coordinated with the City of Escondido and hosted a "Horse Management Workshop" for the public and horse facility owners held in the City of Escondido on May 17, 2006. This event focused on best management practices for equestrian facilities and was also co-sponsored by the Mission Resource Conservation District. Manure management, erosion, drainage, irrigation management, and manure composting were some of the key topics. At this public workshop the Manure Management Guide was given out. This guide is included as Appendix E-2.
- The City of Encinitas collaborated with the San Diego County Green Business Program and hosted a Green Business Restaurant workshop in Encinitas on May 16, 2006. The Green Business workshop was a free event to encourage restaurant business owners to save money, improve their business, and protect the environment through recycling, water and energy conservation, waste reduction and stormwater compliance. Other North County cities were encouraged to invite their local restaurant owners and managers.

- Last fiscal year the City of Encinitas helped coordinate and advertised the Automotive Workshop (City of Vista); Automotive BMP Videos/hydrophobic mops/oil containers/funnels and Green Business info & guidance. – June 21, 2005. Two businesses from Encinitas participated.

(d) Quasi-Governmental Communities:

- None.

9.2.3 Residential, General Public, School Children Communities

(a) Residential and General Public:

- Individual Communication. There were 57 Residential ICID complaint investigations in FY 05-06 and 43 of those resulted in education. During these inspections individual one-on-one education was presented to each homeowner/resident. Information presented included general stormwater education, BMP requirements, pollution prevention education, as well as specific municipal code and clean water regulations.
- In fiscal year 2005-2006, pet waste containers were distributed at public events to outreach to dog owners. The pet waste containers, shaped like fire hydrants, each contain 12 biodegradable pet waste bags. See Appendix I-9 for picture.
- Media Coverage (newspaper articles, press releases, etc.): See Table 9.1 below.



Table 9.1 Summary of Media Coverage for FY 2005-06

Article Number	Article Title	Date	Source
1.	Up a Creek	July 13, 2005	Union Tribune
2.	Fee to be put up for public vote	August 26, 2005	Coast News
3.	City OKs \$110,000 for clean-water vote	August 25, 2005	North County Times
4.	Environmental Times	Summer 2005	Newsletter by EDCO
5.	One mans' dirt another's sand	September 5, 2005	North County Times Commentary
6.	City officials take issue with urban runoff letters	September 12, 2005	Union-Tribune
7.	Letting Nature do the Work	September 2005	California Water Environment Assoc.
8.	Warning on runoff is called too vague	November 10, 2005	Union Tribune
9.	Earth News	Fall 2005	Solana Center for Envir. Innovation

**City of Encinitas
FY 2005-06 JURMP Annual Report**

Article Number	Article Title	Date	Source
9.	Officials warn of cascading costs to restore state's 'impaired' sites	November 18, 2005	Union Tribune
10.	City preparing to declare election for clean-water fee	November 28, 2005	North County Times
11.	Encinitas sets hearing to declare clean-water vote	December 15, 2005	North County Times
12.	Encinitas property owners to vote on clean water fee	December 17., 2005	Union Tribune
13.	Encinitas hones language for clean-water ballot	December 21, 2005	North County Times
14.	Encinitas voters reject Prop A	December 30, 2005	Coast News
15.	Foes of water fee say city 'playing dirty'	January 27, 2006	Coast News
16.	Encinitas groups spar over clean-water fee	February 2, 2006	Union Tribune
17.	Clean-water initiative flushed in Encinitas	March 2006	North County Times
18.	Prop. C defeat has city looking for other funds	March 17, 2006	Coast News
19.	Prop. C opponents want audit of costs	March 23, 2006	North County Times
20.	Northview – Pick up after your Pet	March 2006	Homeowners Association
21.	Warm and fuzzy victory	March 24, 2006	Coast News-editorial
22.	City seeks bids for refunding water fee	March 31, 2006	North County Times
23.	The Composter	March 2006	Solana Center for Envir. Innovation
24.	City to refund paid water fees	April 21, 2006	Coast News

• **Residential Workshops/events:**

1. Master Composter Training – The City of Encinitas sponsored a 30-hour training class for Encinitas Residents.
2. Coastal Clean-up Day – September 17, 2005.
3. Compost Bin Sale - The City of Encinitas sponsored a compost bin sale for the residents of Encinitas to encourage recycling of yard waste. – October, 2005.
4. Clean Water Program Presentation/City Council Meeting –October 19, 2005
5. Poinsettia Street Festival- November 20, 2005.
6. Healthy Home Healthy Garden Workshop @ Quail Botanical Garden–February 25, 2006
7. Encinitas Garden Festival “America in Bloom” (Cottonwood Creek Park)-April 8, 2006.
8. Creek to Bay Beach Clean-up –Saturday April 29, 2006.
9. Green Business Restaurant Workshop- May 16, 2006.
10. Horse Management Workshop-May 17, 2006.
11. Exotic Invasive Plant Workshop-June 7, 2006.

(b) School Children Communities:

- The City of Encinitas Parks & Recreation Department has many summer camps for children in Encinitas. "Back to Nature Week" is one camp that takes place in July at Glen Park in Cardiff. The Clean Water Program contracted the San Diego County Office of Education "Green Machine" to give a presentation on July 26, 2005. During the week of May 22, 2006, the City of Encinitas Public Works Department, San Dieguito Water District, and Encina Wastewater Treatment Facility, in conjunction with the Clean Water Program presented to kindergarten through fifth grade classes of Capri Elementary, Ocean Knoll, and Cardiff Elementary Schools. The presentations included a discussion of the importance of water quality and how activities upstream in a watershed affect downstream areas including the ocean. In addition to general stormwater education, children were encouraged to not litter and to clean up after their pets. Over 1,000 children participated in the week-long presentation.
- The San Diego County Office of Education was contracted by the Clean Water Program to provide school presentations at all Encinitas schools using the mobile science laboratory: Splash Lab & the Green Machine. Students between 4th & 6th grade received hands on science education with emphases on pollution prevention, watersheds, and habitats. Winner of the GOLDEN BELL AWARD, the Splash Lab turns students into scientists. The San Diego County Office of Education Outdoor Education Program offers a self-contained laboratory on wheels that brings a field trip to the classroom. Exciting hands-on experiments facilitate learning and exploration aligned with the California State Science Framework. Students gain valuable cooperative learning skills while performing chemistry experiments using state of the art computers and microscopes with live specimens. Each one-hour class is organized into six different research teams: Microscopes, Technology, Weather, Water Quality, Ground Water, and Life around the Pond. Teachers are given follow-up questions for the students to re-enforce their knowledge of the environment. The students and the teachers have given positive feedback to the programs. The Green Machine is designed for K-4 and focuses on Integrated Pest Management, soil, and climate. The watershed message is prevalent as well as encouragement and education for recycling. See Table 9.2 below for school activities organized by the City of Encinitas.

Table 9.2 City of Encinitas School Based Activities

Date	Event	# of Students
7/26/2005	Green Machine – Back to Nature Week	70
1/19/2006	Vermaculture/Composting @ Capri	120
1/30/2006	Green Machine – Park Dale Lane	120
3/06/2006	Green Machine – Paul Ecke Elementary	120
3/29/2006	Career Day – San Dieguito HS	38
4/18/2006	Green Machine – Flora Vista Elementary	120
4/24/2006	Green Machine – Ocean Knoll Elementary	120
5/16/2006	Green Machine – Cardiff Elementary	120
5/22/2006	Public Works Week	1,019
5/24/2006	Splash Lab – Park Dale Lane	120
6/6/2006	Splash Lab – Olivenhain Pioneer	120
6/15/2006	Splash Lab – La Costa Heights	120

Date	Event	# of Students
6/15/2006	Stormwater Presentation to Paul Ecke @ MLB	65
6/20/2006	Splash Lab – Capri Elementary	120
	Total	2,392

The Solana Center for Environmental Innovation also participated in school based educational programs where stormwater awareness was taught. See Table 9.3 below for details.

Table 9.3 Solana Center School Based Activities

School/Group Name & Address/Location	Date of Presentation /Event	Total number reached
Roots & Shoots - Cardiff Elementary	12/5/2005	20
Ocean Knoll Elementary	12/7/2005	58
Seaside Wisdom for Life School - Encinitas	2/2/2006	12
Paul Ecke Elementary - Encinitas	2/9/2006	60
San Dieguito Academy High School – Encinitas, Motor oil presentation for auto class	5/30/2006	35
San Dieguito Academy, Encinitas Motor oil presentation for auto class	4/26/2006	30
Rancho Encinitas Academy - Encinitas	5/5/2006	32
Park Dale Elementary - Encinitas	5/17/2006	61
	Total	308

9.3 Watershed Educational Activities

Important parts of the City's education program are activities generated on a watershed basis through the North County Storm Water Program, the educational arm of the Carlsbad Watershed URMP. Materials and activities are developed on a watershed basis to address the high priority water quality problems in the watershed. These materials and activities are then implemented or disseminated on a jurisdictional basis. Below is a description of the educational materials and activities that were performed on a watershed basis and implemented on a jurisdictional basis. A more description of watershed activities is provided in the 2005-06 Carlsbad WURMP Annual Report.

Message Pens. The NCSWP designed click-message pens in FY 03-04. The City continues to re-order and distribute the pens to the public through educational booths at local fairs, during presentations to community groups and schools, and other means feasible as determined by the individual Copermittee.

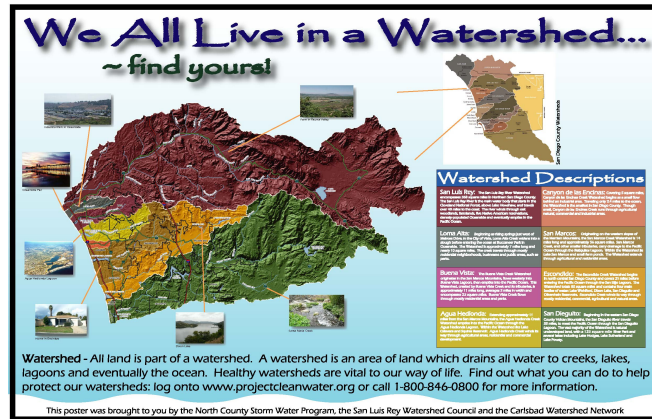
Public Awareness Follow-up Survey. To continue assessing the general public's level of watershed and water quality awareness, a one-page survey was redeveloped during this reporting period to be distributed at various public events. The new survey incorporated more watershed and pollution specific questions. The City of Encinitas collected surveys at the Encinitas Garden Festival.

Pet Waste Containers and Pet Waste Survey. A total of 160 Pet waste containers in the shape of fire hydrants, containing 12 biodegradable pet waste bags were disseminated at public events during FY 05-06. With bacteria as a pollutant of concern, dog owners/walkers were targeted with this promotional item. Pet waste containers were the most popular item at events and many dog owners were already using this handy tool that attaches to the dog's collar. At many events there seemed to be more canines present than children. A pet waste survey was

completed during FY05-06 to determine the effectiveness the education program has had on behavior and attempt to predict load reduction. Survey results are presented in the WURMP Report FY-05-06. The County of San Diego also conducted a very thorough analysis of pet waste load assessments at San Elijo Lagoon which is the being to providing a metric for calculations for load assessments.

Pledge Cards. The North county Storm Water Program developed and distributed postcards that included a watershed protection message with a pledge card for individuals to use to self-commit to specific non-polluting behaviors.

Watershed Map. A 36"x24" "We all Live in a Watershed" poster was developed giving information about the San Luis Rey, Carlsbad, and San Dieguito Watersheds. This educational poster includes a map of the watershed with topographical relief, information on individual watersheds and sub-watersheds, photos of various land-uses, as well as general information about water quality. The City of Encinitas used the poster in presentations and public display.



Watershed Collaboration. The City of Encinitas collaborated with other outside organizations to enhance public educational efforts to understand watershed issues, including the Carlsbad Watershed Network, Solana Center, North County Stream Team, and Escondido Creek Watershed Alliance. The City of Encinitas participated in numerous public outreach events throughout the watershed in an effort to provide watershed support and extend the watershed message beyond jurisdictional boundaries. The City participated in the following watershed outreach events:

- San Marcos Street Festival – 8/28/2005
- Coastal Cleanup Day – 9/17/2005
- Poinsettia Street Festival – 11/20/2005
- Healthy Home Healthy Garden Workshop – 2/25/2006
- Carlsbad Flower Field – 4/1/2006
- Encinitas Garden Festival – 4/8/2006
- Avocado Festival in Fallbrook – 4/29/2006
- Creek to Bay Beach Cleanup – 4/29/2006
- Horse Management Workshop – 5/17/2006
- Exotic Invasive Plant Workshop – 6/7/2006

Watershed Educational Materials. The City continues to distribute materials developed by the NCSWP in previous reporting periods, including the restaurant posters, automotive posters, "Storm Drains Lead to the Ocean" posters, general stormwater brochure and the door hangers. A new pencil was designed that states, "It's Your Watershed. Protect It!" The pencil also has the stormwater hotline on it. More than 300 pencils were distributed at public events and at local schools. Invasive species brochures were also distributed at watershed and public events. See Appendix I-5.

9.4 Regional Activities

On a regional basis, educational outreach activities are coordinated through Outreach Technical Workgroup and Project Clean Water. This group is made up of Copermitees throughout the entire San Diego County region. The workgroup meets on a bi-monthly basis. These meetings are open to the public and stakeholders provide informational presentations regarding activities and opportunities for partnerships. The group is funded through the regional program and operates under the Copermitees Memorandum of Understanding.

Most of the activities are coordinated and conducted regionally; however, some of the products are distributed or implemented on a jurisdictional basis. Below is a description of those activities that were specifically implemented on a local basis. A full description of regional activities is described in the Jurisdictional Unified Annual Report.

BMP Booklets. The Green Wrench Guide and a “What’s Cookin’ Guide” for automotive facilities and restaurants continues to be distributed to facilities during inspections. These guides are booklets that present information about general stormwater issues and regulations, and BMPs to reduce pollutants at their facility.

Watershed Map. The regional education group printed, mounted and framed Watershed Maps for each Copermitee Agency. The City of Encinitas used the poster for public display and at all events.

9.5 Partnerships

The City also pursued “crossover education” or consolidation with existing programs, such as solid waste removal, composting, recycling, household hazardous waste, used oil recycling and water conservation. At beach cleanups the City of Encinitas partners with “I Love A Clean San Diego”, the San Diego Coastkeepers, and the Solana Center to promote pollution prevention and educate the public about the destructive nature of marine debris.

- The City collaborated with Solana Center to provide educational stormwater messages in materials prepared for the used oil, household hazardous waste, recycling, conservation, and composting programs. During this reporting period., Solana Recyclers made the following presentations where a stormwater message was presented:
 - San Marcos Street Festival (8/28/2005)
 - Coastal Cleanup Day (9/17/2005)
 - Encinitas Poinsettia Festival (11/20/2005)
 - Compost/Vermaculture/Gardening Class (1/19/2006)
 - Healthy Home Healthy Garden (2/25/2006)
 - Encinitas Garden Festival (4/8/2006)
 - “Creek to Bay” Beach Cleanup (4/9/2006)

Other Partnerships:

- An important partnership in the City of Encinitas is with Solana Center for Innovation, including collaboration on educational material development and distribution and carrying the Clean Water Program message to the public through their events (some of which are sponsored by the City)

- The Clean Water Program also partnered with the San Diego County Green Business Program on an educational restaurant workshop on May 16, 2006.
- The Clean Water Program partnered with the Mission Resource Conservation District and the City of Escondido for a Horse Management Workshop in Escondido on May 17, 2006.
- The Clean Water Program partnered with ongoing Public Works Week activities presented at schools by the Public Works Department during the week of May 22, 2006.
- The City of Encinitas partnered with the Carlsbad Watershed Network and the San Elijo Lagoon Conservancy to present an Exotic Invasive Plant Species Workshop in Encinitas on June 7, 2006.

Educational Outreach Material Totals. In fiscal year 2005-2006, 21 outreach events and workshops were attended and/or hosted. The total number of outreach materials distributed was 5,392. This included BMP brochures for automotive facilities (English and Spanish), developers (English and Spanish), Diazinon (English and Spanish), "Hiring A Handyman" (English and Spanish), restaurants (English and Spanish), Yard & Garden (English and Spanish). The Program also distributed click pens with pollution prevention messages, watershed pencils, construction brochures, key chains imprinted with the stormwater hotline, pet waste containers, posters, door hangers, eating establishment guides, for example, "What's Cooking"; automotive guides; for example "Green Wrench," and other informational guides. These guides related to Integrated Pest Management (UCSD Cooperative Extension), water conservation brochures from local water districts and the County Water Authority, invasive species brochures-"Don't Plant A Pest" and "NIMBY-No Invasives In My Back Yard", "How to Hire A Landscaper"-UCSD Cooperative Extension/Scott Parker, County of San Diego Household Hazardous Waste Guides, miscellaneous stormwater educational worksheets for children, e.g., "Word Finds", and lastly, "10 Simple Ways You Can Help Protect the Ocean," from the Encina Wastewater Authority.

9.6 Revisions to the JURMP

No JURMP revisions are planned for this component.

10.0 PUBLIC PARTICIPATION

Public participation is one of several components of the City's overall outreach program. The goal of the education component, discussed in Section 9, is geared primarily towards disseminating educational material to increase public knowledge of stormwater issues. The goal of the public participation component is to provide opportunities for the public to become involved in the process of education and reducing pollutants in storm water and urban runoff. This component is primarily implemented by the Engineering Services Department (Clean Water Program) and the Public Works Department.

Public participation activities provide opportunities for the public to interact and become involved with water pollution issues. When the public has the opportunity to become involved there are several positive outcomes. First, those involved become more knowledgeable about storm water issues. Second, they become educators and stewards for the Clean Water Program. Finally, they provide important feedback to the Clean Water Program regarding the concerns of the public and issues that may be overlooked. Ultimately, the public could help make the education process more effective.

The constituency of Encinitas has a generally high level of awareness of water pollution issues and is actively involved in protecting the water quality of our waterways. This is evident by the results of the baseline public awareness survey and the number of reporting on the storm water hotline (discussed in Section 10.2.4 below and in Section 8.7). Following is a description of the City's public participation approach and the opportunities that were made available in Encinitas in the reporting period (FY 2005-06).

10.1 Public Participation Approach

The City's approach for the outreach program is to develop an understanding among its constituency of some fundamental stormwater concepts. These include:

1. The difference between the sanitary sewer and the storm drain system (sanitary waste gets treated, but discharges in the storm drain system flow directly to our waterways and the beach, untreated).
2. Our beaches have high economic value and we must protect their quality.
3. An understanding of what is an illegal discharge, i.e. sidewalk and street wash down runoff, vehicle fluid (antifreeze and oil), landscape debris, soil, etc.
4. How to report a stormwater violation (Storm Water Hotline).
5. The fact that we all live in a watershed and that the watershed is integral to wildlife, public health, and to the water quality of the rivers, streams and beaches.
6. Reducing pollutants of concern; pesticides (due to improper use and over-irrigation), eutrofication (over-fertilization), sediment (improper erosion control in landscaping and construction sites), bacteria (pet waste).
7. Responsibility of citizens to participate in the cleaning and maintaining of the community (i.e. beaches and parks) and not be part of the pollution problem (littering, illegal dumping of toxic chemicals etc.)

The tools that are used by the City to implement the public participation activities include:

- Workshops/Training Sessions
- Public Awareness Surveys
- Storm Water Hotline
- Community Events
- School Programs
- Printed Educational Materials
- The Environscape Watershed Model

The public participation program strives to include members of the following target audiences:

- Municipal Departments and Personnel
- Construction Site owners and Developers
- Commercial Owners and Operators
- Residential Community, General Public, and School Children
- Quasi Governmental Agencies/Districts

10.2 Public Participation Implementation

This section describes the specific public participation tools used during the FY 2005-06 reporting period.

10.2.1 Workshops/Training Sessions

Workshops and training sessions are effective tools for providing specific information to targeted audiences and obtaining direct feedback. All City employees were trained during the 2002-2003 FY reporting period. During this reporting period, workshops focused on small groups that have a high level of interaction with the public. These included the Planning Commissions and City departments. These workshops/training sessions consisted of education and provided an opportunity for the Clean Water Program to explain the complex issues of each target audience related to compliance with the stormwater regulations. Table 10.1 provides a summary of the workshops/training sessions conducted where public input was given to the Clean Water Program during this reporting period.

Table 10.1 Summary of Public Workshop/Training Sessions presented by Clean Water Program for FY 2005-06

Workshop/Training Session	Target Audience	Date	Attendance
Emergency Response Training	City Lifeguards	7/12/2005	25
Clean Water Presentation City Council Meeting	Public & City Staff	10/19/2005	50
Clean Water Task Force	City Department Heads	2/2006	10
Downstream Services Presentation	City Staff	2/9/2006	13
Universal Waste Information 2006	City Staff	2/16/2006	28
Healthy Home Healthy Garden	Public	2/25/2006	15
SUSMP Training	Planning Commission	3/16/2006	13
Green Business Restaurant	Restaurant Owners	5/16/2006	15

Workshop/Training Session	Target Audience	Date	Attendance
Horse Management Workshop	Horse Owners	5/17/2006	20
Exotic Invasive Plant Workshop	Public & City Staff	6/7/2006	45
Total			234

10.2.2 Public Opinion Surveys

During the current reporting period, as part of the Clean Water Vote (see Section 13.2 of this report) the City mailed out over 19,000 public opinion surveys related to the Clean Water vote. The mail out survey reported that 72% of the households considered clean water a high priority. In March, the City mailed out 19,000 ballots along with an informational Questions and Answers Document. The final tally showed that 61% voted against the Clean Water campaign and 39% voted for Clean Water Program.

10.2.3 Storm Water Hotline

The City has a local hotline that connects the caller directly to the staff in the Clean Water Program. The number is (760)633-2787. An after-hours hotline is also available on the recorded message that is dispatched to stormwater-trained City Staff. The after-hours hotline is (760) 633-2922. The hotline was placed in the Government Listings of the San Diego Directories 2006 phone book. There are also currently two regional stormwater hotline numbers promoted within San Diego County, a toll-free Regional Stormwater Hotline, 1-888-846-0800 and the Think Blue Hotline, 1-888-THINK BLUE (1-888-844-6525). Both of these hotlines are staffed by the County of San Diego Monday through Friday, 8:00 a.m. - 5:00 p.m. In addition to personal service at these hotlines, during regular business hours, the hotlines provide a voice mail message for 24-hour public access.

The Storm Water hotline has been heavily advertised for some time. The volume of calls decreased this reporting period, however it remains strong due to aggressive advertising and education (see Table 8.7.4). The hotline is advertised in newsletter and website, in brochures, on product giveaways, and during all presentations. A summary of the types of calls, follow-up and enforcement procedures related to the hotline are presented in the IC/ID section of this annual report. As an additional feature to the hotline, Clean Water Program personnel carry a 24-hour pager that is dispatched through the 24-hour emergency citywide security system. When emergency after-hours calls come in regarding a spill or major storm water violation, trained personnel are dispatched to the site.

10.2.4 Speakers Bureaus

The City did not utilize this form of public outreach during this reporting period, however, does plan to work with the City of Encinitas Chamber of Commerce, Cardiff Town Council, Leucadia Town Council, and the Downtown Encinitas Merchants Association (DEMA) to provide speakers to inform merchants about storm water issues, new regulations, and their responsibilities under these regulations. This venue provides an opportunity for merchants to discuss their issues and inform the City of new technologies and methods to control storm water.

10.2.5 Community Events

Community events such as informational booths at community fairs and family festivals provide a conduit to distribute information and resources directly to target communities. The City attended 13 jurisdictional public events. Following are the public events that the Clean Water Program organized or participated in: See Table 10.2 below.

Table 10.2 City of Encinitas Jurisdictional Community Events in FY 05-06

Community Events	Target Audience	Date	Attendance
1-Back to Nature Week Camp	Students	7/26/2005	70
2-Coastal Cleanup Day	Public	9/17/2005	16
3-Poinsettia Street Festival	Public	11/20/2005	800
4-Compost/vermiculture class	Students	1/19/2006	120
5-Healthy Home Healthy Garden Workshop @ Quail Gardens	Public	2/25/2006	15
6-Planning Commission Meeting	Public	3/16/2006	13
7-Career Day @ San Dieguito HS	Students	3/29/2006	38
8-Encinitas Garden Festival	Public	4/8/2006	500
9-Creek to Bay Beach Cleanup	Public	4/29/2006	85
10-Green Business Restaurant Workshop	Public	5/16/2006	15
11-Public Works Week	Students	5/22/2006	1019
12-Exotic Invasive Plant Workshop	Public	6/07/2006	45
13-Stormwater/Water Quality Workshop with Paul Ecke School	Students	6/15/2006	65
Total			2,801

10.2.6 Other Public Participation Groups

Escondido Creek Cooperative Agreement – During the previous reporting periods, the Cities of Solana Beach, Encinitas, Escondido, the County of San Diego, San Elijo Lagoon Conservancy, Escondido Creek Conservancy, and Cottonwood Creek Conservancy, signed an agreement to address the issue of future planning and development in the Escondido Creek Watershed, including the San Elijo Lagoon preservation area. The terms of the agreement are:

- Notification to participants in the agreement
- Participate in quarterly meeting
- Encourage preparation and submission of joint grant applications
- Consider appropriate mitigation strategies for the watershed

The group recognizes that activities on land impact the quality and quantity of land and water. With continuing growth in San Diego County and, in particular, North County, there is an increasing need to protect open space, habitat and water quality, while permitting responsible land development. Poorly planned development can lead to many problems including unnecessary loss of open space, fragmentation and ultimately the loss of irreplaceable habitat, increased fire hazards and unhealthy pollution of the waterways, lagoons and Pacific Ocean.

During this reporting period, representatives from the signatory agencies met quarterly to help better plan for and encourage a coordinated comprehensive conservation strategy in conjunction with responsible development in the watershed. The meetings are open to the public and were publicly noticed. The Clean Water Program staff participated in all meetings.

Carlsbad Watershed Network - The Carlsbad Watershed Network (CWN) is a group of nonprofit foundations and conservancies, as well as public agencies within the Carlsbad Hydrologic Unit. CWN promotes the well being of the Carlsbad Watershed by providing a forum for discussion, mutual support of member activities, educational programs, and a vehicle to influence actions of all parties in the watershed. CWN prepared the Carlsbad Watershed Management Plan, dated February of 2002. The Carlsbad Watershed Management Plan consists of a description of the watershed, an overview of the important issues, and planned objectives and actions to protect the watershed.

During the reporting period, the CWN members and stakeholders met monthly to discuss watershed issues. Representatives from the Carlsbad Watershed Copermittees attended most monthly meeting, presented an update on Watershed URMP activities, and solicited input from the CWN stakeholders. In addition, at the November 9th, 2005 CWN meeting, the Copermittees presented the findings of the Carlsbad Watershed URMP.

Solana Center for Environmental Innovation - The Solana Center for Environmental Innovation is a non-profit recycling advocate group operating now for over 23 years. They pioneered the first comprehensive curbside recycling program in San Diego County and one of the first community-based recycling programs in the State of California. Ten years ago they changed their focus to community outreach, public education and creating new markets for recycled products. Employees and volunteers of the Solana Center participate in community outreach events and often booth share with the City of Encinitas. The Solana Center offers Master Composting workshops and compost bins at one-third of the retail cost. "Vermaculture," the process of recycling food with worms, is promoted by the Solana Center and free worm bins and free vermiculture training are offered to Encinitas school children. Free 45 minute environmental presentations are also offered to San Diego communities with a variety of topics such as Storm Water Awareness, Pollution Prevention, Healthy Marine Ecosystems, and Household Hazardous Waste awareness. The Solana Center also offers school recycling to qualified schools. "Recycling audits" were performed in Encinitas Schools in FY 05-06 to promote recycling education and awareness. Paper recycling was implemented in all of the Encinitas elementary schools including the District offices, and most schools are also recycling bottles and cans to a degree. A follow-up audit showed one school had used 45% less paper than the previous audit. Recycling programs in the schools are a double benefit in that the school districts save money for waste disposal costs and instill conservation in the children who then take this message home. Secondly, the City benefits through increased public awareness to reduce waste and increase sustainability.

The City of Encinitas sponsored education can be viewed on the Solana Center website at <http://www.solanacenter.org/1encinitascompost.html>. Free home composting and gardening workshops, subsidized compost and worm bins/truckload bins, "The Composter" newsletter, Master Composting training courses and volunteer program, free worm bins for Encinitas schools and many other resources are offered through the City of Encinitas sponsorship. The following table below shows the public participation events hosted by the Solana Center for Environmental Innovation. Some of these events were in collaboration with the City of Encinitas and some were done independently however stormwater pollution prevention, recycling, water conservation, water quality and invasive species messages were presented.

Table 10.3 Solana Center Public Participation Events for FY 05-06

School/Group Name & Address/Location	Date of Presentation /Event	Total number reached
San Diego County Fair -HHW and Composting	6/10/05 -7/4/05	5,000
Encinitas Poinsettia Festival	11/29/2005	
Roots & Shoots, Cardiff Elementary	12/5/2005	20
Ocean Knoll Elementary	12/7/2005	58
Seaside Wisdom for Life School, 1613 Lake Dr., Encinitas	2/2/2006	12
Paul Ecke Elementary, Encinitas	2/9/2006	60
Encinitas, Quail Botanical Gardens: Native Plants, Pesticide Reduction	2/25/2006	15
Encinitas Garden Tour	4/22/2006	220
Torrey Pines Earth Day	4/22/2006	150
Encinitas Street Fair	4/23/2006	300
Creek to Bay Clean Up	4/29/2006	700
Encinitas Poinsettia Street Fair	11/20/2005	250
San Dieguito Academy H.S., Motor oil presentation for auto class	5/30/2006	35
San Dieguito Academy H.S., Motor oil presentation for auto class	4/26/2006	30
Rancho Encinitas Academy, Encinitas	5/5/2006	32
Park Dale Elementary, Encinitas	5/17/2006	61
Enviro Fair San Diego County Fair, Del Mar Fairgrounds Regional HHW	6/11/2006	300
Composting Workshops -2005-2006		
Quail Botanical Gardens	10/1/05	4
Quail Botanical Gardens	11/5/05	22
Quail Botanical Gardens	12/3/05	10
Quail Botanical Gardens	1/6/06	9
Solana Center	2/11/06	17
Solana Center	3/11/06	17
Solana Center	4/19/06	15
Solana Center	5/16/06	10
Solana Center	6/20/06	15
Total Participants		7,362

Southern California Coastal Water Research Project (SCCWRP) - The City of Encinitas is an active participant in the Beach Water Quality subcommittee of SCCWRP. This involvement includes attending meeting, making presentations sharing data and ideas regarding beach water quality. The Clean Water Program receives active program input from the subcommittee involvement.

Total Maximum Daily Load (TMDL) Stakeholder Advisory Group (SAG) – The City of Encinitas Clean Water Program was an active participant in both the Beaches and Creeks, and Lagoon TMDL Strategic Advisory Group (SAG). The TMDL SAG worked with the RWQCB on the development of the upcoming Bacteria TMDL and is preparing a program to characterize the background bacteria levels in local lagoons. The participants in the SAG include members of the RWQCB, City of Encinitas, Port of San Diego, City of San Diego, and City of Laguna Niguel. During this reporting period, the Clean Water Program also participated in the SAG for the TMDL II for lagoons that addresses bacteria, sediment and nutrients.

10.3 Revisions to the JURMP

No JURMP revisions are planned for this component.

11. ASSESSMENT OF JURISDICTIONAL URMP EFFECTIVENESS

11.1 Introduction

This component evaluates the progress of the City's program towards the overall goal of reducing pollutants associated with stormwater and urban runoff. The objectives of the assessment component are to assess the performance of the Clean Water Program, assess the effectiveness of improving receiving water quality, and identify changes that will increase the effectiveness of the program.

The San Diego Copermittees have been working to develop an appropriate effectiveness assessment strategy the urban runoff management programs. The Copermittees prepared a guidance document and submitted it to the RWQCB on October 16, 2003, titled "A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs". This guideline presents a comprehensive assessment strategy that initially focuses on programmatic assessments and moves toward water quality-based assessments to determine program effectiveness. More specifically, it addresses six levels of assessment:

1. Compliance with Activity-based Permit Requirements
2. Changes in Knowledge/Awareness
3. Behavioral Changes
4. Load Reductions
5. Changes in Discharge Quality
6. Changes in Receiving Water Quality

The City has begun adopting this assessment strategy and will be adopting it more fully as the regional program strategy becomes available. This year's assessment is a combination of the strategy presented in the JURMP with the addition of elements of the new strategy. The levels of assessment are combined into four rather than six this year because of the developmental stage of the program. The first level is Level 1: Compliance with Activity-based Permit Requirements, and includes the assessment tables from the JURMP. Level 2 and 3 are combined and discuss the program strengths (accomplishment and outcomes) for each component. Level 4: Load Reductions, is not addressed this year. Level 5 and 6 are combined to present a water quality assessment.

The strategy uses both quantitative and qualitative measure of program effectiveness. Assessment Forms presented in the JURMP were modified in the Level 1 assessment to more closely reflect the appropriate activities performed for each activity and the data from the forms is presented below. This approach provides a means to track the program performance and effectiveness.

11.2 Level 1: Compliance with Activity-based Permit Requirements

The following table summarizes the activities that are tracked by the program to demonstrate compliance with Order No. 2001-01.

Table 11.1 Level 1: Compliance with Activity-based Permit Requirements

Permit Section	Activity	Quantity	Comments
F.1 Land Use	Number of high priority projects subjected to SUSMP projects	14	100% w/ maint. agreements
F.2 Construction	Number of high priority construction sites targeted for inspection	23	
	Number of medium and low priority construction sites targeted for inspection	95	
	Number of high priority construction sites inspected weekly during the rainy season (All sites were inspected, however, formal documentation was provided for 447 inspections)	23	
	Number of medium priority construction sites inspected twice during the rainy season (All sites were inspected, however, formal documentation was provided for 97 inspections)	95	
	Number of facilities referred to RWQCB for enforcement of State General Construction Permit	1	Direct Complaint to RWQCB
	Total number of enforcement actions taken (63 NOV's and 5 citations)	68	
F.3.a Municipal	Number of high priority municipal facilities;	3	
	Number of high priority municipal facilities inspected;	3	
	Quantity of debris and material removed from the municipal separate storm sewer system (MS4):	110 tons	
	• Storm Drain boxes		
	• Sediment, vegetation and debris from channels (652 tons PW + .5 tons Parks + 3.3 tons inserts)	656 tons	
	• Debris from Environmentally Sensitive Areas Total	<u>2 tons</u> 768 tons	
F.3.b Industrial	Quantity of debris and material removed by street sweeping and not allowed into the (MS4)	273 tons	
	Number of high priority facilities identified	3	
	Number of high priority facilities targeted for inspection	3	
	Number of high priority facilities inspected	3	
	Number of enforcement actions taken on facilities	0	
	Number of facilities referred to Regional Water Quality Control Board (RWQCB) for enforcement of State General Industrial Permit; and Number of enforcement actions taken.	0	
F.3.c Commercial	Number of high priority commercial facilities identified	403	
	Number of high priority commercial facilities inspected	126	In addition 32 follow-up inspections were performed.
	Number of enforcement actions taken (28 NOV's and 6 citations, 3 cost recoveries, 16 education actions)	53	
F.3.d Residential	Quantity of HHW materials collected-Household Hazardous Waste Facility	24 tons	
	Quantity of HHW materials collected-Door-to-Door Collection Program	43 tons	

Permit Section	Activity	Quantity	Comments
F.4 Education	Number of stormwater education/instructional materials/brochures (English brochures= 843, Spanish brochures= 674, Posters= 36 + 4 (IPM: pesticides don't stay put posters), Key chains= 26, Pet waste Containers= 160, Click pens= 355, Watershed pencils= 337, Regional commercial guides= 248, Construction brochures= 394, Door hangers= 110, General stormwater brochures= 346, Other (IPM, Encina wastewater, CWN, etc.) = 1863)	5,392	
	Number of stormwater advertisements (24 newspaper articles)	24	
	Number of employees attending training events regarding stormwater principles	94	Engr staff, Planning Commission, City Council, Lifeguards, Department Heads
	Total number of stormwater-related education/workshops/outreach events conducted	11	
	Total number of children educated	2,392	
F.5 IC/ID	Number of dry weather sampling locations monitored	52	
	Number of stormwater complaints/referrals received	150	
	Enforcement actions related to complaints:		
	<ul style="list-style-type: none"> • Notices of Violation • Citation • Cost Recoveries • Educational Actions 	58 11 6 54	
F.6 Public Participation	Number of opportunities provided for public participation	23	Appr. 3,035 members of the public were outreached (in addition Solana Center reached 7,362 Encinitas residents

11.3 Level 2 & 3: Changes in Knowledge/Awareness and Behavioral Changes

This section is broken into each component of the JURMP and presents a summary of the changes in knowledge/awareness and behavior changes. Each section discusses the accomplishment for the component and discusses resulting outcomes. It should be noted that this section is mostly based on observations of City staff.

11.3.1 Land-Use Planning for New Development and Redevelopment

The City has focused on implementing the SUSMP program; requiring SUSMP BMPs on each project that goes through the City system, introducing the requirements at the earliest opportunity, and encouraging developers to use natural BMPs rather than concrete or other structural or mechanical BMPs. The City has successfully integrated the SUSMP process into the overall review and approval processes for ministerial and discretionary projects. At the end of this reporting year the Stormwater Certification was rolled out for all development projects

applying for discretionary permits. Developers and applicants are using the certification; however, the information provided on the certification is not always transferred to the project design so that comments issued during development review and then later during plan checking are still the primary means for ensuring that SUSMP BMPs are designed into projects.

During the current reporting period, the City engineering plan checkers continue to believe that there has been an increase in knowledge and change in behavior over the past year with regard to implementing the SUSMP program. They report much more effective and creative treatment solutions being submitted from the development community. Although these are only observations, they do indicate progress in the SUSMP implementation.

11.3.2 Construction

The City focuses heavily on the construction component, including working with RWQCB staff on complaints and errant sites. This focus continued during the current reporting period, however, it was evident that the level of BMP implementation has increased. This resulted in more BMPs being implemented on construction sites. The City spent less time educating contractors and developers and more time working on details of specific BMP implementation. With more attention to detail, numbers of Notices to Correct Work increased significantly. Improvements made to the construction inspection form have eased the formal reporting burden for inspectors resulting in increased documented inspections, over 90% for high priority sites.

11.3.3 Municipal

All high priority municipal facilities were inspected and were found to be in good order indicating a change in behavior. The MS4 was cleaned including catch basins, problem pipes, channels, and detention basins have become a regular part of the Public Works Department activities. An integrated pest management program (IPM) program has implemented by Community Services Department who is responsible for the maintenance of City parks and properties.

11.3.4 Industrial

All industrial facilities' personnel were knowledgeable about stormwater issues and BMPs. Facilities were in compliance or BMPs were implemented to come into compliance.

11.3.5 Commercial

The City's full-time inspector conducted a total of 126 commercial inspections and 32 follow-up inspections. The Administrative Citation program was successfully implemented and has improved the enforcement process. Continued improvements in the stormwater GIS and data management system have streamlined the commercial inspection process. Staff now have the stormwater GIS available on their desktop computers to view facilities and property information. The grease program continues to be implemented and several new and remodeled restaurants installed grease traps or interceptors during the current reporting period. This effort has reduced the amount of grease-related private lateral sewer overflows. Two assessment questions were added to the Commercial Inspection Form so that in future years the Clean Water Program can track the amount of stormwater awareness and BMP implementation at commercial facilities.

11.3.6 Residential

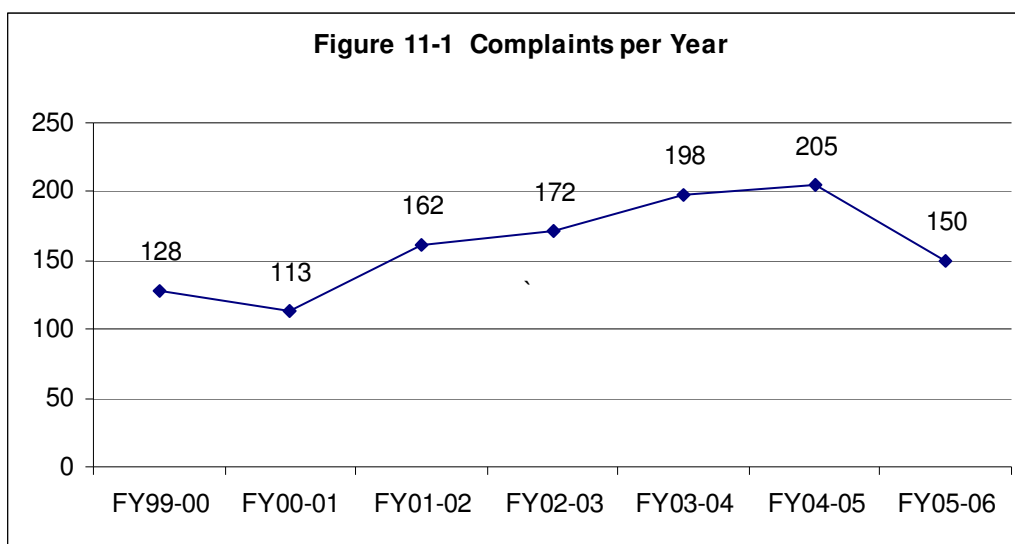
The City of Encinitas provides a wide range of programs for its residents to allow for convenient pollution prevention. Residents seem to be more aware of stormwater issues as complaints in residential areas continued to increase. This awareness did not, however, translate into a willingness to pay for the Clean Water Program as evidenced by the Clean Water vote. A mail out survey reported that 72% of the households considered clean water a high priority, however, in the final tally only 39% voted in favor of paying a \$5 per month Clean Water Program Fee.

11.3.7 Education

This year the City again increased their education of school children this year. The total approximation of students that received environmental education during the fiscal year 2005-06 is 2,392.

11.3.8 Illicit Discharge Detection and Elimination

The stormwater program continued efforts to respond to complaints and referrals in the IC/ID component. As shown in Figure 11.1 the number of complaints appears to be lower for the fiscal year.



The dry weather program was performed by in-house staff and included a significant amount of testing and data analysis. The City has successfully evaluated water quality on a sub-basin level, correlating number of complaints with water quality exceedances to better understand where efforts are needed.

The City continues to have good success implementing the Administrative Citations program that reduces the administrative time involved in issuing fines for water quality violations. One major accomplishment has been that all new and major tenant improvements for restaurants are now required to install grease removal equipment (trap or interceptor). Again this year, several new and remodeled restaurants were required to install grease traps or interceptors. This program should reduce the number of private lateral overflows due to grease blockages.

11.3.9 Public Participation

The City increased its public participation opportunities during this reporting period through conducting events and through being involved in stakeholder groups such as the Carlsbad Watershed Network and the Escondido Creek Watershed Cooperative group. The process of preparing for the Clean Water Vote also greatly increased the public response to the Clean Water Program.

11.3.10 Fiscal

The City examined its fiscal expenditures from the standpoint of program efficiency. Each component and its respective expenditure was reviewed and qualitatively assessed as to how effective the expenditures were, see Table 11.2. This review is subjective, but serves to focus efforts in the most effective manner.

Table 11.2 Fiscal Review for Program

Effectiveness Category	Cost 03-04	Cost 04-05	Cost 05-06	Specifics	Assessment	Comments
Municipal	67%	64%	61%	staff time, PP/recycling/HHW, trash removal, inspections, inserts, storm drain replacement, MS4 and channel maintenance, and street sweeping	Improves water quality but at higher cost	Maintenance cost will continue to rise as more permits are obtained and channels are maintained
Industrial	1%	1%	1%	3 sites	Overlapping program with State	Not efficient use of money, little benefit to water quality
Commercial	9%	7%	6%	126 inspections were performed of the 403 total sites	Productive	Follow up reduces the total number of inspections but improves compliance
Land Use Planning	1%	1%	1%	All development plans	Excellent program	Removes pollutants
Construction	4%	15%	17%	Weekly inspection reports	Strong program	Maintains disturbed soil on property
IC/ID	7%	6%	6%	Dry weather, investigations, UV, Special studies, coastal & lagoon	Excellent program	Discovers new and potentially threatening water quality exceedances in a timely manner
Education	3%	4%	3%	Educational materials, workshops, outreach events, training	Excellent program	Educate the children while they are developing their value system.
Special Investigations	1%	1%	1%	Multiple projects	Excellent studies	Would like to offset special studies with grants
WURMP	2%	1%	1%	Includes each cities cost in the Carlsbad Watershed	Excellent coordination	Strong watershed approach more helpful than regional
Reporting	4%	3%	3%	Includes WURMP & JURMP	Overwhelming	Needs to be streamlined
Legal Fees	2%	0%	0%	Internal & external attorneys		

11.4 Level 4: Load Reductions

The City began computing loads assessment for the high priority COCs, bacteria and sediment, from a limited number of activities for this annual report. The annual bacteria load reduction at the UV Treatment Facility is calculated to be 4.4EXP13 (44,000,000,000,000) (CFU/year) for Total coliform, 3.9EXP12 (CFU/year) for fecal coliform, and 2.1EXP12 (CFU/year) for Enterococcus based on calculations from the influent to the outlet of the UV facility. The sediment load was reduced by 656 tons per year (652 tons from channels and detention basins, 0.5 tons from the Cottonwood Creek pond, and 3.3 tons from inlet filter inserts).

11.5 Level 5 & 6: Changes in Discharge and Receiving Water Quality

A Level 5 & 6 long-term effectiveness assessment strategy was performed on a regional basis as part of the Waste Discharge Requirements as part of the NPDES Permit re-issuance was submitted to the RWQCB in the fall of 2005. The assessment portion was developed and reported in a document titled the Long Term Effectiveness Assessment. This document is discussed in the Regional Unified Urban Runoff Management Program Annual Report.

The City has been looking at water quality as a means to better understand the priority problems in the City and to assess its jurisdictional program effectiveness. Data available for this type of analysis includes historical dry weather monitoring data and beach posting data. The following section provides an overview of the City's water quality assessment.

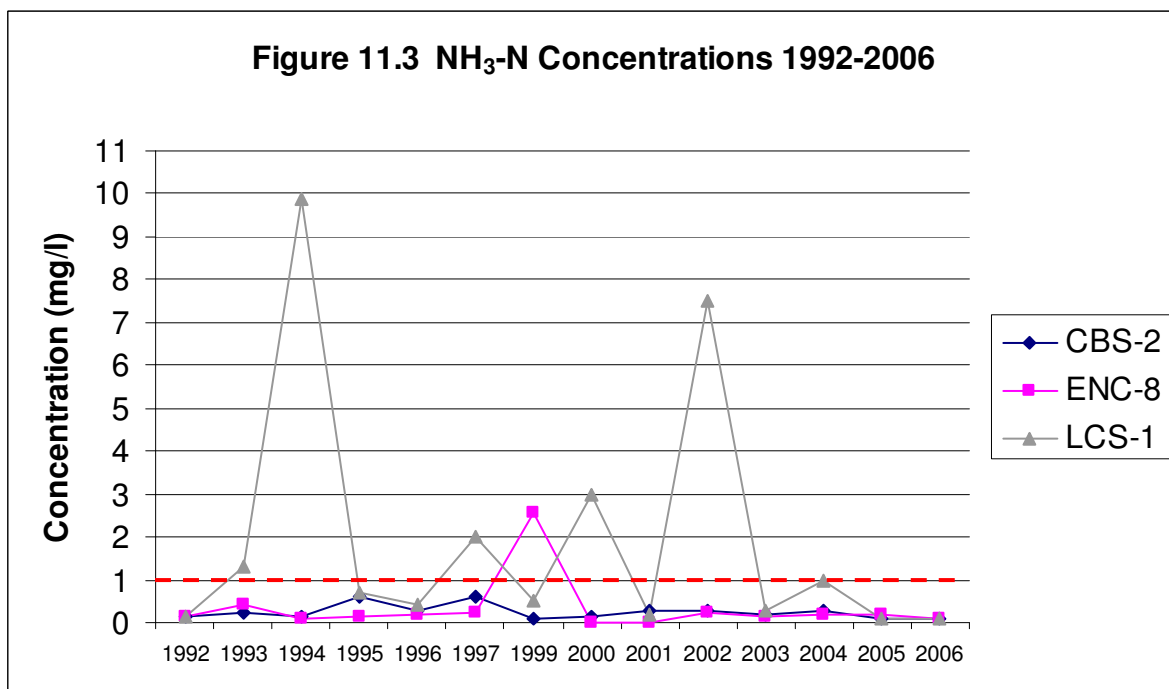
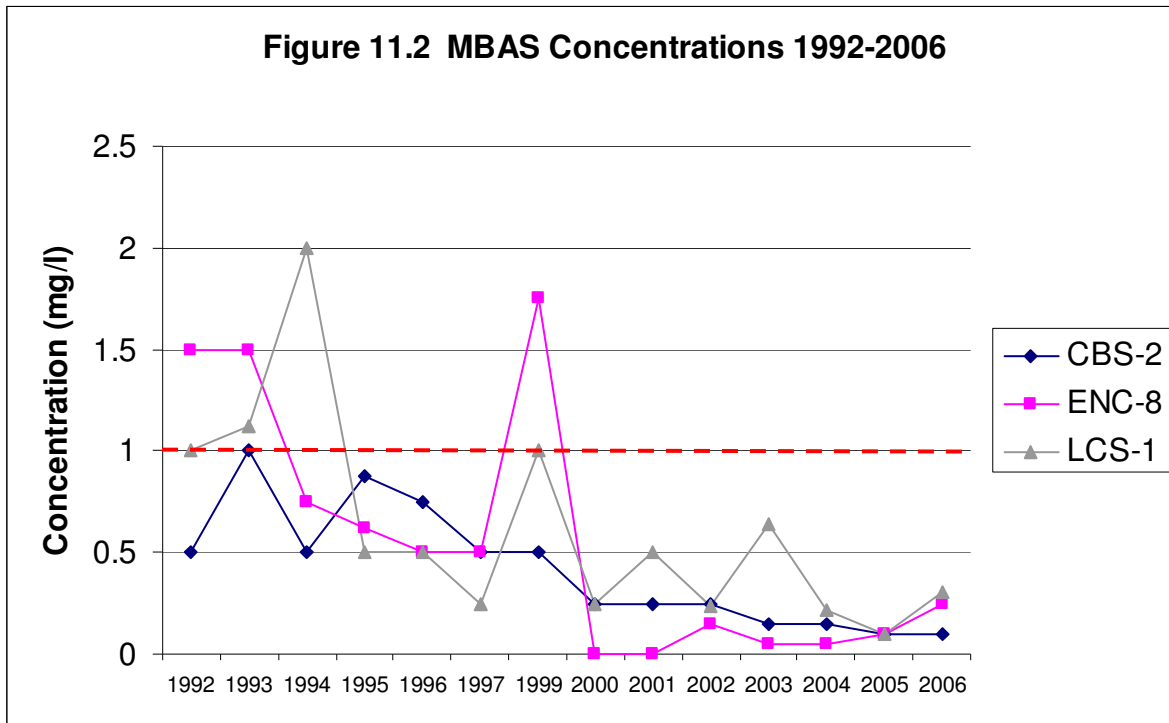
11.5.1 Dry Weather Data

The City has collected dry weather data since 1992. In 2006, a total of 52 stations were monitored, including ten that have been monitored since 1992. The constituents monitored are limited in the historical data; however, the City has maintained these sites in the monitoring program so that 13 years of data have now been collected. The sites generally represent locations low in the sub-basin. The most pertinent available long-term data that can be used for assessment purposes includes MBAS and Ammonia. MBAS represents a measure of surfactants often found in soaps that may result from car washing or other general wash down operations. Ammonia is produced largely by the breakdown of organic nitrogen-containing compounds and urea (urine). The presence of high concentrations of ammonia may indicate a nitrogen source in the form of fertilizers, a wastewater source such as an illegal sewer connection, or a direct source of urine possibly from encampments or pet waste.

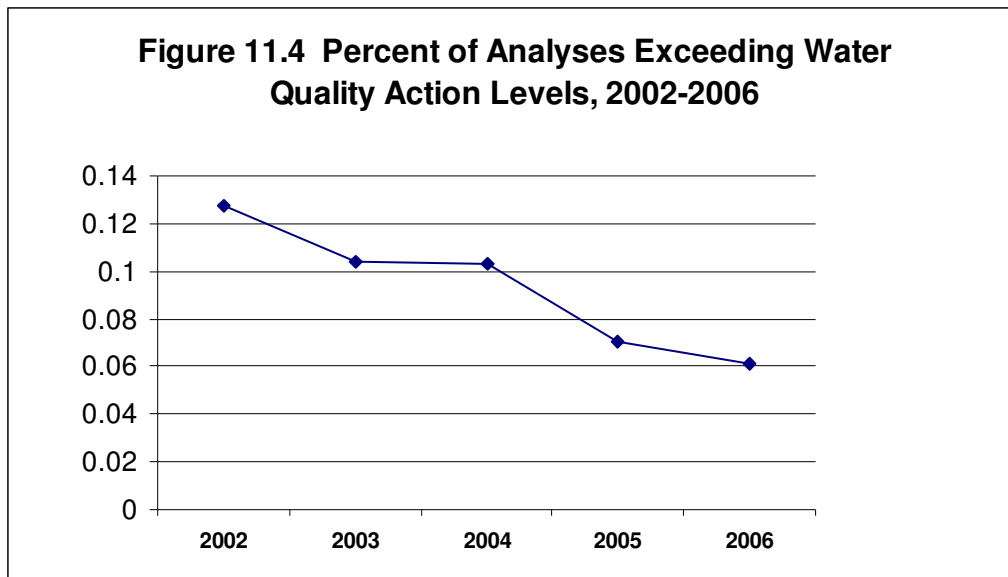
Figures 11.2 and 11.3 show historical data for MBAS and ammonia at three monitoring sites. CBS-2 is located on what was at one time Rossini Creek, but is now the 101 Channel, a storm drain channel adjacent to Highway 101 near San Elijo Lagoon. CBS-2 captures flow from the residential and commercial areas of Cardiff in the southern part of Encinitas. LCS-1 is located on Encinitas Creek at Gardenview and El Camino Real. This site drains residential areas and the main commercial area of Encinitas along the El Camino Real corridor. The third site is ENC-8 located on Cottonwood Creek at Third and B Streets in the older part of Encinitas. The drainage to ENC-8 is the Cottonwood Creek sub-basin, encompassing residential and commercial land uses, and a new park.

These figures show long-term reductions of both MBAS and ammonia have occurred over the thirteen-year data period. Since these are anthropogenic pollutants, the reduction is attributable to increased public education and enforcement because of the City's active stormwater

program. Although MBAS levels did increase slightly in 2006, the levels are still well below action levels and the overall trend is still downward.



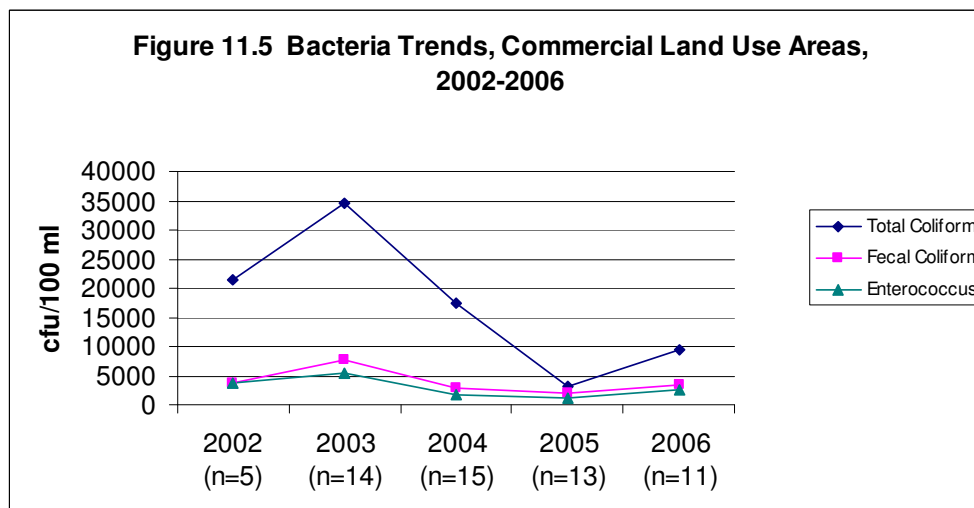
In addition this year, the City can show an overall decrease in the total percentage of exceedances in the dry weather testing as shown in Figure 11.4 for the period of compliance with Order 2001-01. Each point on the graph represents over 350 analyses.



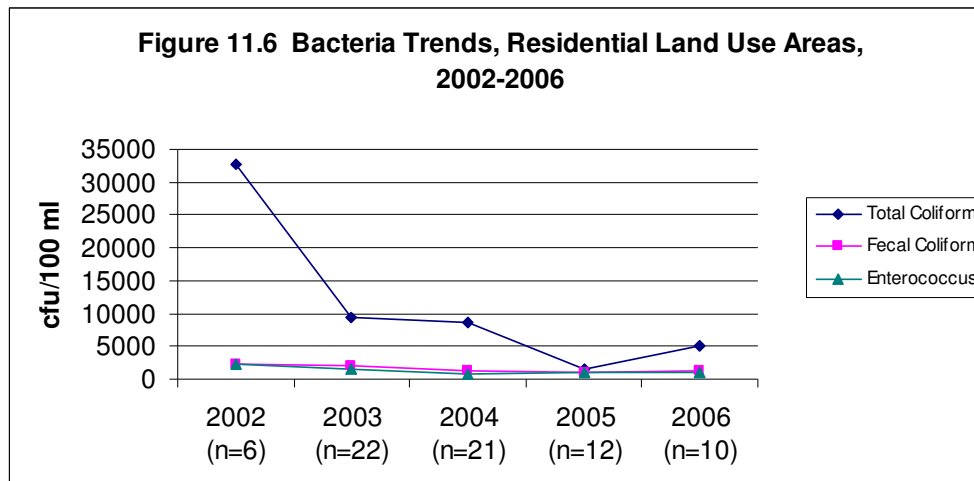
11.5.2 High Priority Constituents of Concern

Bacteria and nitrate-nitrogen remain high priority COCs in the area. Each contributes to water quality degradation in the receiving waters. This is validated by the fact that several receiving waters in the area are 303(d) listed for bacteria and nutrients. Conductivity has increased in priority over the monitoring periods due to a rising trend in recent monitoring. COCs that have decreased in priority over the monitoring periods include ammonia-nitrogen and MBAS. Diazinon and dissolved copper were removed from the COC list because of lack of exceedances.

Based on this assessment, particular attention has been paid to bacteria and nitrates to identify and eliminate their sources. The City has focused efforts on inspection of commercial facilities and bacteria concentrations have been trending downward over the five years of data collection in the dry weather program. Although a slight increase in all indicator bacteria (total coliform, fecal coliform, and enterococcus) concentrations was measured in 2006, the five-year trend from 2002 to 2006 is showing decreasing bacteria trends in commercial areas, as shown in Figure 11.5.



Similar trends are observed in data from residential areas, as shown in Figure 11.6. Overall decreasing trends were evident across all three indicators from 2002 to 2006. This downward trend is likely the result of public education and ICID efforts by the City.



11.5.3 Watershed Sub-basins Assessment

The City of Encinitas has eight watershed sub-basins. (See Appendix H-1) Each sub-basin flows to one of three coastal water bodies: San Elijo Lagoon, Batiquitos Lagoon or the Pacific Ocean at Moonlight State Beach. With five years of enhanced dry weather monitoring data, a preliminary assessment can be made of the water quality changes that have occurred within each sub-basin. By accumulating data in each sub-basin, the City is able to follow-up on trends, report on improvements and correct exceedances at the time of sampling.

The Encinitas Sub-basin has consistently had over 15% exceedances in the dry weather programs. In 2005 and 2006, the exceedance rates were 5% showing significant improvements in water quality in the sub-basin. Steady improvements in water quality are also evident in the Cardiff and Rancho Santa Fe Sub-basins. In 2006, there were no exceedances in the Lux Canyon, Rancho Santa Fe and Lower Escondido Creek Sub-basins. Exceedance percentages in the Leucadia Sub-basin are over 10% in 2006 largely due to exceedances from groundwater seeping into the MS4.

11.3.3 Coastal Water Quality

The Pacific Ocean and lagoons (Batiquitos and San Elijo) are considered to be the ultimate receiving water for the City although there are other intermediate receiving waters, such as Escondido, Cottonwood, and Encinitas Creeks. However, at this point a distinction has not been made between the creeks and the MS4 in the dry weather testing. To measure the quality of the final receiving waters and assess JURMP effectiveness, the City has monitored coastal storm drain outfalls along the beach and in the lagoons. Another measure of water quality in the City is the number of beach postings due to elevated bacteria from storm drains.

Coastal and Lagoon Storm Drain Outfalls

For the fifth year of the Coastal Monitoring Program the Clean Water Program continued to implement the adaptive monitoring approach as designed by the Copermittee Coastal

Monitoring Workgroup. This program allows the City to focus resources to improve water quality and emphasizes non-problematic areas less. During the 2005-06 reporting period, monitoring continued at six storm drains discharging to San Elijo Lagoon. The storm drains monitored do not appear to have a detrimental effect on the receiving waters as the bacteria levels in the lagoon.

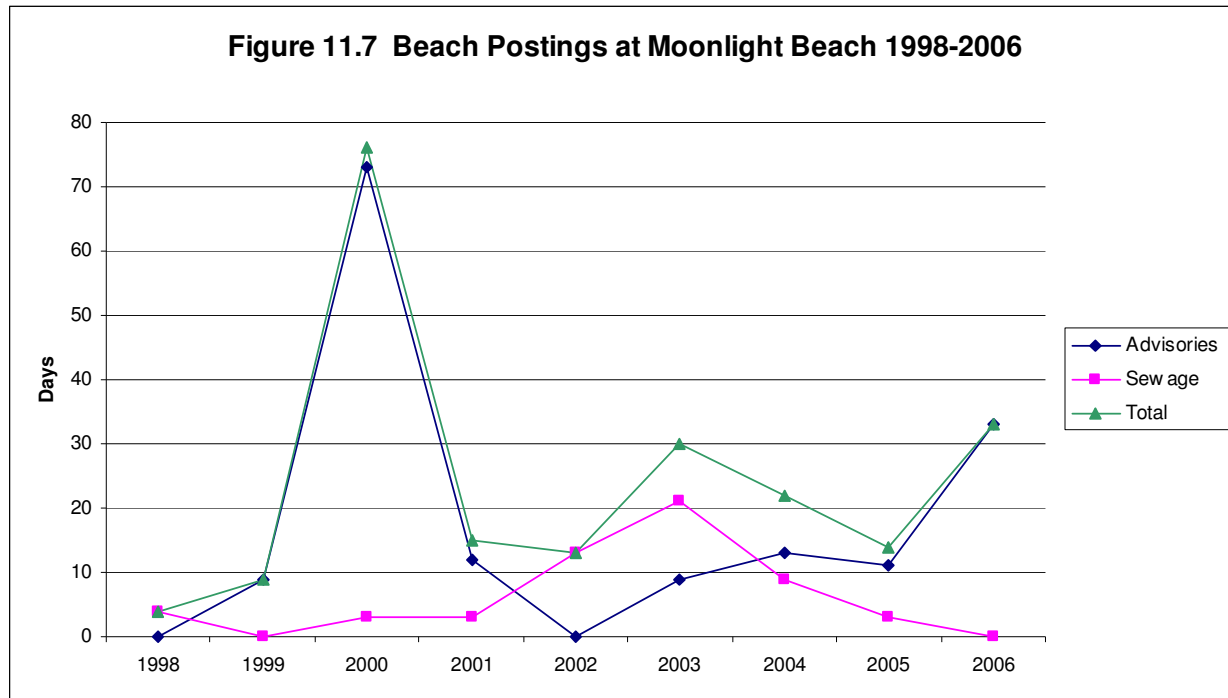
Three exceedances were noted at CBS-1, CBS-2, and EH-420. At CBS-1, there is no connection between the storm drain and receiving water and the bacteria results in the storm drain were well below 95th percentile action level criteria. At CBS-2 there was no observed effect on the receiving water and the exceedance was transient in nature, no further action was taken. At EH-420, follow-up confirmation samples in the receiving water were less than AB411 standards, suggesting a transient source of bacteria. Frequency of bacteria sampling increased and was conducted nearly every week day during the summer of 2006 and a sample location up-current of the creek mixing zone was added to the monitoring. An ultra-violet treatment facility has been in operation at the creek mouth for over three years and is removing all bacteria and pathogenic organisms entering the mixing zone from the watershed. It has been documented that bacterial re-growth is occurring downstream of the facility which causes the creek bacteria concentrations to rise. Upstream source investigations and inspections occur on a continual basis in the drainage basin.

Many sources of bacteria have been identified and studies at the Cottonwood Creek outlet at Moonlight Beach including: birds, wrackline, sediment, and the creek discharge itself. On several of the sampling occasions where exceedances were recorded, more than 100 birds were present at the time of sample collection. With the summer often comes increased amounts of wrackline (i.e. kelp) on the beach and in the creek mouth and this has been shown to cause elevated bacteria concentrations in the mixing zone. The kelp, coupled with nutrient rich, warm freshwater from the creek, has been shown to act as a natural incubator for bacterial amplification. Sediments and sand at the creek mouth have also been shown to be a source of bacteria and bacterial amplification and may have contributed to exceedances in the mixing zone. The creek flows also may be contributing to bacterial exceedances in the surfzone. Although at all times the bacteria concentrations in the creek were well below 95th percentile concentrations, it is possible that the creek caused exceedances in the surf zone. However, on occasion the exceedance occurred in samples up-current from the creek mouth, suggesting sources other than the creek itself.

Beach Posting Data

The County Department of Environmental Health has monitored beach water quality for bacteria since the 1950s. This sampling is used to assess the health of the beaches. In 2000 there was a significant change in the protocol as a result of the passage of AB 411. AB 411 requires additional testing, testing of a third bacteria indicator (enterococcus), and requires the beach to be posted when only one sample exceeds the standard. When bacteria levels exceed State standards, the County posts the beaches with advisory signs warning of contaminated water and advising the public to not go in the water. The beaches are also closed in the event of a sewage spill in the watershed that might contaminate the beach.

The City tracks the number of advisories (postings) and closures along its shoreline. Advisories (postings) and closures are generally located at Moonlight Beach at the mouth of Cottonwood Creek and at the San Elijo and Cardiff State Beach at the mouth of the San Elijo Lagoon. A graph of the postings and closures at Moonlight Beach is shown in Figure 11.7.



A sharp increase in the number of postings was noted in 2000 when the receiving water standards were made more stringent with the introduction of AB411. The number of postings was reduced significantly in 2001, which was a very dry year. In 2001, monitoring procedures were also changed to collected samples 25 yards downcurrent from the outfall, as opposed to the previous monitoring location at the point of mixing between the outfall and the receiving water. This likely contributed to the downward trend in beach advisories. In 2002 there were no advisories after the installation of the Urban Runoff Treatment Facility (UV Treatment Facility) on Cottonwood Creek, just east of Moonlight Beach. Advisories increased slightly from 2003 through 2005 and more significantly in 2006. Some possible explanations for this increase are:

- Inconsistencies in testing methodologies between agencies
- Sediment in the water sampler containers
- Increased monitoring at Moonlight Beach
- Increase in ocean and creek water temperatures
- Increase in number of shorebirds
- Regrowth in creek channel
- Kelp and trash in the high tide line

12.0 FISCAL ANALYSIS

The Clean Water Program in the City of Encinitas is split into two areas: Engineering Services and Public Works. Engineering Services administers, plans, monitors, implements, enforces, inspects, and provides education related to stormwater. Public Works performs the operations and maintenance of the municipal separate storm sewer system (MS4). This section outlines the budgets for these two areas.

12.1 Engineering Services Department

During the FY 2005-06 the following budget was spent by the City of Encinitas to implement the adopted Stormwater Permit (Order 2001-01). The City's Clean Water Program staff also completes the Coastal Storm Drain Monitoring, Dry Weather Monitoring, IC/ID, and Construction, Commercial and Residential programs in house. The program is managed in a cost-effective manner by absorbing the labor cost in salaries in-lieu of contractor services. By training City staff the knowledge and expertise of the waterways is maintained within the City. The City has two and a half full time staff that are required to keep the City in compliance with the permit. Table 12.1 provides a summary of the Clean Water Program expenditures for FY 2005-06 and budget for FY 2006-07.

Table 12.1 Engineering Clean Water Program Budget Summary For FY 2005-06

Category	FY05-06 Expenditures	FY06-07 Budget
Staff Salary	\$218,764	\$265,438
Vehicle	*	*
Permit Fees(SWRCB & Copermittee fees)	\$35,509	\$37,009
Municipal Programs	\$36,760	\$41,900
Industrial	\$0	\$0
Commercial Program	\$5,625	\$10,625
Land Use Planning	\$5,625	\$5,625
Construction Programs	\$150,000	\$150,000
IC/ID Program	\$21,907	\$22,877
Education	\$5,492	\$2,813
Special Investigations	\$8,577	\$8,625
Watershed Urban Runoff Management	\$5,625	\$9,155
Reporting (URMP Annual Reports)	\$14,062	\$14,062
Grant Writing	\$0	\$0
Legal Fees	\$0	\$0
TMDL – Lagoons & Beaches	\$0	\$1,500
GIS Mapping	\$64,480	\$24,000
Supplies/Travel/Equipment	\$8,896	\$9,501
TOTAL COSTS	\$581,323	\$603,130

* Vehicle replacement funds have been moved to another fund

12.2 Public Works - Operations and Maintenance

Public Works	Actual	Revenue Source	General Fund
Staff	\$289,139		\$289,139
Materials & Supplies	\$12,842		\$12,842
Contracts & Services	\$220,579		\$220,579
Fleet Maintenance	\$19,053		\$19,053
Capital Outlay	\$5,614		\$5,614
Lease Payments	\$27,000		\$27,000
Recycling/Solid Waste & Household Hazardous Waste Fund	\$543,702	\$543,702	0
Recycling Programs	\$42,000	\$42,000	0
Flood Control	\$48,897		\$48,898
Total Public Works	\$1,189,774	\$710,702	\$623,125
Engineering Clean Water			\$581,323
TOTAL COST			\$1,204,448

Street Sweeping (\$37,504). The Gas Tax (TransNet) is collected by the state and allocated to local government for transportation-related work including maintenance of existing transportation systems (e.g. roadway sweeping, culvert cleaning) and construction of new transportation facilities. These funds may not be used for other purposes. The City offsets this expenditures from the Gas Tax by \$125,000 therefore the total to the program costs are \$37,504. The total budget for Street Sweeping is \$162,504.

Stormdrain/NPDES (\$477,025) – General Fund. This program includes four and a half full time staff personnel to clean catch basins, televise the storm drain system and respond to emergency operations. Complaints regarding ponding or nuisance water in the storm drain system are handled by this department. This fund also includes channel maintenance and detention basin cleaning. Equipment necessary to clean the storm drain system such as the VACCON plus staff vehicles are also included in this fund.

As more BMPs are constructed throughout the City or as part private development project, it is expected that the maintenance efforts will increase. Budgeted expenditures are based on the design of one regional treatment BMP per year, including planning, right-of-way, design, construction and maintenance cost.

Recycling/Solid Waste & Household Hazardous Waste Fund (\$ 0) – Trash fees

This program includes Solid Waste disposal, recycling, household hazardous waste, electronic waste, Annual Community Clean-up and other expenses related to the disposal of solid waste. The total cost of these programs is \$543,702 and all of these costs are offset by grants and fees.

Recycling (\$0) – Trash fees. The program includes the annual Christmas tree recycling and public education, compost bin sale and other recycling programs. The community grant funds offset all the costs.

Flood Control (\$48,898) – Concrete and miscellaneous repairs.

Public Works Total Budget (\$1,189,774)

This is the actual total budget for the Public Works Department to accomplish the goals of the NPDES permit Order No. 2001-01. The Public Works Department receives grants, trash fees and gas tax revenue sources to help offset the costs to the general fund. By accounting for the offsets in revenue sources the actual cost to the general fund is **\$623,125.**

12.3 Total Program Budget

The total expenditure for the Clean Water Program is **\$1,204,448** for the Fiscal Year 2005-06. The total projected budget for the Clean Water Program is **\$1,226,255** for the Fiscal Year 2006-07.

12.4 Program Funding

The City Council attempted to pass a Clean Water Fee in FY 2003-04, which charged \$5.00 per month per water meter to the residents and businesses of Encinitas. The Howard Jarvis Taxpayers Association challenged the Clean Water Fee based on Proposition 218 requirements. The City was required to add this item to the ballot in March 2006 which was defeated. Unless a Regional approach to collecting fees is established the City of Encinitas must completely subsidize the Clean Water Program through the General Fund.

13.0 SPECIAL INVESTIGATIONS

The City of Encinitas strives to understand and improve water quality issues within its waterways. To this end, several special investigations and projects were undertaken during the reporting period.

13.1 Moonlight Beach Urban Runoff Treatment Facility

The City of Encinitas has been operating the Moonlight Beach Ultraviolet Treatment Facility since August 29th, 2002. The overall project has been a true success; the City has reduced the bacteria levels entering the Pacific Ocean at Moonlight State Beach and bacteria levels through the facility are consistently reduced by 99%. Beach postings have been reduced by an average of 90% per year for the two years that facility has been in operation.

The Moonlight Beach Urban Runoff Treatment Facility draws water from Cottonwood Creek inside an existing concrete double-box culvert. It is diverted to a wet well and pumped via two, alternating 7.5 HP, float-controlled submersible pumps to the UV treatment facility. After pre-screening at the wet well intake, a second stage of screening is provided by two basket strainers. Water is then filtered through two dual media (sand and anthracite) pressure filters. The disinfection unit consists of two UV disinfection chambers approximately 48 inches in length and 8 inches in diameter. Each chamber has four low-pressure, high intensity UV lamps.



The system is operated from a programmable logic controller (PLC). System controls are set to shut the entire system down on three operating conditions: high level in the wet well, high pump discharge pressure, and high effluent turbidity. Treated flow is returned to Cottonwood Creek inside a second portal of the concrete box culvert. The entire treatment facility is housed in a 24 feet long, 10 x 10 foot prefabricated steel enclosure.

In February 2006, the City of Encinitas completed the final report to the State Water Resource Control Board, Clean Beaches Initiative Grant. In order to monitor the effectiveness of the UV Facility two assessment methods were used: water quality monitoring and beach posting data. The City routinely monitored the concentrations of bacteria at three locations in Cottonwood Creek and in the mixing zone at the creek mouth. Samples were collected above and below the facility, and before and after project implementation. Monitoring locations include influent, effluent, the mouth of Cottonwood Creek, and the Moonlight Beach mixing zone. Approximately 160 routine sampling events occurred during the monitoring period.

Bacteria removal efficiencies through the UV Facility were calculated at >99% based on 153 pairs of influent and effluent samples. Through weekly bacteria monitoring and a special study, the City determine that additional sources of bacteria and regrowth contributed to the degradation of water quality downstream of the facility. However, the overall removal efficiency from the facility influent to the creek mouth was measured at approximately 50%. Monitoring also showed an improvement of water quality in the mixing zone as measured by changes in

exceedances of AB411 standards. AB411 exceedances were reduced from 9.4% prior to the project to 4.8% after the project representing nearly a 50% reduction in exceedances in the mixing zone. A full copy of the report is included and can be found on the Clean Water Program website at [http://www.ci.encinitas.ca.us/NR/rdonlyres/5612D387-D6D9-48A7-AF7F-A9D039C78547/0/Moonlight Beach Urban Runoff 030806.pdf](http://www.ci.encinitas.ca.us/NR/rdonlyres/5612D387-D6D9-48A7-AF7F-A9D039C78547/0/Moonlight%20Beach%20Urban%20Runoff%20030806.pdf).

13.2 Clean Water Vote

In 2005, the City imposed a \$5 monthly fee for providing stormwater protection services. The City was challenged by Howard Jarvis Taxpayers Association for institution of a fee or tax without voter approval (Prop 218). As part of the settlement agreement the city agreed to discontinue collecting the fee and to submit the fee to a vote of property owners. In response, the City hired consultants to survey the public regarding the importance of the Clean Water Program. In the initial survey, protecting water quality was the most important issue ahead of traffic and crime concerns. Support for the measure was 63% at the first ballot test. Following is a summary of public meetings:

- November 30, 2005 the Council adopted resolution 2005-64 initiating proceedings for Property Owner mailed Ballot Election to establish a Clean Water Regulatory Fee
- December 1, - Notice of Public hearing mailed to all property owners
- December 14 – Council approves ballot language
- January 18 – Public Hearing regarding Proposed Ballot Proceeding
- January 19 – Ballots Mailed to all Property Owners
- March 7 – Final date for City to receive ballots
- March 8-10 – Tally of Votes

Also in November the City sent a two-way mailer (Appendix J-1) to all Encinitas households to raise awareness regarding the Clean Water Program and asked for input on the response cards. Further community input activities included an informative website and stakeholders meetings. The mail out survey reported that 72% of the households considered clean water a high priority.

Between January through March campaign information was distributed throughout the City in the forms of signs, mailers and newspaper articles. At the same time a negative campaign was launched that claimed the residents were being taxed twice.

In March, the City mailed out 19,000 ballots along with an informational Questions and Answers Document (Appendix J-2). Ballots were due on March 7th, 2006. The final tally showed that 61% voted against the Clean Water campaign and 39% voted for Clean Water Program. On May 31, 2006 the City mailed a refund check to each property owner in Encinitas for the prior year of assessment.

13.3 Beach Usage and Economic Value Studies

Encinitas is a beach community that is economically tied to its coastal resources. In the past few years, the city has contracted and performed studies to quantify the value of the beaches to the local economy. In general, this is computed by determining the number of people attending the beach on a daily basis and then determining the average amount of money people spend at the beach daily.

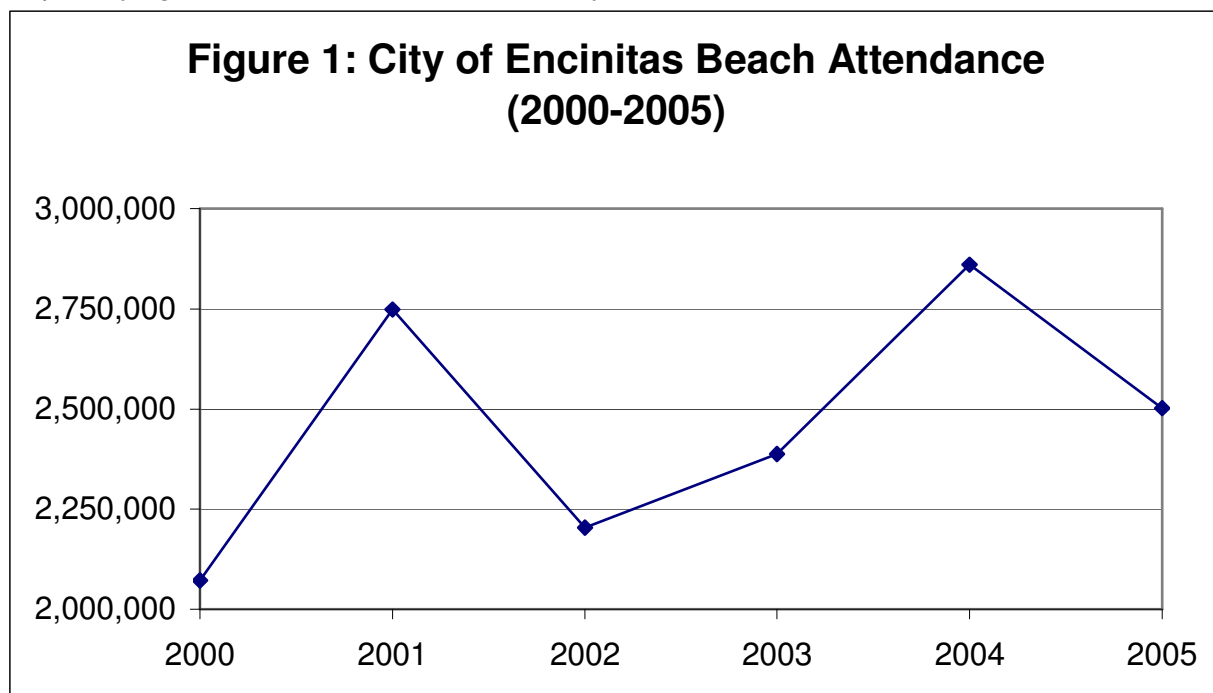
This study began in May 2003, when the city of Encinitas began installing “people counters” at the more highly frequented beaches within the city in order to better quantify the volume of visitors the City’s beaches attract during a given year. The program was expanded during the current reporting period (2003-04) and additional analysis was performed. These counters, which log and store data on hourly basis, are currently installed at seven beach access points within the city. At these study sites it was found that over 2,000 people per day visited single access points during weekends in early August. Monthly and annual reports can be found at the City of Encinitas website in the Engineering Department/Coastal Zone Management Section.

Table 13.1 Annual Beach Attendance, City of Encinitas

Year	Beach Attendance
2000	2,071,430
2001	2,747,705
2002	2,204,287
2003	2,387,400
2004	2,860,096
2005	2,502,345

13.3.1 Beach Survey Results: Beaches Economic Significance

This calculated value of approximately 2.5 million in 2005 is less than 2004 recorded annual attendance approximations for the City of Encinitas (Figure 1). Attendance in 2004 was calculated using the electronic counter methodology. Previous annual attendance values were derived from lifeguard counts whose methodology was known to be flawed. The non-subjective nature and 24 hour counts obtained with the counter system gives a more analytical approach to quantifying beach attendance within the City.



13.3.2 Economic Evaluation

An economic evaluation was performed based on survey data collected during the 2005 calendar year by City staff. Locations surveyed include San Elijo State Beach and Moonlight Beach. This survey found that 85% of the people surveyed were visit from outside of Encinitas leaving only 15% of beach visitors actually residing in City of Encinitas.

Using economic value amounts of a beach day for a typical visitor and resident (\$22 and \$8, respectively), derived from Army Corps of Engineers and Dr. Phillip King studies, an annual economic value of City beaches were estimated as follows:

Annual Value from Residents:

15% (2,592,345 annual visitors) = 375,352 visitors from Encinitas
375,352 visitors from Enc (\$8.00) = \$3,002,816 dollars from locals

Annual Value from Visitors:

85% (2,592,345 annual visitors) = 2,126,993 visitors from outside Encinitas
2,126,993 visitors from outside Enc (\$22.00) = \$46,793,850 dollars from tourists

Total = \$49,796,666 dollars from beach visitors

13.4 Cottonwood Creek Bacteria Study

Investigations into bacteria sources in the Cottonwood Creek Sub-basin continued this year with a focus on the lower portion of the creek. Historically, bacteria have been elevated in the upper and middle reaches of the creek. Years of source investigations and elimination have resulted in lower bacteria concentrations but have not completely eliminated the problem. The City implemented the Ultra-Violet (UV) Treatment Facility in September 2002 in order to eliminate the bacteria in Cottonwood Creek prior to its discharge to the Pacific Ocean at Moonlight Beach. This system has been effectively removing 99.9% of the bacteria in the creek. However, elevated bacteria levels occasionally persist in the creek water as it enters the Pacific Ocean.

In the fall of 2003, the City began an in depth study of the possible bacteria sources between the UV Facility and the creek outlet at Moonlight Beach. The study area was divided into three reaches, each with specific sources of bacteria isolated. Staff collected 15-20 bacteria samples in the study area and analyzed for total and fecal coliform and enterococcus. Possible sources of bacteria include: one storm drain, one groundwater dewatering pipe, natural sources, regrowth, debris in the creek, wrackline, birds, and homeless encampments. The study is ongoing, as the City is attempting to observe seasonal changes in the bacteria concentrations.

Preliminary results show that there is significant bacteria entering the creek to the west of all storm drain pipes (Reach 3). The samples in Reach 3 are collected as the creek water flows across the sand and may be contaminated by the wrackline on the beach and/or birds on the beach. Future sampling and analysis will allow better isolation and source identification. The study is ongoing, with five rounds of sampling accomplished to date.

With completion of the ultra-violet facility in late August 2002, 85% of the dry weather flows in Cottonwood Creek are rendered free of bacteria and re-introduced to the creek downstream of Third Street. However, through weekly bacteria monitoring, as prescribed for the UV Treatment Facility, the City has determined that additional sources of bacteria are contributing to the degradation of water quality to the west (downstream) of the Facility.

Although beach postings were reduced with the implementation of the UV Facility, there continues to be periodic exceedances of State water quality standards in the mixing zone. After approximately one year of data collection, the City has observed occasional elevated bacteria concentrations at the mouth of the creek and in the mixing zone, while obtaining nearly 100% bacteria kills in the water entering the treatment facility. Over the first year of data collection, there were seven AB411 exceedances in the mixing zone while the UV Facility was in operation. One of the seven was for fecal coliform while six of the exceedances were for enterococci concentrations.

The percent reduction in bacteria in the treated creek water is greater than 99% for all three indicator bacteria. However, overall reduction in bacteria from the UV Influent (monitoring location 1) to the mouth of Cottonwood Creek (monitoring location 3) is not as large. Table 13.0 summarizes the percent reduction in bacteria concentrations from the influent (location 1) to the mouth of Cottonwood Creek (location 3), prior to entering the Pacific Ocean.

Table 13.2 Bacteria Removal Efficiencies from Influent (n=153) to Creek Mouth (n=146), Post Start-up		
Total Coliform	Fecal Coliform	Enterococcus
48.49%	43.65%	51.48%

Because of these spikes in bacteria concentrations in the mixing zone, the City of Encinitas initiated this study to further understand the bacteria influences in the western portion of Cottonwood Creek. This special bacteria study consisted of five intensive monitoring events from October 2003 to December 2004 in an effort to characterize possible bacterial sources impacting water quality in Cottonwood Creek downstream of the UV Treatment Facility, prior to discharge to the Pacific Ocean.

The distance from the UV Facility to the beach is approximately 200 yards. In an attempt to identify and characterize the observed increase in bacteria, a series of intensive monitoring events supplemented the routine monitoring at the facility. The goal of this special study was to identify any possible sources of bacteria downstream of the UV Facility. Samples were collected at approximately 15 locations downstream of the facility along the creek. This last stretch of the creek was divided into three reaches.

The first reach begins at the box culvert under Third Street, downstream of the UV Facility, to the entrance of the three 72" pipes leading to Moonlight Beach. This reach of the creek is an open natural channel and has two pipes entering from the north bank that flow during dry weather. There are also two pipes entering the channel from the south that flow only during storm events. The two flowing pipes are the only other sources of water downstream of the UV Facility. Samples were collected at various intervals in the channel according to changes in channel topography. Both flowing pipes entering the channel were isolated and sampled, and samples were collected up and downstream of each pipe. Figure 13(a) and (b) show Reach 1 (R1) characterized in the special study.



Figure 13(a) Reach 1



Figure 13(b) Reach 1



The second reach (R2) monitored in the special study is in the three 72" pipes leading to the beach. There are no inputs into these pipes. Samples were collected upstream and downstream to characterize changes in bacteria concentrations occurring in the pipes. Figure 13(c) is of the three 72" pipes in R2 as they flow to the beach.

Figure 13(c) Reach 2



The third reach (R3) of the special study was from the outlet of the 72" pipes, off of the headwall, and across the beach to the ocean. Samples were collected periodically across the stretch of beach in an attempt to isolate bacteria contributors along the shoreline. Figure 13(d) illustrates the Third Reach monitored in the special study.

Figure 13(d) Reach 3

Table 13.1 contains descriptions of the locations monitored as part of the special study and Figure 13(e) is a map of the study area.

Table 13.3 Sample Locations for Special Bacteria Study	
Reach	Location
0	UV Diverted (North box culvert)
1	UV Treated (South box culvert)
1	UV Return
1	32 Feet west in South Box
1	64 Feet west in South Box
1	80 Feet west in South Box (Ponded)
1	Creek Constriction @ 34'
1	Upstream of 6" PVC Pipe @ 108'
Pipe	6" PVC Pipe
1	Downstream of 6" PVC Pipe @ 132'
1	Upstream of 12" CMP Pipe @ 244'

Table 13.3 Sample Locations for Special Bacteria Study	
Reach	Location
Pipe	Fourth Street Storm Drain (12" CMP)
1	Downstream of 12" CMP @ 297'
2	Upstream of 3x72" Pipes at 345'
2	Headwall West of 3x72" Pipes
3	3' West of Headwall
3	25' West of Headwall
Pipe	2 North Pipes at MLB
3	MLB -20, after convergence with North Pipes

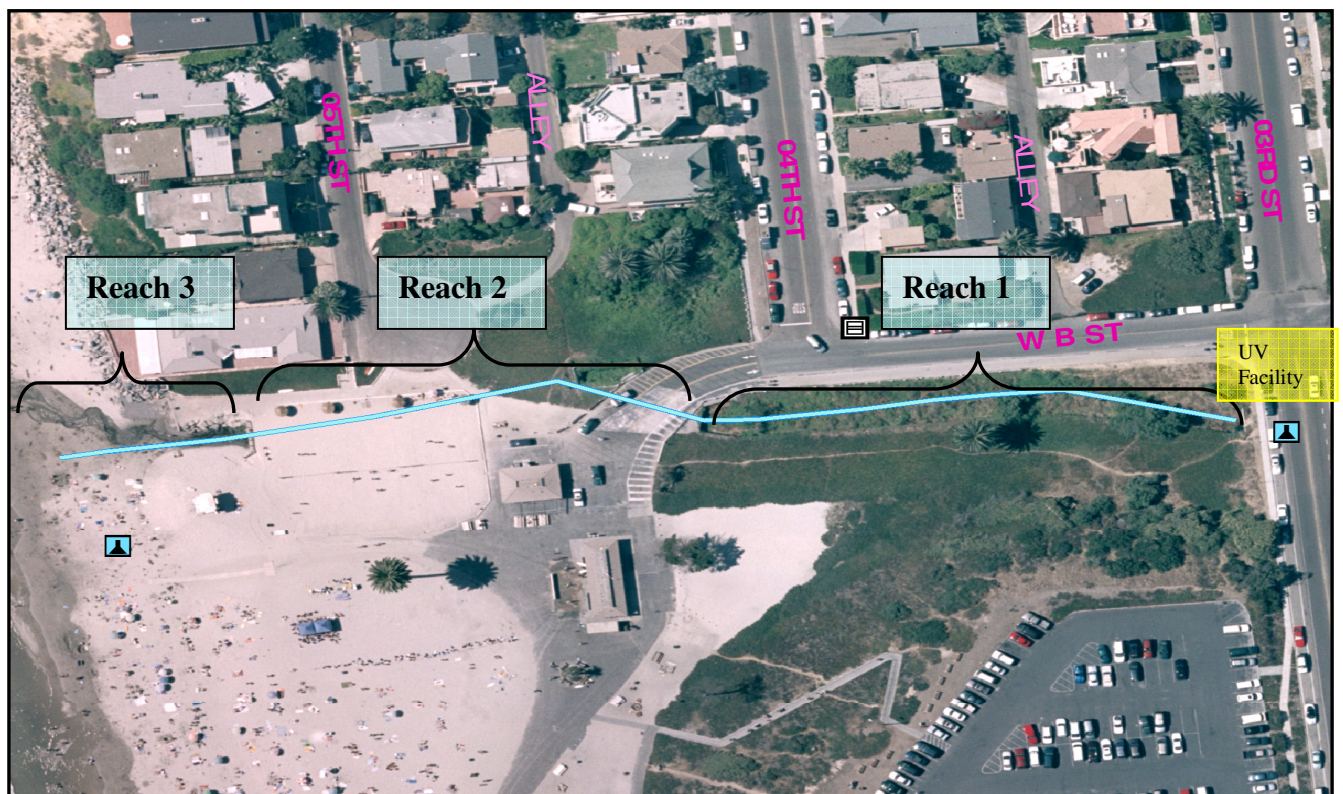


Figure 13(e) Special Study Overview

Figure 13(e) illustrates the reaches of the creek monitored in the special study.

Staff collected samples for the special study during five separate sampling events: October 9, 2003; July 28, August 25, September 30, and December 20, 2004. All data collected during the special study is presented in Appendix J-1. Table 13.2 contains a summary of the data collected at each site during the study. Values are the geometric mean for each location across the five sampling events.

Table 13.4 Special Bacteria Study Downstream of UV Facility Geometric Mean Data (n=5) (cfu/100 ml)			
Location	Total Coliform	Fecal Coliform	Enterococcus
UV Diverted (North box culvert)	12344	1304	343
UV Treated (South box culvert)	93	20	11
Creek Constriction @ 34'	6687	1082	145
Upstream of 6" PVC Pipe @ 108'	5019	632	165
6" PVC Pipe	192	28	35
Downstream of 6" PVC Pipe @ 132'	7776	1566	224
Upstream of 12" CMP Pipe @ 244'	6374	1110	253
Fourth Street Storm Drain (12" CMP)	5492	1209	178
Downstream of 12" CMP @ 297'	9331	2124	257
Upstream of 3x72" Pipes at 345'	9401	1252	334
Headwall West of 3x72" Pipes	12213	2196	396
3' West of Headwall	9781	1387	567
25' West of Headwall	11457	1872	488
2 North Pipes at MLB	6616	1085	310
MLB -20, after convergence with North Pipes	10717	1235	675

Data collected is used to further characterize bacteria sources and the possibility of bacteria re-growth occurring in the final stretch of Cottonwood Creek and on the beach. Results and implications of the special studies are discussed below.

In order to further understand the possible contributors of bacteria in the western reaches of Cottonwood Creek, individual sources were isolated. Possible sources of the bacteria fall into two main categories in the western reaches of Cottonwood Creek. The first group of potential bacterial sources is from the City's stormwater conveyance transporting bacteria laden urban runoff to the beach. The second possibility is that the bacteria are from natural sources such as animals, decaying plant material, or sediments in the creek or on the beach.

Table 13.3 below summarizes the geometric means of data collected in each reach of the study. Influent data is equal to the geometric mean of all influent data collected as part of the study, including routine monitoring data collected for the UV Facility.

Table 13.5 Geometric Mean Data by Reach (n=5 at each location), cfu/100 ml				
Reach	Monitoring Locations	Total Coliform	Fecal Coliform	Enterococcus
0	Influent	17473	1419	767
1	1,3,4,6,7,9	3361	606	125
2	10,11	10715	1658	364
3	12,13,15	10629	1474	572

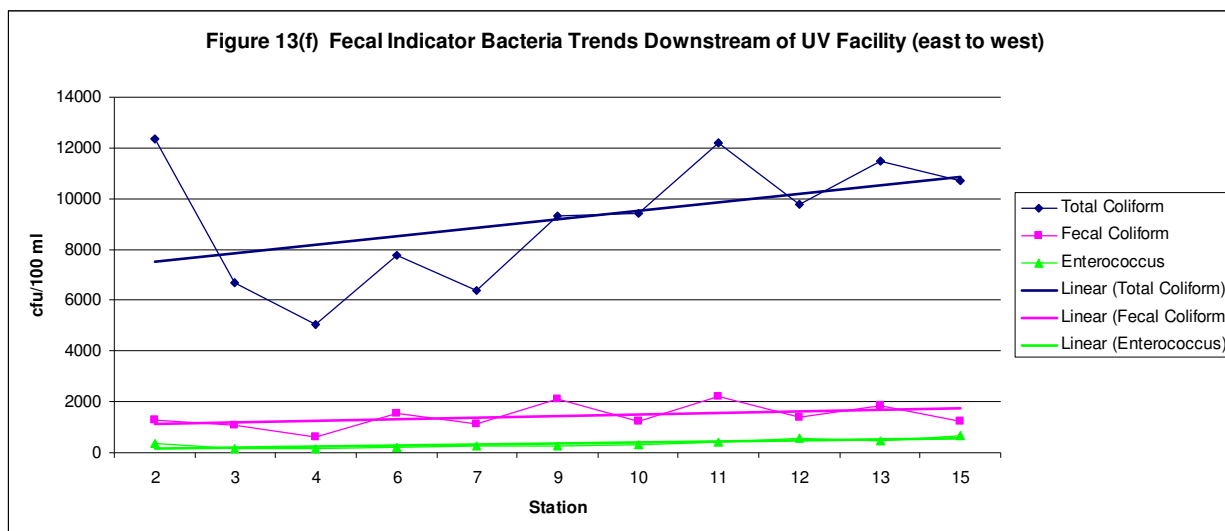
Expected bacteria concentrations downstream of the UV Facility are equal to the bacteria in the treated effluent, at 85% of the flows in the creek, plus bacteria in 15% of the creek flow designed to bypass the facility. Using the influent and effluent data collected over the entire project, calculations and expected bacteria concentrations downstream of the UV Facility are presented in Table 13.4 below.

Table 13.6 Expected Fecal Indicator Bacteria Concentrations Downstream of UV Facility			
Indicator	Bacteria Concentrations (cfu/100 ml)		
	Actual Geometric Mean Data		Expected Downstream
	Treated Flows at 85%	Untreated Flows at 15%	
Total Coliform	5	17473	2625
Fecal Coliform	3	1419	215
Enterococcus	2	767	117

The expected FIB concentrations downstream of the facility were calculated using the formula below.

$$[\text{FIB}]_{\text{Expected}} = 0.85 \cdot [\text{FIB}]_{\text{treated flows}} + 0.15 \cdot [\text{FIB}]_{\text{untreated flows}}$$

This formula does not take into account any additional sources of bacteria which may be present downstream. The expected FIB concentrations downstream of the treatment facility are slightly lower than the average of samples collected in Reach 1 of this study. Bacteria concentrations continue to rise as the water is conveyed to the beach, from R1 to R3. Figure 13(f) illustrates the rising bacteria concentrations at the creek flows from east to west.



Tables 13.5, 13.6, and 13.7 contain percent changes in bacteria concentrations from expected FIB concentrations to Reach 1, Reach 2, and Reach 3.

Table 13.7 Percent Change in FIB Concentrations Reach 1			
Indicator	Expected Reach 1	Actual Reach 1	Percent Change
Total Coliform (cfu/100 ml)	2625	3361	28%
Fecal Coliform (cfu/100 ml)	215	606	182%
Enterococcus (cfu/100 ml)	117	125	7%

Table 13.8 Percent Change in FIB Concentrations Reach 1 to Reach 2			
Indicator	Reach 1	Reach 2	Percent Change
Total Coliform (cfu/100 ml)	3361	10715	219%
Fecal Coliform (cfu/100 ml)	606	1658	174%
Enterococcus (cfu/100 ml)	125	364	191%

Table 13.9 Percent Change in FIB Concentrations Reach 2 to Reach 3			
Indicator	Reach 2	Reach 3	Percent Change
Total Coliform (cfu/100 ml)	10715	10629	-1%
Fecal Coliform (cfu/100 ml)	1658	1474	-11%
Enterococcus (cfu/100 ml)	364	572	57%

A significant increase of fecal coliform (nearly 200%) was observed at the monitoring locations in Reach 1 (R1) above the expected concentrations. This is not accompanied by large increases in total coliform or enterococcus. This immediate increase in fecal coliform is suspected to be from animal sources in R1. Many squirrels, rodents, and birds have been observed in this reach of the creek.

There are four storm drains entering this stretch of creek. The two entering from the south do not flow during dry weather. The next pipe west is a 6" PVC pipe conveying groundwater. The flows are on the order of 5 gallons per minute. Bacteria concentrations at this location are low and have not shown an effect on water quality in R1. There is also a 12" corrugated metal pipe (CMP) further downstream in R1. This pipe serves as a culvert under B Street and only has one inlet on the corner of 4th and B Street, across the street from the creek. The bacteria concentrations are higher at this location however, the flow is typically a trickle and this water was shown not have an effect on water quality in R1 during dry weather. See Table 4.8 above for bacteria data collected up and downstream of storm drain pipes entering R1 and data from the pipe flows. The increases shown from up to downstream of the pipes are thought to be a result of regrowth and/or natural sources in the creek.

Reach 2 in the study consists of two samples up and downstream of three 72" pipes that convey the creek from the open channel in R1 to the beach in R3. Samples collected up and downstream show a large increase in bacteria concentrations for all three indicators, each up by about 200%. This is the most significant rise in FIB concentrations from the UV Facility to the Pacific Ocean. The pipes are old corrugated metal and tend to trap organic debris and sediment within. There is a curve in the pipes which likely causes debris to accumulate. Adding to the problem, high tides often push sand and heavy kelp into the ends of the pipes. All factors combined in a dark, damp storm drain provide an ideal environment for bacterial regrowth. (MEC/Weston, September 2004) Taking into account the possibility of animals living in these storm drains and the ideal conditions present for bacterial survival and growth, the increase in bacteria in the storm drain pipes is explained.

Reach 3 of the study consists of three samples collected periodically on the beach/sand and one sample from two pipes entering the beach/creek area from the north. The pipes convey creek water that does not enter the 72" pipes. The flow here is low, relative to the creek, less than 5 gallons per minute. Data collected downstream of these pipes is similar to the data collected upstream, indicating no significant contributions of bacteria from these two pipes. Comparing mean data from R3 to R2, an increase in enterococcus bacteria is evident.

Concentrations of total and fecal coliform are both slightly reduced from R2. Likely sources of the increase in enterococcus concentrations in R3 are the wrackline and birds on the beach.

Understanding that all bacteria and associated pathogenic organisms are removed from the UV treated water; two main conclusions can be drawn from the special study. Any bacterial increases downstream of the facility must be from sources other than urban runoff, as the storm drains in the downstream reaches do not appear to affect concentrations of bacteria in the creek. This leads to the conclusion that the rising bacteria concentrations are due to the wildlife, sediments, and organics in and around Cottonwood Creek. Each of these sources was isolated in R1, R2, and R3. It is suspected that sources in R1 include primarily wildlife and sediment, sources in R2 include primarily sediment and organic debris, and sources in R3 include the wrackline and birds on the beach. Additional bacterial source identification techniques such as DNA analyses would be helpful in definitively isolating the sources of bacteria in these reaches and are recommended as a follow-up to this study.

13.5 San Elijo Lagoon Restoration Project

The City of Encinitas along with the City of Solana Beach and the Army Corps of Engineers have been analyzing possible enhancement opportunities for the San Elijo Lagoon. Artificial constrictions have hindered the natural ability of the estuary to open to the ocean. The Interstate 5 (I-5) North coast Freeway widening project will further impact the lagoon. A study was completed by the Army Corps of Engineers to investigate potential mitigation opportunities for the I-5 North Coast project.

The goal of the study was to optimize the openings at the three major transportation passageways across the San Elijo Lagoon. This study looked specifically into the effects of varying channel widths at each opening: inlet and PCH bridge, the SDNR system, and the I-5 freeway. Results from each simulation would be judged on its ability to reduce muting, increase circulation, improve water quality in the lagoon, and ultimately on whether or not any improvements to the habitat distribution in the lagoon would be likely to occur. Simulation results indicate a preference in selecting Alternative 2 "80m" case as the design case to be further analyzed.

13.6 Regional Channel Maintenance

The City received a letter from the Regional Water Quality Control Board on September 29th, 2004 regarding a Directive Regarding Channel Maintenance Activities. In order to complete an assessment of the on-going and proposed maintenance activities within the waters of the State the Regional Board requested a Required Technical Report by January 2005. Based on the information the Board was going to determine if a region-wide, jurisdiction-specific, or project-specific permitting approach would be necessary and appropriate for maintenance activities. A Regional Channel Maintenance Workgroup was formed to address the Regional Board letter and discuss ways to collaborate on a region-wide permitting approach so cities may perform necessary channel maintenance and flood control work. The Workgroup is supportive of a regional permit in accordance with all applicable agencies to allow channel maintenance, and would like to collaborate with the Regional Board on the proposed channel maintenance permit. The City of Encinitas has been an active participant in the Workgroup with staff from the Engineering and Public Works Departments providing information and collaboration.

The channel maintenance workgroup hired EDAW to streamline the permitting process with the resource agencies and coordinate with each city on their channel maintenance needs. The report will complete in 2007.

14. CONCLUSIONS AND RECOMMENDATIONS

14.1 Introduction

This component summarizes the conclusions and recommendations for the Jurisdictional Urban Runoff Management Program (JURMP) for the reporting period of FY 2005-06. A summary of the proposed program focus for the next fiscal year is also included.

14.2 Conclusions

The City of Encinitas successfully implemented all sections of the Order No. 2001-01 in FY 2005-06. The program has progressed significantly from the time the JURMP was developed in 2002. Overall, a great deal of effort has been expended to understand and reduce pollutants from entering the City's waterways and the Pacific Ocean in the most effective manner.

The focus of the Clean Water Program from the start has been:

- School children education
- Commercial Activities
- Development and Redevelopment Activities
- Water Quality Monitoring and Assessment
- Storm Drain Mapping
- TMDL Development

The Clean Water Program continues to learn about water quality issues locally, which has allowed for a more specific approach to program implementation. Through the water quality monitoring program, the City has been able to isolate constituents and geographical areas of concern. The City has performed economic studies to determine the value of local beaches in order to more effectively educate existing development as to the importance of preserving and improving water quality. This information has been applied to each of the program focus areas as discussed below.

14.2.1 Education

The education component focused on school education this year, reaching a total of 2,392 grade school children during the fiscal year. The Clean Water Program continued to focus on dissemination of materials previously developed. Much of the education was focused on one-on-one education during inspections for commercial, construction and complaints response. Education within the elementary schools was expanded. Because of the Clean Water Fee vote, a significant amount of education was performed to Encinitas residents.

14.2.2 Commercial Facilities

Commercial facilities were one of the major emphases of the Clean Water Program during this reporting period. The inspections were focused on priority geographical areas identified in the water quality assessment and performing follow-up inspections on all violations. The program continued to concentrate on restaurants and automotive facilities because it is believed, based on the water quality monitoring and complaints, that these facilities have the highest potential to cause stormwater pollution. Nurseries were not as much a focus, because many of the nursery facilities have gone out of business and sold their property for residential development.

One of the strong educational motivators used for commercial facilities was the finding that local beaches generate on the order of \$50 million per year in local sales. The City also found good success implementing the new (FY 2003-04) Administrative Citation program, which reduces the administrative time involved in issuing fines for water quality violations.

14.2.3 Development and Redevelopment Activities

A local Standard Urban Stormwater Mitigation Plan (SUSMP) program has been incorporated into the City's development process. The City has focused heavily on implementing the SUSMP program; requiring SUSMP BMPs on each project that goes through the City system, introducing the requirements at the earliest opportunity, encouraging developers to use natural BMPs rather than concrete structural BMPs, and tracking the installation of SUMSP BMPs. The City has successfully integrated the SUSMP process into their overall review and approval process for ministerial and discretionary projects and developers are much more likely to voluntarily address stormwater issues than in the past. A new Stormwater Pollution Checklist and Certification was developed to be implemented beginning in July 2006.

14.2.4 Water Quality Monitoring

The water quality monitoring program has been focusing on understanding water quality problems and identifying trends in water quality. The data from the Dry Weather, Coastal Outfall and Lagoon Outfall monitoring programs has been evaluated in much more detail in order to draw conclusions that will focus program efforts. Monitoring and analysis was performed by in-house staff and included a significant amount of testing and data analysis. The City has successfully evaluated water quality problems on a sub-basin level, correlating the number of complaints with particular constituents and water quality exceedances to better understand where efforts are needed. The City actively participates in water quality issues beyond its borders through the Southern California Coastal Water Research Project, the Carlsbad Watershed Urban Runoff Program, Regional Copermittee Monitoring Workgroup, the Bacteria TMDL Stakeholder Advisory Group (SAG), and the Lagoon TMDL SAG.

This year's water quality assessment indicates that there is a downward trend in the number of overall water quality exceedances in the City. Based on this year's Dry Weather Monitoring Report, the City's priority constituents of concern are:

- Bacteria indicators - High
- Nitrates – High
- Conductivity – Medium
- Turbidity – Low
- Oil and Grease - Low

The priority sub-basins based on both water quality and the number of complaints, are the Encinitas, Leucadia and La Costa South Sub-basins.

14.3 Recommendations

In the upcoming reporting period, the City plans to continue the programs that are described in the JURMP. Program emphasis will continue to be education, commercial facilities, development and redevelopment activities, and water quality monitoring. Additionally, the City

will continue to collaborate with other programs on Regional issues and on the Watershed Urban Runoff Management Program.

Following are proposed areas of program focus for the next fiscal year (only components where program improvements are deemed necessary are included). The City will pursue these activities, however, because they are extensive, may not be able to accomplish them all in one year.

Land-Use Planning for New Development and Redevelopment:

- Expand the Stormwater Checklist for use on all new development projects
- Map existing SUSMP BMPs

Construction:

- Maintain pressure on inspectors to keep stormwater issues a high priority

Municipal:

- Pursue City-wide channel maintenance permit
- Increase kelp removal from Cottonwood Creek and beaches
- Remove trash from creeks after each storm
- Inspect the City's new public works yard

Commercial:

- Develop procedures to track follow-up inspections for high priority facilities
- Improve the commercial inspection program database using the City's new Cityworks program for better inventory control and inspection tracking
- Inspecting 100% of restaurants in accordance with the Carlsbad Watershed URMP

Education:

- Move educational effort towards addressing specific constituents and geographic areas
- Move towards a regional education program

Illicit Discharge Detection and Elimination:

- Pursue grant funding for a special study on bacteria issues downstream of the UV Treatment Facility
- Re-evaluation of the number and location of Dry Weather monitoring site to adjust to possible new requirements in the upcoming new municipal permit.

Assessment of Jurisdictional URMP Effectiveness:

- Continue to move towards adopting the Regional Copermittee assessment strategy
- Continue developing Loads Assessment methods

Fiscal Analysis:

- Prepare for the next Permit budget cycle

Watershed:

- Focus watershed efforts on comprehensive monitoring for the lagoon TMDL that will lead to a better understanding of pollutant sources and management strategies

EXHIBIT B

CITY OF LA MESA

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

2005/2006 ANNUAL REPORT



JANUARY 2007

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
CERTIFICATION STATEMENT.....	V
1 INTRODUCTION	1
2 MUNICIPAL.....	7
3 INDUSTRIAL.....	26
4 COMMERCIAL.....	42
5 RESIDENTIAL	68
6 DEVELOPMENT PLANNING	77
7 CONSTRUCTION.....	83
8 ILLICIT DISCHARGE DETECTION AND ELIMINATION	91
9 EDUCATION	124
10 PUBLIC PARTICIPATION.....	135
11 ASSESSMENT OF JURMP EFFECTIVENESS	140
12 FISCAL ANALYSIS	165
13 SPECIAL INVESTIGATIONS	166
14 CONCLUSIONS AND RECOMMENDATIONS	177

ATTACHMENTS

1.1	RWQCB Comments on 2004/2005 JURMP Annual Report
2.1	Municipal Program Storm Water BMP Notebook
2.2	Calsense Facility Listing
2.3	Municipal Training Sign-in Sheets
2.4	NOV Procedural Handout
2.5	Bulletin Board Photo and Contents
2.6	NPDES Knowledge/Awareness Assessment Test
3.1	"Preventing Urban Runoff Pollution" Brochure
3.2	"San Diego Bay Watershed Fact Sheet"
3.3	"San Diego River Watershed Fact Sheet"
3.4	"Put Toxic Waste in its Place" (Educational Brochure)
3.5	<i>La Mesa Focus</i> Summer/Fall 2005 Article, "Summer Gardens and Storm Water Pollution"
3.6	<i>La Mesa Focus</i> December 2005 Article, "Q: What Can I Wash Down the Storm Drain? A: NOTHING! Only Rain Should Go Down the Storm Drain"
3.7	<i>La Mesa Focus</i> April 2006 Article, "Don't Wash Money Down the Storm Drain," and "La Mesa's Watersheds"
3.8	<i>La Mesa Focus</i> August 2006 Article, "Summer Storm Water Reminders," and "Becoming a Green Business is Good Business"
3.9	Storm Water Compliance Inspection Form

ATTACHMENTS (CONTINUED)

- 3.10 Follow-up Inspection Form
- 3.11 Draft Over-Irrigation Information Sheet
- 4.1 Informational Letter to City Restaurants
- 4.2 "What's Cookin'" (Educational Brochure)
- 4.3 Informational Letter to City Automotive Dealers
- 4.4 Integrated Pest Management Information Cards
- 4.5 Affidavits Developed for Mobile Businesses
- 5.1 Dry Weather Monitoring Program Letter to Residents
- 5.2 Dry Weather Monitoring Program Letter to Grossmont Shopping Center
- 5.3 Dry Weather Monitoring Program Letter to La Mesa Dale Elementary School
- 5.4 Storm Water Pollution Prevention: Spas and Pools
- 5.5 Household Hazardous Waste Breakdown
- 5.6 Household Hazardous Waste Bags
- 5.7 2006 La Mesa Community Calendar
- 5.8 "Less Toxic Yard and Garden Care" (Educational Brochure)
- 6.1 Storm Water Requirements Applicability Checklist
- 6.2 SUSMP Review Checklist
- 7.1 Construction Site Inspection Procedure Sheet
- 7.2 Notice of Violation Form
- 7.3 JURMP BMP Handbook for Construction Activities
- 7.4 A Guide for Construction Activity
- 7.5 Construction and Demolition Guide Brochure
- 8.1 City of La Mesa 2005 Dry Weather Field Screening and Analytical Monitoring Program Report
- 8.2 City of La Mesa 2006 Dry Weather Field Screening and Analytical Monitoring Program Report
- 9.1 Watershed Demonstration Model
- 10.1 Watershed Stewards Final Report 2006

ACRONYMS AND ABBREVIATIONS

°C	Degrees Celsius
303(d) List	2002 Clean Water Act Section 303(d) List of Water Quality Limited Segments
Basin Plan	Water Quality Control Plan for the San Diego Basin
BIA	Building Industry Association
BMP	Best Management Practice
Calsense	Calsense Computerized Irrigation Control
CASQA	California Stormwater Quality Association
CIP	Capital Improvement Project
City	City of La Mesa
COC	Constituents of Concern
Copermittees	Eighteen municipalities within San Diego County, the County of San Diego, the Port of San Diego, and the San Diego County Regional Airport Authority
COLD	Cold Water Habitat
CMP	Corrugated Metal Pipe
CTR	California Toxics Rule
D-MAX	D-MAX Engineering, Inc.
DAB	Development Advisory Board
DPR	California State Department of Pesticide Regulation
Dry Weather Monitoring Program	Dry Weather Field Screening and Analytical Monitoring Program
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FOG	Fats, Oils, and Grease
gpm	Gallons Per Minute
HA	Hydrologic Area
HDPE	High Density Polyethylene
HHW	Household Hazardous Waste
IC/ID	Illicit Connection/Illegal Discharge
ILACSD	I Love a Clean San Diego
Industrial Permit	State of California Industrial General Permit, Order No. 97-03-DWQ
IPM	Integrated Pest Management
JURMP	Jurisdictional Urban Runoff Management Program
LTEA	Long Term Effectiveness Assessment
MBAS	Methylene Blue Active Solids
MEP	Maximum Extent Practicable
mg/L	Milligrams Per Liter
MPN/100 mL	Most Probable Number (of colony-forming units) Per 100 Milliliters
MS4	Municipal Separate Storm Sewer System

ACRONYMS AND ABBREVIATIONS (CONTINUED)

Municipal Permit	San Diego Regional Water Quality Control Board Order No. 2001-01
NEC	No Exposure Certification
nd	Not Detected
NOI	Notice of Intent
NONA/NEC	Notice of Non-Applicability/No Exposure Certification
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
nt	Not Tested
NTC	Notice to Comply
NTU	Nephelometric Turbidity Unit
PDPA	Pollutant Discharge Potential Assessment
PW	Public Works
RCP	Round Concrete Pipe
REC-1	Contact Recreation
REC-2	Non-Contact Recreation
Regional Board	Regional Water Quality Control Board
RWQCB	Regional Water Quality Control Board
SIC	Standard Industrial Classification
Solana Center	Solana Center for Environmental Innovations
SSO	Sanitary Sewer Overflow
SUSMP	Standard Urban Storm Water Mitigation Plan
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WARM	Warm Water Habitat
WILD	Wildlife Habitat
WQO	Basin Plan Water Quality Objectives
WQTR	Water Quality Technical Report
WURMP	Watershed Urban Runoff Management Program
µg/L	Micrograms Per Liter
µmhos/cm	Micromhos Per Centimeter (equivalent to microsiemens per centimeter: µS/cm)

EXECUTIVE SUMMARY

In February 2001, the San Diego Regional Water Quality Control Board (RWQCB or Regional Board) issued Order No. 2001-01, a National Pollutant Discharge Elimination System (NPDES) Permit regulating discharges to storm drain systems within 18 municipalities in San Diego County, the County of San Diego, and the San Diego Unified Port District (collectively referred to as a “Copermittees”). The San Diego County Regional Airport Authority was later added as the twenty-first Copermittee. Order No. 2001-01, generally referred to as the Municipal Permit, required each Copermittee, including the City of La Mesa (City), to develop a comprehensive storm water management program known as a Jurisdictional Urban Runoff Management Program (JURMP). The City’s JURMP includes storm water management strategies and protocols related to planning, construction, and existing developments. Major components include the implementation of Best Management Practices (BMP), water quality monitoring, and educational outreach efforts.

Each fiscal year, the City prepares an annual report on the implementation of its JURMP, as required by Municipal Permit Section I.1. The following JURMP Annual Report presents the activities implemented during the 2005/2006 fiscal year (July 1, 2005 through June 30, 2006). A brief summary of each of the 14 sections of the Annual Report is presented below.

Introduction

The introduction presents an overview of the City’s approach to storm water pollution prevention and further includes a bulleted summary of key accomplishments for the 2005/2006 reporting period. This section also briefly discusses the RWQCB review comments on the 2004/2005 Annual Report.

Municipal

The City of La Mesa invests significant resources in storm water management activities for its own facilities and staff. Prominent activities include regular maintenance of the storm drain system, sanitary sewer upkeep to prevent overflows, street sweeping, inspections of municipal facilities, education of City staff, and outreach to the public. The City removed 203 cubic yards of debris from storm drain cleaning and 803 tons of material from street sweeping. All high priority municipal facilities were inspected, and follow-up inspections were conducted as necessary to ensure corrective actions were implemented. Calsense Computerized Irrigation Control, which helps reduce water use, was implemented at five additional sites. Sixteen new pet waste cleanup bag dispensers were installed in municipal parks. Currently all municipal parks are equipped with at least one pet waste bag dispenser. Catch basin filter inserts installed by the City prevented 18 cubic yards of pollutants from entering the MS4. The City also obtained a \$14.5 million grant for sanitary sewer improvements from the State Water Resources Control Board. The associated sewer improvements constitute the largest infrastructure project in City history and are expected to be completed in 2008. These upgrades are considered a preventative measure to ensure that sewer overflows continue to be minimized within the jurisdiction.

Nineteen training sessions were conducted for City staff, and the City has also developed or participated in a variety of innovative public outreach programs. These range from the creation of a storm water information bulletin board near the Engineering front desk to clean up events to special programs for school children. The City began development of an ordinance prohibiting smoking in City parks, which is anticipated to significantly reduce a major category of litter: cigarette debris. The City's Environmental Specialist began working with local Eagle Scouts to install storm water educational kiosks at three parks in the City.

Industrial/Commercial

Throughout the life of the Municipal Permit, the City has inspected all its inventoried industrial and high priority commercial sites. The City conducted annual inspections of all its high priority industrial facilities during the reporting period. Notably, the City successfully worked with the RWQCB in an enforcement action for Rainbow Steel, a business with a long history of noncompliance. While the process of coming into full compliance is ongoing, the business has now completed a Storm Water Pollution Prevention Plan (SWPPP) and has made progress in cleaning up outdoor areas at its site. Additional visits were made to industrial and commercial sites based on public complaints. The City ensured that such complaints were immediately investigated and resolved satisfactorily. The City issued 16 Notices of Violation (NOV) to non-compliant businesses, mainly as the result of complaint investigations. The City further worked with the San Diego Green Business Program to provide an educational workshop for La Mesa restaurants; letters informing restaurants of the date and time of the workshop were mailed in advance of the event. The letters also included information about applicable storm water BMPs. In another mailing to commercial businesses, the City sent educational letters to automotive dealers in its jurisdiction. In particular, the mailings reminded the dealers to implement proper BMPs for vehicle washing.

Residential

Because residential areas comprise a large portion of La Mesa, the City has pursued a number of efforts to educate and involve residents. Storm water articles were published in three issues of the City's quarterly newsletter, the *La Mesa Focus*, and an environmentally-themed calendar was sent to all residential addresses in the City. Each issue of the *La Mesa Focus* is sent to over 27,500 addresses in the City of La Mesa, with an additional 2,500 copies made available at City Hall, the library, and the Adult Enrichment Center. Over 50,000 calendars were distributed through mailing and other means. The City's proactive system of regular HHW collection events combined with convenient door to door pickup for seniors and the disabled resulted in the collection of over 100,000 pounds of HHW. The City created and distributed a fact sheet about BMPs for pool and spa maintenance. Educational letters were also sent to residents in neighborhoods that the 2005 Dry Weather Field Screening and Analytical Monitoring Program (Dry Weather Monitoring Program) identified as sources of pollutants. The development of a fact sheet designed to encourage residents to minimize irrigation runoff was initiated in 2005/2006. Residents also made use of the City's Storm Water Hotline to report observed storm water problems, including those

in residential neighborhoods. The City issued 16 NOVs, 10 written warnings, and 10 verbal warnings related to complaint investigations in residential areas.

Development Planning/Construction

The City has developed a checklist that helps determine which storm water requirements are applicable to each development project; this checklist is typically completed in the early stages of the project. All construction projects subject to the General Construction Permit must submit SWPPPs, and BMP plans are required of the other projects. Depending on the prioritization of the project, Water Quality Technical Reports (WQTR), as defined in the City's Standard Urban Storm Water Mitigation Plan (SUSMP) Ordinance, may be required. WQTRs provide plans for post construction BMPs designed to mitigate storm water quality pollution in perpetuity. The Development Advisory Board continues to meet to discuss projects, and educational guides and training material have been prepared for project proponents and inspectors. Fifteen Priority Projects were identified as requiring the preparation of WQTRs. Post-construction BMP plans were also required of three other developments that were not Priority Projects. The City conducted construction site inspections at high priority sites weekly during the wet season and at least twice for medium and low priority sites during this reporting period. Several training sessions for construction inspectors were held during 2005/2006. Notably, the City also adopted an ordinance requiring recycling of construction materials.

Illicit Discharge Detection and Elimination

The Dry Weather Monitoring Program and the Storm Water Hotline are the primary sources through which illicit connections and illegal discharges (IC/ID) are detected. During 2005/2006 the City also created a page on its website through which storm water pollution prevention complaints can be reported. Visual observations and field screening were conducted at 18 Dry Weather Monitoring Program sites, and water samples from over 25 percent of the sites underwent laboratory analysis for additional parameters. When routine monitoring found a parameter above its established action level, a follow-up source identification investigation was undertaken. Based on the results of the investigations, the City acted to eliminate the source(s) of pollution identified by these investigations. All 133 complaints received were documented and resolved by City staff. Two relatively small sewage overflows occurred. They were promptly reported to the RWQCB and cleaned up, and no further action was needed. All IC/IDs detected in 2005/2006 were eliminated during the reporting period. The City is considering wet weather monitoring to further characterize pollutant sources in industrial, commercial, and residential areas.

Education/Public Participation

The City's outreach efforts were estimated to have made over 465,000 impressions during the reporting period. The City conducted numerous in-house training sessions, distributed a number of educational brochures and fact sheets, and worked with the Solana Center for Environmental Innovations (Solana Center) to offer several training events. The City also collaborated with the other jurisdictions in the San Diego Bay Watershed, the EcoLife Foundation, and the San Diego Zoo to educate elementary students in the City through the Watershed Steward Program. The City contributed \$1,000 to I Love A Clean San Diego

(ILACSD) as a sponsor of the 2006 Creek to Bay Cleanup. The 2006 event included cleanup of a site in Alvarado Channel for the first time. The City's Environmental Specialist gave a tailgate speech about the City's storm water program, local watersheds, and general pollution prevention concepts to all participants at the site. La Mesa was also involved in the Coastal Cleanup Day event at Lake Murray. The City has continued its Adopt a Park, Adopt a Block, and Canine Corners programs, which involve citizens in keeping their community clean. Seventy-five volunteers also removed over three tons of debris during a cleanup event of all City parks that was part of Park Appreciation Day.

Assessment of JURMP Effectiveness

The City has continued to evaluate its program using the same general approach jointly developed and implemented by all the San Diego Copermittees. The approach includes program planning, BMP selection, and evaluation of six tiered levels of targeted outcomes. As the system progresses from Level 1 to Level 6, targeted outcomes becoming less focused on activities conducted and more focused on changes in water quality. The higher levels typically require considerably more data and are generally harder to make definitive conclusions about. The City has also tracked municipal irrigation volumes and local water quality monitoring data over the years in an effort to gauge historical patterns. Additionally, the City has developed and implemented numeric scoring systems to evaluate BMP implementation and storm water knowledge.

Fiscal Analysis

The fiscal analysis of the City's storm water program is presented in Section 12 of this JURMP Annual Report. The expenditures for the 2005/2006 fiscal year came to \$599,042, and the proposed budget for the 2006/2007 fiscal year is \$644,991.

Special Investigations

To better understand the quality of water flowing out of the City at its major discharge points, the City conducted an additional water quality monitoring study. The study involved sampling of water at four locations in the City's major drainage basins under dry weather conditions. The City further collaborated with the RWQCB on inspection and enforcement of the industrial business Rainbow Steel, which had been nonresponsive to earlier City enforcement actions. This resulted in the RWQCB issuing a Cleanup and Abatement Order to the business, primarily related to noncompliance with the State of California Industrial General Permit (Industrial Permit). Since the issuance of the order, the business has begun to make strides toward compliance.

Conclusions and Recommendations

General conclusions and recommendations are presented in Section 14. Since the development of the JURMP in early 2002, the City has continued to improve the planning and implementation of its program each year. During the 2006/02007 reporting period, the City will continue to make adjustments to its storm water management efforts. Assuming that the Municipal Permit is reissued prior to the end of 2006/2007, the City will also likely begin adjusting its program to comply with the requirements of the tentative order pending adoption.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sandra L. Kerl
City Manager

Date: January 2007

Telephone Number: (619) 667-1105

1 INTRODUCTION

The City of La Mesa (City), like most municipalities in California, has separate storm water and sanitary sewer systems. This configuration was adopted in part to prevent overflows of polluted water from the sanitary sewer system during rain events. While water in the sanitary sewer system is directed to advanced water treatment facilities, such as the one at Point Loma, water conveyed via Municipal Separate Storm Sewer Systems (MS4) flows directly to receiving water bodies and beaches without being treated. Consequently, discharges of this water, which is typically termed urban runoff, are regulated under the National Pollutant Discharge Elimination System (NPDES) provisions of the Federal Clean Water Act as amended in 1987. In early 2001, the San Diego Regional Water Quality Control Board (RWQCB or Regional Board) issued Order No. 2001-01 (Municipal Permit), an NPDES permit that regulates discharges of urban runoff from municipal MS4s in the San Diego area. The dischargers subject to the Municipal Permit originally included the 18 jurisdictions within the County of San Diego, such as the City of La Mesa, as well as the County of San Diego, the San Diego Airport Authority, and the San Diego Unified Port District (collectively referred to as “Copermittees”).

A key provision of the Municipal Permit is the preparation of a Jurisdictional Urban Runoff Management Program (JURMP). The City finalized its JURMP in early 2002, and it was accepted by the RWQCB. The JURMP includes planning and maintenance strategies for development projects and maintenance of existing development, including both public and private facilities. A variety of specific Best Management Practices (BMP) are laid out for municipal, industrial, commercial, residential, and construction sources. Strategies for educating and involving various sectors of the public are outlined; these measure raise awareness of storm water issues and promote BMP implementation. The JURMP also presents procedures to prevent, detect, and eliminate illicit connections and illegal discharges (IC/ID). The City’s approach to enforcement, which is at times necessary to bring about compliance, is also explained in the JURMP. These strategies are intended to reduce discharges of pollutants to the MS4 to the Maximum Extent Practicable (MEP), with a view toward maintaining or improving downstream receiving water quality.

Education, inspections, enforcement, and water quality monitoring are among the key components of the JURMP. The City offers both printed materials, such as calendars, brochures, and newsletter articles, and interactive sessions, such as workshops, direct interaction with City staff, and cleanup events, to maximize the effectiveness of its efforts. Municipal facilities, construction sites, and industrial and commercial businesses are routinely inspected to gauge compliance with mandated storm water BMPs. These inspections include an educational component, but the City also may undertake enforcement actions if necessary to ensure proper BMP implementation. The City also promptly responds to storm water complaints logged through its hotline or website. When investigating the complaint, City provides education and/or takes enforcement actions as necessary to remedy any observed problems. Enforcement measures available to the City range from verbal warnings to Notices

of Violation (NOV) to administrative civil liabilities. If sites pose a threat to human or environmental health, or if they refuse to cooperate with the compliance process, they are reported to the RWQCB.

Water quality monitoring, principally the City's Dry Weather Field Screening and Analytical Monitoring Program (Dry Weather Monitoring Program), serves two main purposes. It provides the City with some level of assessment of the water quality in its storm drain system, and it also helps alert the City of potential IC/ID. When monitoring indicates an exceedance of an established action level, follow-up visits are conducted to investigate what source(s) may be responsible for the exceedance. The City then takes action to eliminate any IC/IDs from the identified sources.

In accordance with Municipal Permit Section I.1, each fiscal year the City compiles a JURMP Annual Report. This Annual Report provides information on the City's implementation of its JURMP during the reporting period from July 1, 2005 to June 30, 2006.

RWQCB COMMENTS REGARDING 2004/2005 JURMP ANNUAL REPORT

The RWQCB provided The City of La Mesa with four comments on the City's 2004/2005 JURMP Annual Report in a letter dated January 2, 2007. None of the comments required a response with respect to activities in 2004/2005. Rather, the comments gave further specifics about the way the RWQCB would like to see information presented in following Annual Reports, beginning with the 2006/2007 Annual Report. The RWQCB comment letter is provided as Attachment 1.1 to this JURMP Annual Report.

SUMMARY OF ACCOMPLISHMENTS IN 2005/2006 REPORTING PERIOD

During 2005/2006 the City both initiated new programs and continued to implement and refine existing programs. The following bullets briefly summarize notable achievements and activities from the 2005/2006 reporting period. Additional detail can be found in the following sections of this Annual Report.

- Completed annual storm water compliance inspections of all high priority municipal facilities. Additional follow-up inspections ensured corrective actions were implemented.
- Completed construction of a permanent material separator for stockpiles of sand/spoil/gravel/cold mix/decomposed granite at the Public Works Operation Center. The material separator is now in use.
- Continued maintenance of seven catch basin filter inserts installed at the Public Works Operations Center and 22 filter inserts along University Avenue. The filters trap pollutants, preventing them from entering the MS4. Eighteen cubic yards of sediment, trash, and debris were cleaned out from the filters during 2005/2006.

- Continued the use of Hydrotex lubricant for oil changes for municipal vehicles. In some cases, this helps reduce oil change frequency to every 9,000 miles instead of every 5,000 miles, which reduced the quantity of waste oil generated.
- Provided 19 training sessions for municipal employees. The sessions covered topics such as spill response, good housekeeping, and construction BMPs.
- Continued to maintain and update an NPDES Storm Water bulletin board in City Hall. The bulletin board is located in a high traffic area near the front desk of the Engineering Division.
- Continued distribution of a Municipal Program Storm Water BMP Notebook for newly-hired City employees.
- Installed Calsense Computerized Irrigation Control (Calsense), which helps reduce water use and over-irrigation, at five additional locations. Calsense is now in place at 20 locations in the City.
- Swept 8,280 curb miles of streets, removing 803 tons of sediment and debris. An additional 203 cubic yards of debris from the MS4. One hundred percent of cleanout locations were maintained.
- Obtained a \$14.5 million grant for sanitary sewer improvements from the State Water Resources Control Board. The associated sewer improvements constitute the largest infrastructure project in City history and are expected to be completed in 2008. These upgrades are a preventative maintenance measure that will help ensure sewer overflows remain an infrequent occurrence in the City.
- Replaced approximately 300 linear feet of storm drain piping from corrugated metal pipe (CMP) with high density polyethylene (HDPE) pipe or round concrete pipe (RCP). The City also repaired nine catch basins.
- Inspected all high priority industrial facilities. The City also worked closely with the RWQCB to ensure that Rainbow Steel, Inc. begins complying with State and City storm water requirements.
- Issued 16 NOVs to industrial and commercial businesses. These enforcement actions were mainly related to discharges of wash water investigated during responses to complaints. In each case, the City actions resulted in the resolution of the observed problem.
- Partnered with the San Diego Green Business Program to host an educational workshop targeting restaurants. Prior to the workshop, 145 educational letters were mailed to local restaurants.
- Continued the partnership between the City's Environmental Specialist and the business license department to coordinate the business license and storm water facility inventories. They met weekly to discuss proposed Standard Industrial Classification (SIC) codes and threat to water quality prioritizations for new businesses.

- Mailed educational letters to automotive dealerships. The City received two calls in response to the letter and was able to provide additional education via that direct interaction.
- Continued distribution of educational fact sheets on La Mesa's two watersheds, San Diego Bay and San Diego River.
- Reached an agreement with local Eagle Scouts to build kiosks with educational information about storm water pollution prevention and watershed protection. One kiosk will be constructed in each of three City parks.
- Installed 16 new pet waste clean-up bag dispensers at City parks. All 14 parks now have at least one dispenser, and a total of 4,500 pet waste disposal bags were used during 2005/2006.
- Published storm water articles in the Summer/Fall 2005, December 2005, and April 2006 editions of the City's *La Mesa Focus* newsletter. Development of an article for the August 2006 issue was also initiated. Topics included gardening BMPs and an introduction to the City's watersheds. Approximately 30,000 copies of each issue were distributed.
- Mailed over 200 letters to City residents in response to recommendations associated with the 2005 Dry Weather Monitoring Program findings. The letters included explanations of BMPs residents could use to help reduce pollution.
- Collected over 100,000 pounds of household hazardous waste (HHW) at six disposal events and through door to door pick ups for the disabled and seniors.
- Continued distribution of construction educational materials, including its guides for construction activity and for construction and demolition.
- Continued the Development Advisory Board (DAB) meetings related to development projects. Fifteen Priority Projects submitted WQTR for review during this reporting period. Post-construction BMP plans were also required of three significant projects that were not large enough to be considered Priority Projects.
- Continued to use a SUSMP requirements checklist while reviewing WQTR for Priority Projects.
- Inspected all high priority construction sites during the wet season (October through April) each week and at least twice during the wet season for medium and low priority construction sites. City building inspectors also now check BMP implementation during inspections of small projects.
- The City created an ordinance requiring recycling of a portion of the debris generated by construction projects.
- Completed the 2005 Dry Weather Monitoring Program and follow-up investigations. The City implemented the recommendations listed in the 2005 Dry Weather

Monitoring Program final report. The City also initiated its 2006 Dry Weather Monitoring Program during the reporting period.

- Created a web-based complaint reporting system accessible via the City website. A total of 133 public complaints were recorded, investigated, and resolved during this reporting period.
- Worked with I Love a Clean San Diego (ILACSD) to establish a new location in Alvarado Channel for the Creek to Bay Cleanup. The City sponsored the event through a \$1,000 contribution to ILACSD. Additionally, the City supported Coastal Cleanup Day at Lake Murray, also coordinated by ILACSD. Over 1,000 pounds of debris were collected via these efforts.
- Hosted Park Appreciation Day, which was a cleanup of all City parks that involved 75 volunteers and removed over three tons of debris.
- Made over 465,000 impressions through outreach efforts.
- Distributed 56,000 calendars with environmental education content, including tips to prevent storm water pollution.
- Continued to work with the Solana Center for Environmental Innovations (Solana Center) to put on training sessions, including one seminar about integrated pest management (IPM) concepts and two presentations to elementary school students.
- Partnered with other San Diego Bay Copermittees, the EcoLife Foundation, and the San Diego Zoo to conduct the Watershed Stewards Program. The program, presented to fifth graders, included both interactive classroom exercises and a field trip that involved planting native plants in a creek habitat.
- Continued the Adopt a Park Program and the Adopt a Block Program. The City also continued its Canine Corners Program, through which residents clean up pet waste at Harry Griffen Park on a daily basis.
- Initiated development of an ordinance prohibiting smoking at all City parks. Adoption of this ordinance is anticipated to reduce the amount of cigarette debris deposited at City parks and eventually carried to the MS4.
- Participated in Project Clean Water regional outreach group and San Diego River and San Diego Bay Watershed Urban Runoff Management Program (WURMP) groups.

JURMP ANNUAL REPORT ORGANIZATION

This annual report is divided into the following 14 Sections.

Section 1	Introduction
Section 2	Municipal
Section 3	Industrial
Section 4	Commercial
Section 5	Residential
Section 6	Development Planning
Section 7	Construction
Section 8	Illicit Discharge Detection and Elimination
Section 9	Education
Section 10	Public Participation
Section 11	JURMP Effectiveness Assessment
Section 12	Fiscal Analysis
Section 13	Special Investigations
Section 14	Conclusions and Recommendations

The Municipal, Industrial, Commercial, Residential, and Construction components were addressed and organized by presenting priority sources, BMP Requirements, BMP Implementation, Pollution Prevention, Inspections, and Compliance and Enforcement. Utilizing the aforementioned format facilitated in addressing the same elements presented in the Municipal Permit. The remaining sections focused on general program activities.

2 MUNICIPAL

The City of La Mesa owns and operates an extensive storm drain system and many public streets, buildings, and parks. Proper operation and maintenance of City property is important both in directly reducing discharges of pollution and in setting a good example for City residents and businesses. The City has taken a number of steps to minimize storm water pollution related to its activities and facilities to the MEP. The City's Engineering Division and the Operations Division have both successfully undertaken storm water responsibilities, including BMP implementation and storm water pollution prevention education.

The City of La Mesa actively ensures that its BMPs are being implemented by its own staff in accordance the City's JURMP. The City realizes that preventing pollutant discharges into the MS4s is a more cost effective means than eliminating the pollutant after it has entered the MS4. BMPs are rigorously implemented at City owned and operated facilities during regular maintenance operations to prevent pollutants from entering the storm drain system. In addition, the City also devotes many hours to cleaning and maintaining City areas by sweeping streets and cleaning out the storm drain system. Public Works employees continue to implement a Storm Water Management Plan (SWMP) at the Public Works Operation Center. City inspectors inspect high priority municipal facilities annually to ensure that all activities are carried out using the proper BMPs.

PRIORITY SOURCES

The City prioritizes municipal facilities based on their potential threat to storm water: high, medium, or low. The City of La Mesa maintains 22 public parks and recreational facilities, four administrative buildings, three fire stations, one police station, three community service buildings, seven City Public Works facilities, and four parking facilities. In addition, the City is responsible for the MS4 and for roads, streets, and highways, each of which comprise one entry in the City's municipal inventory. The City's inventory has changed to reflect the removal of the Fire Administration Building, which was replaced as part of the construction of a new Fire Station No. 11 building, completed during this reporting period.

All 46 facilities were prioritized in accordance with the City's JURMP into high, medium, and low priorities. The inventory includes ten high priority facilities, including all Public Works yards, public parking lots, the MS4, and roads, streets, and highways. Note that the highways do not include Interstate 8 or State Route 125, both of which are under Caltrans jurisdiction. The inventory lists nine medium priority facilities, including the fire stations, the community pool, the pump house, police station, some of the City parks, and the community service buildings. The low priority sites are mainly smaller parks and administration or recreational buildings. The Municipal Permit requires that the City keep a watershed-based, prioritized inventory of municipal facilities. The inventory is to be updated annually and included each year in the JURMP Annual Report; Table 2.1 presents the City's updated inventory.

BMP REQUIREMENTS

Lists of BMPs to be implemented for major categories of municipal activities were developed as part of the City's JURMP; Table 2.4 of the JURMP is a matrix presenting the "Minimum BMPs for Municipal Facilities and Activities." The table shows which classes of BMPs, such as Employee Training or Material Storage Practices, are applicable to each facility or activity type, such as Landscape and Recreational Facilities or Roads and Street Maintenance. More detailed descriptions of the BMPs are present in Appendix C-1 of the JURMP document. The BMP fact sheets in Appendix C-1 provide information about non-storm water discharges; spill prevention, control and cleanup; vehicle and equipment repair, cleaning, and fueling; waste handling and disposal; good housekeeping practices; landscape maintenance; and drainage system maintenance. During this reporting period, there were no changes or modifications to the City's municipal BMP requirements.

BMP IMPLEMENTATION

The City actively implements BMPs at every municipal facility. Table 2.4 of the City's JURMP outlines BMPs for specific activities, which are expected to be used at all times. BMPs are chosen from this list based on the activity and the potential pollutant sources associated with that activity. In the rare event that City cannot implement the specified BMPs, other, equally effective BMPs are substituted. The City provides various training sessions and educational materials to ensure that all employees not only understand how to utilize BMPs properly but also understand why it is necessary to do so.

The City has categorized municipal facilities and activities into five groups, as listed below.

1. Roads and Streets Maintenance
2. Parking Facilities Management
3. Industrial Facilities and Corporate Storage Yards for Materials, Waste, Equipment and Vehicle Maintenance
4. Landscape and Recreational Facilities
5. Public Buildings

For each group, the City maintains a list of the pollutants of concern and the BMPs necessary for preventing pollutants from reaching the MS4. These BMPs are discussed in Section 2 of the City's JURMP, with additional detail provided in JURMP Appendix C.

In addition to the BMP requirements developed for City facilities and listed in the JURMP, the Public Works Operation Center also implements a site-specific SWMP. The SWMP is similar to the Storm Water Pollution Prevention Plans (SWPPP) developed for industrial sites, but the Public Works Operation Center is not subject to the Industrial Permit and has chosen to develop the SWMP solely as a proactive measure. Based on field visits and review of site plans, the City's storm water consultant developed a set of BMPs and preventative maintenance measures for the SWMP. While the plan emphasizes source

control and pollution prevention, all storm drain inlets at the facility have also been equipped with filter inserts as part of the SWMP implementation. Routine inspections by the City's inspector of the Operation Center are conducted to ensure selected BMPs are implemented according to the SWMP.

Recognizing that employees must be educated about BMPs if those measures are to be implemented, the City offers many educational booklets and brochures as well as training sessions to discuss NPDES and BMPs. More detail on educational efforts is presented later in this section.

As previously mentioned, City inspectors inspect high priority municipal facilities on an annual basis. Inspections are designed to ensure that BMPs are being implemented properly during activities such as street sweeping, general maintenance, storm drain cleaning, irrigation activities, and material storage and disposal. Inspections of municipal facilities and the associated findings are discussed in more detail later in this section.

POLLUTION PREVENTION

Pollution prevention measures are intended to limit and control the generation and transport of potential pollutants. The City implements many pollution prevention measures, such as erosion control and waste management; JURMP Section 2.1 provides a complete listing. To further the implementation of such measures, the City participates in pollution prevention education activities and outreach to municipal employees. Regular trainings and distribution of reference materials help inform City staff of how their actions may affect water quality and what practices can best limit the generation of pollution. For example, City staff are encouraged to schedule landscaping activities based on weather patterns and forecasts to avoid over-irrigation and subsequent runoff into the MS4. City staff are also encouraged to select less toxic materials, using the smallest amount possible. In addition, educated municipal employees are able to pass on information about storm water pollution prevention practices both to their coworkers and to members of the public.

As discussed earlier in this section, the City's Public Works Operation Center maintains a SWMP as a means of pollution prevention. To ensure that the SWMP is being implemented properly, meetings and training sessions are conducted for staff at the Public Works Operation Center. Additionally, all new municipal employees are provided a City of La Mesa Municipal Program Storm Water Best Management Practices Notebook (Attachment 2.1) which includes BMP fact sheets relevant to municipal activities and facilities.

During the 2005/2006 reporting period, the City did not change its implementation of pollution prevention measures, but it has continued to make improvements by educating City staff. In addition, the City continues to ensure that pollution prevention measures are discussed not only in response to storm water compliance inspections but in departmental meetings as well. Regular exposure to pollution prevention trainings is more likely to influence City staff to modify their routine activities.

MUNICIPAL ACTIVITIES

In the absence of proper BMP implementation, municipal activities may pose a significant threat to storm water quality. City staff has been educated on how to ensure their routine activities do not compromise storm water quality. They are encouraged to implement BMPs and ensure the BMPs are working properly. The following presents a description of the activities conducted during this period.

SWMP Implementation

As mentioned earlier in this section, the Public Works Operation Center has maintained a SWMP since June 2003. During this reporting period, the City continued to ensure that the facility is properly implementing the SWMP. Listed below are some of the main site specific BMPs detailed in the SWMP.

- Storing of the patch and oil trucks under canopies
- Maintaining bermed and covered areas for material stockpiles
- Limiting material inventories to prevent long term storage and properly labeling stored containers
- Design of the vehicle wash pit with a cover, containment, and a clarifier-equipped sanitary sewer connection
- Maintaining the seven catch-basin filters installed at the Public Works Operations Center, including regular clean outs of material captured during storm events

Since the completion of the SWMP, the City has completed and is currently utilizing a permanent material separator for stockpiles of sand/soil/gravel/cold mix/decomposed granite. The Operation Center supervisor regularly holds meetings at which storm water pollution prevention and BMP implementation for specific activities at the Operation Center are covered. Supervisors inspect the Operation Center routinely, and the catch basin filters are inspected monthly, before rain events, and after rain events.

Erosion and Sediment Control

During the 2005/2006 reporting period, the City continued to implement and maintain erosion and sediment control BMPs. City staff routinely inspected BMPs at municipal facilities to ensure effective stabilization of sediment. In many instances, the City preserves existing vegetation and incorporates native vegetation into landscaping design to minimize the need for erosion control measures and excessive irrigation. Where necessary, the City employs BMPs such as mulches, geotextiles, silt fences, and fiber rolls to prevent erosion and sediment transport. Gravel bags, fiber rolls, and/or filter fabric are placed around storm drain inlets to prevent sediment from being discharged into the MS4. Filter inserts installed in storm drains along University Avenue and at the Public Works Operation Center also

help to mitigate sediment discharges. To minimize sediment transport via over-irrigation the City has installed an irrigation control system that is discussed later in this section.

Roadway and Bridge Maintenance

The street maintenance supervisor monitors the street sweeping activities conducted by an outside contractor. The street sweeping schedule is as follows:

- Downtown areas weekly
- Residential areas weekly or monthly
- Parking lots and parking areas at municipal parks weekly
- Center islands twice per month
- Public Works Operation Center once or twice weekly
- All streets can receive extra sweeping upon request

The City maintains 19 permanent posted street signs that inform the public that parking is prohibited during street sweeping days; tickets are issued to vehicles that have not been moved. Additional sweeping may also be provided upon request. In such instances, the City posts temporary signs to ensure the entire street area can be reached.

City street sweeping efforts removed approximately 803 tons of debris from the 8,280 curb miles that were swept during this reporting period. On average, 690 curb miles were swept each month. The street maintenance supervisor estimated that approximately 80 percent of the debris collected was sediment, while 20 percent was composed of organic debris and trash. The estimated percent composition is similar to that observed in previous years.

Material Management

The City continued to recognize the need for proper BMP implementation in managing materials and wastes generated by municipal activities. Due to the nature of the activities, it is essential that the proper steps be taken to reduce potential storm water pollution. The City continues to manage materials associated with paving and concrete pouring as follows.

- Paving does not take place during rain events and is minimized during the wet season.
- Paving materials are stored away from drainage areas if possible.
- Paving equipment is cleaned off site or in designated cleaning areas.
- Concrete handling procedures include storing material under cover and away from drainage areas.
- Concrete and asphalt materials recovered during routine repairs are recycled.
- Concrete trucks are cleaned off site or at designated areas on site. When necessary, drains are blocked off with appropriate BMPs to prevent discharge of concrete wash

water from entering drainage areas. Although all concrete work is done with contracted staff, the implementation of the aforementioned BMPs is ensured via submittal of a BMP plan, in compliance with the required BMPs in Appendix C of the City's JURMP, and via monitoring by the City's inspectors.

- Stored materials such as sand, soil, gravel, cold mix, and decomposed granite are stored in a permanent materials separator.

Additionally, the City continues to utilize other pollution prevention measures and BMPs for specific activities that are included in the City of La Mesa Municipal Program Storm Water Best Management Practices Notebook (Attachment 2.1).

Municipal Vehicle Maintenance Facilities

The City's JURMP inventory includes the Municipal Vehicle Maintenance Facility, which is part of the City's Public Works Operation Center. Therefore, the facility is included in the Public Works Operation Center SWMP, which accordingly includes pollution prevention measures and selected BMPs for vehicle maintenance. Education, training, and proper BMP implementation are necessary to ensure that routine vehicle maintenance does not introduce pollutants to the MS4.

This reporting period, the City maintained its 196 municipal vehicles, which include the following vehicle types:

- Dump Trucks
- Fire Trucks
- Pavers
- Street Sweepers
- Police Cars
- Rider Mowers
- Tree Service Trucks
- Trailers
- Heavy Duty Trucks, Medium Duty Trucks, and Light Duty Trucks

Routine maintenance of these vehicles can potentially introduce pollutants such as oil, grease, metals, and detergents into the City's MS4 if not conducted properly. During this reporting period, the City continued to implement a number of BMPs during routine maintenance activities. Vehicle maintenance checks occur every 5,000 miles or annually, whichever comes first. Additionally, vehicle operators check their vehicles every Monday for leaks. Spill response kits are available throughout the facility in case there is a spill, and absorbent material is used to treat oil stains and is swept up weekly, at minimum. Oil changes are conducted every 5,000 miles under typical fleet maintenance procedures. The

City utilizes formulated Hydrotex lubricants to minimize the frequency of oil changes, and depending on the type of vehicle and its use, oil changes may be conducted every 9,000 miles rather than every 5,000 miles. Less frequent oil changes helps minimize the quantity of used oil generated.

To prevent pollutant discharge from vehicle washing activities, the City utilizes a wash rack to wash City vehicles. The wash rack captures all wastewater, which is subsequently directed to a clarifier and then discharged into the sewer system. This prevents the potential discharges of many of the common pollutants generated by vehicle washing activities, such as oil and grease, metals, sediment, and surfactants.

To prevent sediment, organic debris, and trash from entering the storm drain system at the Public Works Operation Center, the City continues to sweep the area twice a week or as necessary. Additionally, the City has installed storm drain inlet filters to catch sediment and hydrocarbons before they enter the MS4.

Landscaping Maintenance

The City maintains 22 public parks and recreational areas. The Parks section of the Public Works Department is in charge of the maintenance and landscaping at these facilities. Parks staff are trained in properly implementing BMPs during the application of fertilizers, pesticides, and herbicides. Additionally, the Parks maintenance staff is responsible for maintaining the pet waste cleanup bag birdhouses and the Calsense irrigation control system, which is discussed in detail later in this section. The City has also implemented the Adopt a Park Program to involve citizens in keeping City parks clean. The City's Canine Corners program involves residents in cleaning up pet waste from a designated dog area at Harry Griffen Park. During the reporting period, the City initiated development of an ordinance to prohibit smoking at City parks, which should reduce accumulation of cigarette debris.

Educating City employees is crucial in proper BMP implementation, and maintaining effective pollution prevention programs. City employees are trained in BMP implementation including the proper storage of chemical materials, selecting less toxic materials for application, and applying chemicals seasonally during dry periods to minimize the threat to storm water quality. The City continues to practice IPM by minimizing the use of harmful chemicals. A list of BMPs for the use of pesticides, herbicides, and fertilizers are presented in Section 2.6 of the JURMP. The City continued to implement the BMPs presented in the JURMP, and no changes have been made to those BMP requirements during the reporting period.

As discussed earlier, The Parks Department actively utilizes BMPs to prevent potential pollutants from entering the storm drain system. The BMPs, presented in the City's JURMP, outline the proper methods for the disposal of landscape waste, and minimizing fertilizer runoff. Additionally, The Parks Department implements BMPs to minimize trash, organic

debris, and other pollutants from entering the City's MS4. During this reporting period, the City implemented the following BMPs and activities to prevent storm water pollution:

- Landscaped irrigation areas throughout the City are monitored by licensed city personnel to ensure irrigation systems are handled properly.
- The City continues to maintain native vegetation as the landscaping in portions of Briercrest Park to minimize the need for pesticides, fertilizers, and irrigation.
- City personnel maintain the appropriate certification necessary for fertilizer, herbicides, pesticide, and irrigation application. To maintain certification, personnel must attend additional and refresher training courses during the year.
- The City monitors its irrigation systems carefully and the systems are adjusted regularly to minimize over-irrigation and runoff. Drip irrigation is used when possible. Nearly all of the City parks have been brought online with the computerized irrigation system Calsense, which is described in detail later in this section.
- The City uses only herbicides that are very quickly absorbed into the plant material and are inert once in contact with the soil.
- Pesticides and fertilizers are not applied prior to storm events, or when there is a likelihood of potential transport into storm water runoff. Only low pressure and low volume are used during applications to minimize over application, and to prevent any pollutants from accidentally being spilled.
- Pesticides and herbicides continued to be used for weed and rodent control only as needed. The program is strictly monitored by the California State Department of Pesticide Regulation (DPR) through several sections of the California Code of Regulations. Approximately 71 pounds of rodent control substances were used this reporting period.
- A Licensed Pest Control Advisor and Qualified Applicator Certificate holder continued to conduct inspections to monitor the storage, handling, and disposal of pesticides during each application.
- The City continues to mulch bare ground areas as a method to reduce the need for pesticides, excessive irrigation, and to reduce erosion potential.
- Weed control is also performed by manual techniques such as weed whips and hoeing for weed control, where practicable.
- The City continues to use pressure and soapy water sprays for insect control in place of pesticides, when practicable.
- Fertilizers continue to only be applied to turf areas during the growing seasons: spring, summer, and fall. Application is conducted as per label instructions dealing with amounts per acre and the needs of the area involved. City staff ensures that

any spills of fertilizer are swept up immediately. This reporting period, the city used 11.3 tons of fertilizer.

Calsense Computerized Central Irrigation Control

The City recognizes the difficulty in preventing over-irrigation with a standard irrigation system. Rather than continually maintaining faulty manual irrigation methods, the City has implemented an advanced irrigation monitoring system called Calsense. Calsense minimizes over-irrigation and thus also results in a reduction in discharges of any pollutants carried via such flows.

The Calsense system has the ability to monitor irrigation by including the use of master valves and flow sensing to prevent over-irrigation and also lower water usage. By lowering water usage and also lowering the amount of labor that needs to be invested in irrigation, Calsense benefits the City by reducing costs. A break in the system is recognized as a high flow, and the system is shut off until it is repaired. The use of this technology allows the City to prevent major leaks and detect them earlier than with a manual system. The automatic shutoff by Calsense saves thousands of gallons of water and prevents the runoff from carrying pollutants from the parks, streets, and municipal facilities into the storm drain system. The irrigation system can be controlled by a central computer, which calculates the best time for irrigation based on moisture readings, weather, and real time flow rates at every valve. Additionally, the system allows staff to manage the system more efficiently and with less chance of over-irrigation. The irrigation schedules can be designed for a long period of time or easily modified for weekly or daily needs if necessary. The system allows for the most efficient usage of water while minimizing the chance of over-irrigation and consequent introduction of pollutants to the City's MS4.

The City continues to work to convert the irrigation systems of City facilities, particularly parks, to the Calsense system. This reporting year, five new Calsense systems were installed throughout the City. A total of 20 locations have now been equipped with Calsense; Attachment 2.2 provides a list of those facilities and indicates the sites that have been newly equipped with Calsense in 2005/2006.

Trash and Debris

As part of the routine maintenance schedule, the City continues to remove trash and debris from the municipal and recreational areas. City supervisors regularly remind City staff of the importance of implementing BMPs such as good housekeeping, preventing trash from organic debris from entering the City's MS4, keeping dumpster lids closed, and ensuring timely service to dumpsters at City facilities.

A potential pollutant source found in the City's parks is pet waste. The City continues to maintain birdhouses at its parks with plastic bags for pet owners to clean up after their pets. This reporting period, 16 new birdhouses were installed, and now all 14 parks have one or

more birdhouses for easy access by park patrons. A total of 4,500 bags were used this reporting period. The City plans to continue to maintain these birdhouses and refill them as necessary. Volunteers also clean up pet waste at Harry Griffen Park on a daily basis for the City's Canine Corners program. The City hosted Park Appreciation Day, during which 75 volunteers removed over three tons of trash and debris from all 14 municipal parks.

Sanitary Sewer, Drainage, and Storm Water Section

During this reporting period, the City continued to maintain two vactor trucks to aid in cleaning activities. One of the vactor trucks is dedicated specifically to sanitary sewer system cleaning and maintenance. The second vactor truck is used only for storm drain maintenance and cleaning. Last reporting period, the City installed 22 filter inserts in the University drainage basin to help control trash, debris, sediment, and oil and grease. During this reporting period, the City continued to maintain these filters to ensure maximum efficiency. The inserts were found to be successful in preventing pollutants such as trash, debris, sediment, and oil and grease from entering the storm drain system. The inserts were cleaned three times during this reporting period, removing a total of 18 cubic yards of debris comprising of mostly sediment and trash. The composition of the material was estimated at 80 percent sediment and 20 percent trash.

As with previous years, the City continued to inspect the MS4s twice during the year: once prior to the start of the wet season in October and again during the spring. The storm drain system includes approximately 400 curb inlets and catch basins and more than 50 miles of pipes and channels. The City maintained, inspected, and cleaned 100 percent of the cleanout locations in its storm drain system. During routine maintenance and cleaning, City staff removed an estimated 178 cubic yards of debris from storm drain pipes and inlets. Approximately 300 linear feet of CMP were rehabilitated or replaced with HDPE or RCP. Nine catch basins were also repaired during 2005/2006.

The City maintains seven open improved channels, and the debris from the channels is removed by hand rather than by the use of heavy equipment. The City continued to utilize probation crews to maintain portions of improved channels by removing trash and debris. Approximately eight to 13 individuals participated in each event for a total of eight days out of the 2005/2006 reporting period. The City cleans the channels twice a year, and this year collected approximately 25 cubic yards of trash and debris by hand. The City also participates in the regional Channel Maintenance Workgroup, which is working with the RWQCB, the California Department of Fish and Game, and the Army Corps of Engineers to develop a process through which permits for maintenance of sediment and vegetation in channels may be obtained.

Wastewater Operations

During this reporting period, the City continued to maintain a Sewer Overflow Prevention Plan and a Sewer Overflow Response Plan in the event that there is a spill. The City also continued to maintain 33 signs at various canyon locations throughout the City jurisdiction,

which have emergency contact information for reporting any observed discharges that otherwise may go unnoticed by City staff. These signs aid the City in responding to illegal discharges and sanitary sewer overflows (SSO) quickly and efficiently to reduce or eliminate the potential pollution sources from coming in contact with receiving waters. This reporting period, City staff noted a decrease in the number of SSOs related to private sewer laterals, and only one spill from a private lateral was noted. The City continues to assist property owners with private lateral maintenance and the decreasing trend may be a result of the City taking an active role in repairing many of the private laterals that were experiencing chronic SSOs. The City assists private lateral overflows on a limited basis, specifically when there is a threat to receiving waters. There were two sewer overflows during this reporting period, a decrease from four in the last reporting period. The first overflow occurred on August 3, 2005 from a private lateral at the Crossroads Mall in La Mesa. The inlet was protected to stop additional discharge, and a private plumbing company was called to remedy the blockage that caused the overflow. The City required the property management to backwash the storm drain and capture all wastewater for proper disposal. It was estimated that less than 100 gallons of sewage may have been discharged to the storm drain system. An NOV was also issued to the property management company. The second overflow occurred on June 16, 2006, and was caused by a grease blockage. An estimated 140 gallons were released, but all overflow was entirely captured before reaching University Channel. The conveyance system was flushed to prevent possible future problems in the same location. More detail about both of these spills is provided in Section 8 of this JURMP Annual Report.

Grease can accumulate in sanitary sewer pipes as a result of improper grease disposal. The City is anticipating development of a Fats, Oils, and Grease (FOG) program; such FOG programs typically focus on eating establishments. The FOG program will be intended to reduce the number of SSOs caused by grease blockages in the sanitary sewer system. The City and the San Diego County Green Business Program jointly hosted a workshop for restaurants during the reporting period. Proper grease disposal was one of the topics covered in the workshop; more information about the event is included in Section 4 and Section 9 of the Annual Report.

Sanitary Sewer System Condition and Assessment

As previously discussed, the City continues to inspect and clean the sanitary sewer system as necessary to prevent SSOs. The physical condition of the sewer system is monitored by a private contractor under a five year contract, which is currently in its final year. Under this contract, 90,400 linear feet of sewer line were televised and assessed this reporting year for potential blockages and other problems in the line. The City installed, rehabilitated, or replaced approximately 15,705 linear feet of public sewer lines during the reporting period. The City has also secured a \$14.5 low-interest loan from the State Water Resources Control Board (SWRCB). The funding will be used to rehabilitate and upgrade the City's aging sewer system in older and hillside sections of the City. The project is scheduled to be

completed in 2008. Overall, this project represents the largest infrastructure project ever undertaken by the City.

San Diego County Municipal Storm Water Copermittee Meetings

The City's Environmental Specialist continues to attend and participate in the San Diego County Municipal Storm Water Copermittee meetings. The regional meetings are designed for Copermittees to meet and discuss recent activities and progress in implementing the NPDES Storm Water Program in their jurisdiction. Participation in these meetings allows the City of La Mesa to share and gather information to maximize the success of the NPDES program.

San Diego Bay and San Diego River WURMP Group Meetings

The City continues to participate in program development by attending the WURMP group meetings for both San Diego River, and San Diego Bay. The City boundaries span the two watersheds and they attend meetings for each. These meetings coordinate activities within each watershed, such as the Watershed Stewards Program in the San Diego Bay Watershed, which is discussed in later sections of this report.

INSPECTIONS

The Municipal Permit states in F.3.a.(7) Inspection of Municipal Areas and Activities (Municipal) "At a minimum, each Copermittee shall inspect high priority municipal areas and activities annually. Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order". The MS4 and the roads, streets, and highways, both of which are listed as high priority facilities, were cleaned out and swept as described earlier in this section. The City also inspected all of the other eight high priority municipal facilities, which are fixed buildings or parking lots, during the reporting period.

The City's Environmental Specialist conducted the inspections of the eight high priority facilities, completing an inspection form for each site. Half of the facilities were public parking lots, and the other half were areas within the Public Works Operation Center. No violations were noted at any municipal facilities during this reporting period, although most facilities did require minor corrective actions. The following lists the common problems/recommended corrective actions noted during inspections.

- Minor trash and debris were noted in dumpster areas, and dumpster lids were observed open.
- Sediment was observed in parking areas, and increased sweeping frequency was recommended.
- Oil stains were observed in parking areas.
- Some equipment was not covered or did not have secondary containment.

After each inspection, the City's Environmental Specialist provided copies of the inspection findings to the Public Works Supervisor for review, and subsequent corrective actions were noted. These corrective actions were explained in detail by the City's Environmental Specialist to ensure they are implemented and maintained properly. In addition, recommendations to reinforce good housekeeping measures were then emphasized.

COMPLIANCE & ENFORCEMENT

The City's enforcement mechanism is included in Section 2.8 of the City's JURMP. The City's Environmental Specialist conducts inspections and issues corrective actions to ensure that facilities are in compliance with the City's BMP requirements and City Ordinances. As previously mentioned, municipal facilities are notified of their BMP deficiencies and provided verbal and written documentation of necessary corrective actions. The City's Environmental Specialist actively follows up with facilities to ensure that they have effectively implemented corrective actions.

The procedures for corrective and enforcement actions include those listed below.

- Verbal warnings
- Written warnings
- Disciplinary action against a City employee
- Enforcement of contracts
- Stop work orders
- Denial and revocation of permits
- Civil and criminal Court Actions

During this reporting period, minor corrective actions were required of the four facilities that make up the Public Works Operation Center. These corrective actions were generally related to good housekeeping measures, such as keeping dumpster lids closed and keeping parking areas free of sediment. On September 16, 2005, the City's Environmental Specialist conducted follow-up inspections at the Public Works Storage Yard, the Public Works Fleet facility, the Public Works Storage/Maintenance facility (Building 200), and the Public Works Yard. At each of these sites the previously recommended corrective actions had been implemented such that no further action was necessary.

TRAINING, EDUCATION AND OUTREACH

Pollution prevention relies on training, education, and outreach. Educational opportunities for Public Works employees are essential in an effective storm water example because the City sets an example for its residents. The City has previously developed a Municipal Program Storm Water BMP Notebook (Attachment 2.1) and distributed it to all Public Works employees; this reporting period the notebook was issued to all new employees. The

following is a list of training, education, and outreach activities conducted during this reporting period. Sign in sheets from the training sessions are included as Attachment 2.3.

- The City's Environmental Specialist held an NPDES training session for three City employees on 12/9/2005. The workshop also included watershed concepts as well as the BMPs included in Appendix C of the City's JURMP.
- An overview of the NPDES program was presented to the Mayor and City Council Members on 5/23/2006. The presentation was also broadcast on television.
- The City conducted a total of three Construction Inspection Field Exercises for City Inspectors. These exercises were designed to be a more effective means of educating site inspectors through field experience. This type of training ensures that inspectors, especially new inspectors are inspecting facilities properly. In addition to the field exercises, the City also held an NPDES Storm Water Construction Site management to discuss building permits and the inspection program with City staff members.
- New City storm water inspectors were provided with an NOV procedural sheet outlining the proper procedures for issuing an NOV (Attachment 2.4)
- The City conducted a BMP training session regarding spill containment for street maintenance employees on 7/5/2005, two employees attended.
- The City conducted a BMP training session regarding job site protection training session for street maintenance employees on 7/11/2005, five employees attended.
- The City conducted a BMP training session regarding fertilizer application for park maintenance employees on 8/2/2005, nine employees attended.
- The City conducted a BMP training session regarding equipment cleaning for street maintenance employees on 8/8/2005, six employees attended.
- The City conducted a BMP training session regarding storm water for park maintenance employees on 10/11/2005, nine employees attended.
- The City conducted a BMP training session for street maintenance employees on 11/14/2005, five employees attended.
- The City conducted a BMP training session for street maintenance employees on 2/13/2006, five employees attended.
- The City conducted a BMP training session for park maintenance employees on 2/14/2006, 15 employees attended.
- The City conducted a BMP training session regarding irrigation runoff for park maintenance employees on 2/21/2006, 15 employees attended.
- The City conducted a BMP training session regarding material storage for park maintenance employees on 3/7/2006, 15 employees attended.

- The City conducted a BMP training session for park maintenance employees on 4/4/2006, 14 employees attended.
- The City conducted an NPDES training session for park maintenance employees on 6/28/2006, nine employees attended.
- The City's Environmental Specialist attended two full day Building Industry Association (BIA) training sessions on SWPPP information and regulations for construction activities.
- The City has continued to distribute a BMP notebook entitled the "City of La Mesa Municipal Program Storm Water Best Management Practices Notebook" (Attachment 2.1) to new municipal staff. This reporting period, about five additional copies were circulated. This notebook contains BMP fact sheets relating to municipal activities and is designed to be kept by the staff members as a reference guide when needed.
- An informational Storm Water Bulletin Board offering BMPs for both residents and businesses, as well as watershed concepts, HHW and electronic disposal events, and other upcoming community events. The bulletin board also offers various brochures and information available to take home such as the "Litter Bugs" brochure, and a storm water door hanger. Copies of the 2002 La Mesa Focus special issue newsletter regarding storm water are also provided. A photo of the bulletin board and all aforementioned media available at the bulletin board is included as Attachment 2.5.

As a means of assessing knowledge among City employees and effectiveness of educational programs, an NPDES Knowledge/Awareness Assessment Test was given to Public Works employees (Attachment 2.6). The 10 multiple choice questions covered topics such as good housekeeping measures, BMPs, illegal discharges, and the difference between the storm drain and sanitary sewer. The test has been administered a total of three times: March 2005, June 2005, and June 2006. Exam results are presented in detail in Section 9 of this report.

IMPLEMENTATION PLANS FOR 2006/2007

The following are proposed for the next reporting period:

1. Continue routine maintenance of municipal facilities to ensure proper BMP implementation for erosion and sediment control, roadway and bridge maintenance, material management practices, municipal fleet maintenance facilities activities, landscaping maintenance, trash and debris removal, sanitary sewer, drainage, storm water upkeep activities, wastewater operations management, and attending workgroup meetings.
2. Continue providing education and training to City staff on storm water quality issues.

3. Continue to distribute the City of La Mesa Municipal Program Storm Water BMP Notebook to new employees. Provide refresher trainings and educate employees to keep them up to date.
4. Continue to inspect high priority municipal facilities on an annual basis and low priority municipal facilities once through the life of the permit.
5. Continue implementing condition assessment procedure of corrugated storm drain pipes.
6. Continue the Storm Water kiosks project in Harry Griffin Park, Briercrest Park, and La Mesita Park. These kiosks will provide educational materials about storm water pollution prevention and watershed information and are described in more detail in Section 9 of this report.
7. Maintain as well as continue to pursue implementation of Calsense in additional City facilities.
8. Maintain the birdhouses containing pet waste bags at the City parks.

JURMP UPDATE

The Municipal Inventory has been updated to reflect the removal of the Fire Administration Building from the inventory.

Table 2.1
Municipal Facilities Inventory

#	MUNICIPAL FACILITY	FACILITY ADDRESS	DRAINAGE	WATERSHED	PRIORITY
1	Public Works (PW) Yard	8152 Commercial Street	AC	San Diego River	High
2	PW Fleet	8152 Commercial Street, Building 400	AC	San Diego River	High
3	PW Storage and Maintenance	8152 Commercial Street, Building 200	AC	San Diego River	High
4	PW Storage Yard	8152 Commercial Street	AC	San Diego River	High
5	Palm Avenue Lot (Parking Facility)	Palm & Lemon Avenues	AC	San Diego River	High
6	Allison Avenue Lot (Parking Facility)	Palm & Allison Avenues	AC	San Diego River	High
7	La Mesa Blvd (Parking Facility)	La Mesa Blvd & Acacia Avenue	UC	San Diego Bay	High
8	Lemon Ave Lot (Parking Facility)	Lemon Avenue & 3rd Street	SV	San Diego Bay	High
9	Municipal Separate Storm Sewer	53 miles of pipes, storm drains, storm drain boxes, and open channel sections throughout the City	Throughout City	San Diego Bay/ San Diego River	High
10	Roads, Streets, and Highways	400 miles of roadways throughout the City	Throughout City	San Diego Bay/ San Diego River	High
11	Collier Park and Pump House	4401 Palm Avenue	SV	San Diego Bay	Medium
12	Community Pool	5100 Memorial Drive	AC/UC/SV	San Diego River/ San Diego Bay	Medium
13	Fire Station No. 11	8034 Allison Avenue	UC	San Diego Bay	Medium
14	Fire Station No. 12	8834 Dallas Street	AC	San Diego River	Medium
15	Fire Station No. 13	9110 Grossmont Boulevard	AC/SV	San Diego River/ San Diego Bay	Medium
16	MacArthur Park	University Avenue and Memorial Drive	AC/UC/SV	San Diego River/ San Diego Bay	Medium
17	Police Station	8181 Allison Avenue	AC	San Diego River	Medium
18	PW Maintenance Building	8152 Commercial Street, Building 100	AC	San Diego River	Medium
19	PW Traffic Operation Trailer	8152 Commercial Street, Building 600	AC	San Diego River	Medium
20	Aztec Park	Corner of Aztec Drive and Morocco Dr.	AC	San Diego River	Low
21	Briercrest Park	9000 block Wakarusa Street	AC	San Diego River	Low
22	City Hall and Modular Buildings	8130 Allison Avenue	UC	San Diego Bay	Low

Table 2.1 (Continued)
Municipal Facilities Inventory

#	MUNICIPAL FACILITY	FACILITY ADDRESS	DRAINAGE	WATERSHED	PRIORITY
23	City Hall Annex	8130 Allison Avenue	UC	San Diego Bay	Low
24	Community Center	4975 Memorial Drive	AC/UC/SV	San Diego River/ San Diego Bay	Low
25	Harry Griffin Park	9550 Milden Street	AC	San Diego River	Low
26	Helix Water District	7911 University Avenue	UC	San Diego Bay	Low
27	Highwood Park	4200 Parks Avenue	AC	San Diego River	Low
28	Historical Society	8369 University Avenue	AC/UC	San Diego River/ San Diego Bay	Low
29	Jackson Park	Jackson Drive and Laird Street	AC	San Diego River	Low
30	Junior Seau Sports Complex	9001 Park Plaza Drive	AC	San Diego River	Low
31	La Mesita Park and Gardener's Shack	8855 Dallas Street	AC	San Diego River	Low
32	Library/Fine Arts	8055 University Avenue	UC	San Diego Bay	Low
33	Nan Coutts Cottage (Recreational Bldg)	4875 Memorial Dr.	AC/UC/SV	San Diego River/ San Diego Bay	Low
34	Northmont Park	Severin Drive and Amaya Drive	AC	San Diego River	Low
35	Porter Hall	4910 Memorial Drive	AC/UC/SV	San Diego River/ San Diego Bay	Low
36	Porter Park	8425 University Avenue	UC/SV	San Diego Bay	Low
37	Postal Facility	4800 Nebo Drive	UC	San Diego Bay	Low
38	PW Administration	8152 Commercial Street, Building 300	AC	San Diego River	Low
39	PW Document Storage	8152 Commercial Street, Building 500	AC	San Diego River	Low
40	Recreation Center	4975 Memorial Drive	AC/UC/SV	San Diego River/ San Diego Bay	Low
41	Rolando Park	Alamo Way and Vigo Street	UC	San Diego Bay	Low
42	Senior Adult Center, Shuffle Board Building and Gardener's Shack	8450 La Mesa Boulevard	UC/SV	San Diego Bay	Low
43	Shuffle Board Club	8425 La Mesa Boulevard	UC/SV	San Diego Bay	Low
44	Sunset Park, Gardener's Shack and Recreational Building	5540 Lake Park Way	AC	San Diego River	Low

Table 2.1 (Continued)
Municipal Facilities Inventory

#	MUNICIPAL FACILITY	FACILITY ADDRESS	DRAINAGE	WATERSHED	PRIORITY
45	Sunshine Park	70th and Tower Street	AC	San Diego River	Low
46	Vista La Mesa Park	King and Hoffman Street	UC/LG	San Diego Bay	Low

Notes

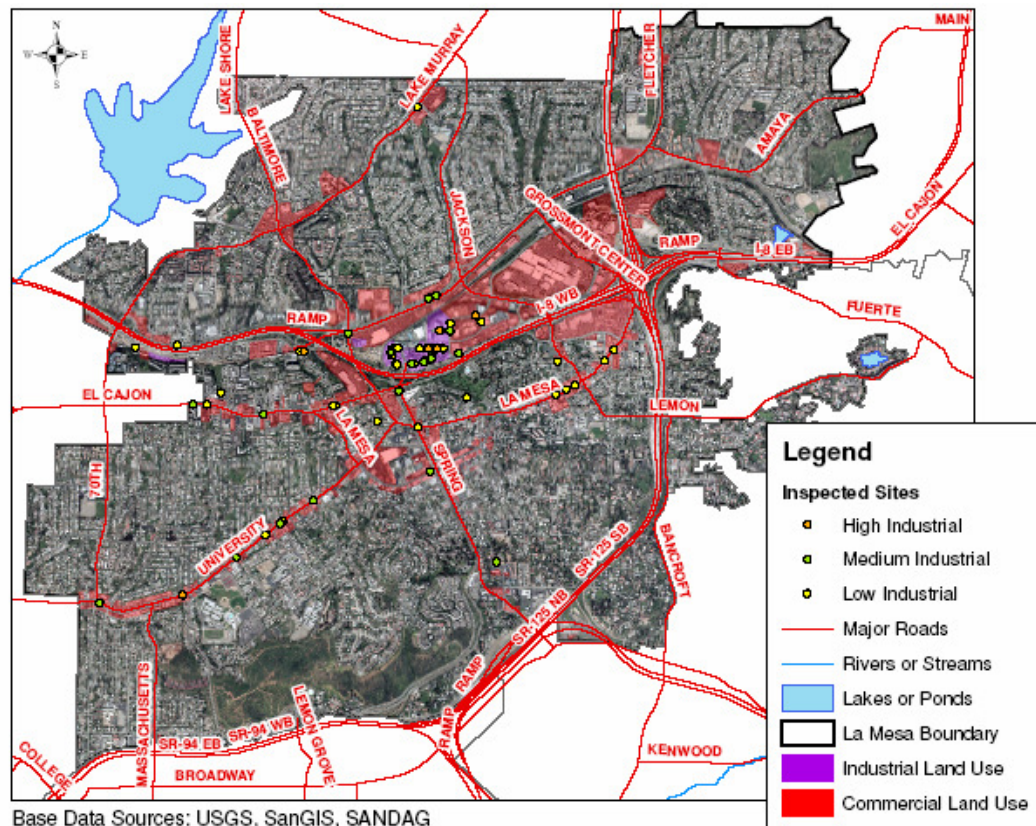
AC = Alvarado Channel
UC = University Channel
SV = Spring Valley
LG = Lemon Grove

3 INDUSTRIAL

During the 2005/2006 reporting period, the City of La Mesa continued to mitigate urban runoff pollution by implementing the industrial component of the City's JURMP. The basic components of the City's industrial program include site identification and prioritization, pollution prevention measures, circulation of required general and activity-specific BMPs, education, compliance inspections, and as-needed enforcement actions. In addition to these actions, the City also requires that all high priority industrial sites conduct monitoring during qualifying rain events in accordance with the Municipal Storm Water Permit. Eight industrial inspections were conducted at a total of seven facilities during this reporting period. One of the inspections was conducted by the RWQCB.

Figure 3.1, below, depicts the low, medium, and high priority industrial facilities in the City of La Mesa. Purple areas delineate the industrial areas, and commercial areas are shown in red as a reference. The six high priority industrial facilities that received annual inspections by the City's Environmental Inspector are shown as an orange dot. Medium industrial facilities are shown as a green dot, and low priority facilities are yellow. Most La Mesa industrial business are fairly small scale operations, and some are located in areas zoned for commercial use.

Figure 3.1
La Mesa Industrial Facilities



PRIORITY INDUSTRIAL SOURCES

In this reporting period, the City prioritized industrial facilities and their inventories as follows: six high industrial, 25 medium industrial, and 39 low industrial. These facilities were prioritized based on SIC codes, proximity to sensitive water bodies, whether they had filed an NOI to obtain coverage under the Industrial Permit, and the findings of the most recent storm water compliance inspections. Facilities are added or removed from the JURMP on an ongoing basis. Facilities with mandatory SIC codes, facilities within 200 feet of a sensitive water body, and facilities deemed to be a high threat to water quality are listed as high priority industrial. Most facilities included in the City's medium priority industrial inventory are conditionally subject to the Industrial Permit based on their SIC codes; these businesses may qualify for a Notice of Non-Applicability/No Exposure Certification (NONA/NEC) if they do not have any outdoor exposure, which exempts them from the requirements of the Industrial Permit. The remaining industrial businesses in La Mesa are mostly contractors or wholesalers and have been classified as low priority industrial.

As noted in past years, the State of California's database of businesses subject to the Industrial Permit lists two *Dixieline Lumber* facilities in the City of La Mesa. Although *Dixieline Rancho San Diego* is listed with a La Mesa address, the facility is actually located outside the City's jurisdiction; thus, the City's of La Mesa's high priority industrial inventory does not include this facility.

During the reporting period, Mike's Custom T-Shirts was reprioritized from medium priority industrial to high priority commercial based on the finding that industrial activities do not take place at the site. Aside from that change, the City's industrial inventories remained the same as in 2004/2005. The facility inventories are presented in tables 3.1, 3.2, and 3.3, respectively.

Active collaboration between the City's Environmental Specialist and the business license office to discuss the assignment of SIC codes to new businesses allows new businesses to be prioritized and inspected if necessary on a timelier basis. This collaboration between the City's Environmental Specialist and the business licensing officer occurs on a weekly basis. Better coordination between these offices has led to a more accurate and efficient method of maintaining the City's JURMP inventories, ensuring that businesses have the correct SIC codes, and determining the proper businesses for inspection.

POLLUTION PREVENTION

The City of La Mesa requires industrial facilities to be held accountable for their pollution prevention measures and potential discharges. Actively participating in pollution prevention measures reduces the risk of serious pollutant discharges and is usually more simple and economical than remediation measures. Section 3.1 of the City's JURMP presents a number of pollution prevention methods, such as using smaller quantities of toxic material by substituting with less toxic material, changing production processes to reduce waste, decreasing waste water flow, and recycling waste as part of the production

process. Businesses are educated about reducing pollution via storm water educational materials and during storm water compliance inspections, when inspectors provide site-specific recommendations with facility representatives. These representatives are expected to use the information gained from storm water compliance inspections to educate their own employees regarding storm water pollution sources and prevention. In addition, the City has the authority to require any industrial facility to prepare SWPPP if the City determines that it may pose a significant threat to storm water quality.

BMP REQUIREMENTS AND IMPLEMENTATION

Proper storm water BMP implementation is an integral element of the City's pollution prevention program. Section 3 of the City of La Mesa's JURMP includes the required BMPs for industrial facilities, which were selected from Caltrans and California Stormwater Quality Association (CASQA) BMP handbooks. Principle concepts from "A Framework for the Implementation of BMP Programs at Commercial and Industrial Sites (October 2003)" have also been integrated into the City's program; these include BMP selection/application, outreach and notification, audits of BMP implementation, and compliance and enforcement. Businesses must additionally apply activity-specific BMPs, described in JURMP Appendix C.3, as appropriate to their practices and site configurations. In addition to required BMPs for industrial facilities, all industrial sites must implement general BMPs, which are presented in Appendix C.2 of the City's JURMP. The City's program promotes non-structural BMPs as a preventative and cost-effective step to preventing storm water pollution. When non-structural BMPs alone are insufficient to adequately protect water quality, structural BMPs are required. The BMP requirements were not modified during this reporting period.

Each reporting period, the City conducts storm water compliance inspections to ensure that facilities are implementing BMPs properly. The inspection processes is also designed to ensure that facilities do not have any IC/IDs to the MS4. Inspectors are trained to look for any evidence of IC/IDs, including staining along drainage pathways, interior drains that may be connected to the storm drain system, and direct visual observations of improper activities conducted at the time of inspection. Prompt action is taken to eliminate identified IC/IDs. All inspection findings are entered into the City's industrial/commercial database to be collectively reviewed once all inspections are complete. Figure 3.2, on the following page, presents an example page from the database. During such inspections, the City inspector stresses the importance of proper BMP implementation, particularly good housekeeping procedures. Many of the common problems seen during compliance inspections are dumpster lids being open and sediment build up in outdoor areas. The City emphasizes good housekeeping measures and educating employees to reduce the frequency of these common problems. During inspections, it has been noted that the majority of the City's industrial facilities conduct their intensive industrial activities, such as cutting countertops or maintaining buses, indoors. The outdoor industrial activities are usually limited to material storage, loading and unloading, and similar activities. This practice is effective in preventing many of the largest sources of pollutants from contacting storm

water. At facilities where intensive industrial activities are conducted outdoors, more extensive structural or treatment control BMPs may be recommended to reduce the pollutant load to the MEP.

Figure 3.2
Example Page from the City's Industrial/Commercial Database

During the 2004/2005 reporting period, a BMP assessment component was also added to the standard inspection procedure. The City continued to use the BMP assessment during the 2005/2006 reporting period. BMP scores were assigned during inspections based on a scale of 1 (low) to 5 (high). The number of inspections in 2005/2006 did not permit statistical analysis of the BMP scores. BMP scores were recorded at the same six facilities in both 2004/2005 and 2005/2006, which does permit direct comparison for those sites. Scores stayed the same at two sites, decreased at two sites, and increased at two sites. As more data is collected in future years, more sophisticated program assessments may be possible. To standardize evaluations, inspectors use the following rubric:

- Level 5: All required general and activity specific BMPs have been implemented effectively.
- Level 4: BMPs have been implemented effectively but the dumpster lid was observed open and/or oil stains were noted in the general parking lot not associated with this business's activities.
- Level 3: BMPs have been implemented with the exception of two corrective actions noted aside from dumpster lids being open or oil stains in the general parking lot.

- Level 2: Minimal BMP implementation is noted. Three or more corrective actions, with the exception of dumpster lids being open or oil stains in the general parking lot. No illegal discharge or illicit connection was noted.
- Level 1: Violation of the City's Storm Water Ordinances (illegal discharge, illicit connection, complete failure to implement BMPs, and/or significant littering).

During the last reporting period, the City developed a Pollutant Discharge Potential Assessment (PDPA) form. The City plans to begin using this form in following reporting periods when greater numbers of inspections are necessary.

TRAINING, EDUCATION AND OUTREACH

Much of the educational information that is conveyed to industrial businesses is done so through the inspection process. When the City calls business to schedule an appointment, the business is encouraged to ask questions about storm water activities and what to expect during the actual inspection. During the inspection itself, the inspector further educates the facility owner or manager about the storm water program, its goals and objectives, BMP requirements, and good housekeeping methods. The inspector also stresses the importance of educating employees to maximize on site pollution prevention measures and prevent any IC/IDs from entering the MS4. Direct interaction with each business owner or manager during the site visit enables the recommendations and educational content to be tailored to the specific situations and requirements of each facility. The one-on-one interaction also engages the business owner or manager as an active participant in the inspection process. Any recommended corrective actions are discussed with the facility's responsible person at the conclusion of the inspection, and the business is provided a copy of the inspection form including the findings. The following educational materials are also distributed during inspections, as applicable:

- "Preventing Urban Runoff Pollution," an educational guide for both commercial and industrial businesses (Attachment 3.1)
- "San Diego Bay Watershed Fact Sheet" (Attachment 3.2) or "San Diego River Watershed Fact Sheet" (Attachment 3.3), distributed depending on which watershed the business was located in
- "Put Toxic Waste In Its Place," an educational brochure (Attachment 3.4)

During this reporting period, the knowledge assessment component continued to be employed as a means of evaluating the storm water knowledge of the facility manager/owner. The number of questions answered correctly is assigned a rating score of 1 (no questions answered correctly) to 5 (all questions answered correctly). This assessment also provides a standardized outline of topics that will be discussed during the inspection. These scores are intended to help the City to conduct a more quantitative assessment of business' knowledge. As more data is collected in future years, trend analyses can be determined to yield a more sophisticated program assessment. In addition, areas with low scores can be targeted to receive educational material in order to improve their

understanding of storm water issues for future reporting periods. Each facility representative was asked the following series of questions:

- What is storm water?
- What is the difference between storm drain system and the sanitary sewer system?
- Where does storm water flow?
- Is storm water treated prior to discharge?
- What are examples of pollutants?
- Is sediment a pollutant?
- Do you know what good house keeping or best management practices are?
- Do you know what NPDES is or means?

Asking these questions engages the facility representative and the inspector in a conversation about storm water. It also allows the inspector to customize the topics they discuss based on the prior knowledge of the facility representative. Ideally, confusion and/or misconceptions are clarified, concepts are explained, and the facility representative attains a strong sense of what role he or she plays in regard to water quality. Furthermore, the facility representative is encouraged to share such knowledge with their employees. The number of inspections in 2005/2006 did not permit statistical analysis of the knowledge scores. Knowledge scores were recorded at the same six facilities in both 2004/2005 and 2005/2006, which does permit direct comparison for those sites. Scores stayed the same at one site and decreased at one site; note that at the site with the decrease the regional storm water manager was interviewed in 2004/2005 while the onsite management was interviewed in 2005/2006, which likely accounts for the difference. Knowledge scores improved at the other four sites. The City anticipates continued increases in overall and individual facility scores as the program progresses, signifying that educational efforts have been effective.

In addition to inspections, educational articles regarding storm water issues are included in the City's newsletter, the *La Mesa Focus*, mailed to several thousand businesses in the City, including industrial businesses. In this reporting period, the newsletter included three articles entitled "Q: What can I wash down the storm drain? A: NOTHING! Only rain should go down the storm drain," "Summer Storm Water Reminders," and "Don't Wash Money Down the Storm Drain," which was accompanied by "La Mesa's Watersheds." The articles can be found as attachments 3.5, 3.6, and 3.7. Articles were for the August 2006 issue entitled "Summer Storm Water Reminders," "Becoming a Green Business," and "April Creek to Bay Cleanup in La Mesa a Success" were initiated in 2005/2006 (Attachment 3.8). In addition, the articles provide the City's storm water hotline telephone number. The *La Mesa Focus* articles are also discussed in later sections of this Annual Report.

INSPECTIONS

Inspections are the City's means to ensuring that facilities are in compliance with the City's BMP requirements and the Industrial Permit. The City conducts routine, follow-up, and/or complaint investigation inspections at industrial facilities. During each site visit, inspectors complete a storm water compliance inspection form (Attachment 3.9) to assess BMP implementation, compliance with the City's Storm Water Ordinance, compliance with the Industrial Permit, and list recommended corrective actions if necessary. In addition, monitoring data and SWPPPs are evaluated at sites that have filed NOIs. Upon inspection, businesses are verbally informed of any corrective actions. They are also provided a copy of their inspection form and are encouraged to ask questions if something on the form is unclear. The inspection form data are then entered into the City's commercial and industrial inspection database. Further details about the City's inspection method can be found in Section 3.6 of the JURMP.

During this reporting period, the City conducted seven complete industrial inspections. The RWQCB conducted the eighth high industrial inspection of Rainbow Steel, Inc. for reasons mentioned later in this section and detailed in Section 13 of this report. All high priority industrial facilities were thus inspected during the 2005/2006 reporting period. Table 3.4 lists the results of all industrial inspections conducted during the reporting period, including any recommended corrective actions. All industrial facilities have been inspected at least once during the life of the Municipal Permit.

COMPLIANCE AND ENFORCEMENT

Inspections are designed to determine any deficiencies a business may have in their BMP implementation and to ensure compliance with the Permit requirements. These inspections are conducted by trained inspectors who inform the facility managers and/or owners of their deficiencies or violations both verbally and in writing.

All inspected businesses were notified of required corrective actions via a copy of the completed inspection forms. One business, Interamerica Stone Design, Inc. was found to be in violation of the General Permit. During previous inspections this business had been instructed to obtain coverage under the Permit and to develop and maintain a SWPPP and monitoring program. Due to its failure to comply with Permit requirements, Interamerica Stone Design, Inc. was issued an NOV after the inspection toward the end of June 2006. The City will continue to work to bring this business into compliance during the 2006/2007 reporting year.

In accordance with the Municipal Permit, the City requires all high priority industrial sites to collect and analyze storm water samples. Storm water monitoring was conducted at four of the six high priority industrial facilities in the 2005/2006 reporting period. A fifth business, Dixieline Lumber, is part of a group monitoring program and was not scheduled to participate in sampling during this reporting period. The only businesses not in compliance with the storm water monitoring requirements was Interamerica Stone Design, Inc., to which the City issued an NOV at the end of the reporting period. The City will

continue to work to bring this business into compliance during 2006/2007. During the 2005/2006 reporting period, the City made courtesy calls regarding qualifying rain events to high priority industrial businesses in order to remind the facility operators to collect water samples.

In this reporting period, the City took a major step in its enforcement and compliance responsibility. Rainbow Steel, Inc., a high industrial facility, has been out of compliance with the General Permit and the City's Municipal Storm Water Ordinance. The business had not maintained a SWPPP or monitoring plan and had poor BMP implementation; it was issued two NOVs for improper BMP implementation and failure to implement a SWPPP during the 2004/2005 reporting period. When continued noncompliance was observed during 2005/2006, the City took action by scheduling a meeting with the RWQCB to present documentation of non-compliance and the City's previous enforcement actions. The RWQCB inspected Rainbow Steel, Inc. in January 2006, and the RWQCB issued Cleanup and Abatement Order No. R9-2006-0026 to the business in April 2006. The City has continued to work closely with the RWQCB to resolve this issue. This proactive approach by the City sets a precedent for other industrial facilities and encourages them to be in full compliance to avoid costly legal action. The efforts at Rainbow Steel, Inc. are discussed in further detail in Section 13 of this report.

The City has also developed a follow-up inspection form (Attachment 3.10). The form is designed specifically to address the reason for the follow-up inspection and to ensure that the facility owner understands and has been notified of the suggested and/or required corrective actions.

IMPLEMENTATION PLANS FOR 2006/2007

In the future 2006/2007 reporting period, the City will continue to update its industrial inventories based on inspection findings and regular coordination between the Environmental Specialist and business licensing staff. Inspections of businesses on the high priority industrial inventory will continue to occur on at least an annual basis. The City will also conduct any follow-up inspections needed and investigations of any storm water related complaints received about industrial businesses. The City also began to develop a "Storm Water Pollution Prevention: Over-Irrigation" fact sheet (Attachment 3.11) during the reporting period. The City expects to revise and distribute the fact sheet to businesses and residents in the 2006/2007 reporting period.

JURMP UPDATE

Based on the inspection findings described above and in Table 3.4, the City's industrial inventories and inspections database have been updated. The updated inventories are presented in Tables 3.1, 3.2, and 3.3, respectively. One business, Mike's Custom T-Shirts, was moved from the medium priority industrial facility list to the high priority commercial list in May 2006.

Table 3.1
High Priority Industrial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
1	California Countertop, Inc	7811 Alvarado Rd, La Mesa, CA 91942	3089	San Diego River	Alvarado Channel
2	Dixieline Lumber & Home Centers	8372 Center Dr, La Mesa, CA 91942	2439	San Diego River	Alvarado Channel
3	EDCO Station	8182 Commercial St, La Mesa, CA 91942	4953	San Diego River	Alvarado Channel
4	Interamerica Stone Design, Inc.	8227 Commercial St., La Mesa, CA 91942	1741/3281	San Diego River	Alvarado Channel
5	Rainbow Steel, Inc.	8332 Case St., La Mesa, CA 91942	3441	San Diego River	Alvarado Channel
6	Schaefer Ambulance, Inc.	7285 University Ave, La Mesa, CA 91941	4119	San Diego Bay	University Channel

Table 3.2
Medium Priority Industrial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC	WATERSHED	DRAINAGE BASIN
1	A A Printing, Inc.	7323 El Cajon Blvd, La Mesa, CA 91941	2759	San Diego River	Alvarado
2	A-1 Self Storage	4981 Spring St., La Mesa, CA 91942	4225	San Diego River	Alvarado
3	A-1 Self Storage, Center Dr	8328 Center Dr, La Mesa, CA 91942	4225	San Diego River	Alvarado
4	ABSKO Products	8200 Commercial St, La Mesa, CA 91942	3641	San Diego River	Alvarado
5	American Tanks	8111 Commercial St, La Mesa, CA 91942	3444	San Diego River	Alvarado
6	Barnes Printers, Inc.	8237 La Mesa Blvd, La Mesa, CA 91941	2759	San Diego Bay	University
7	Classic Screen Print	8176 Center St, Ste. C, La Mesa, CA 91942	2759	San Diego River	Alvarado
8	Continuous Wave Tech, Inc. (Charter Delivery Service)	4350 Palm Ave, 27, La Mesa, CA 91941	4215	San Diego Bay	Spring Valley
9	Dasina Building Group	8204 Parkway Dr., #5, La Mesa, CA 91942	2434	San Diego River	Alvarado
10	Embroidery Express	7640 University Ave #B, La Mesa, CA 91941	2395	San Diego Bay	University
11	Equality Plating Co.	8172 Center St, La Mesa, CA 91942	3471	San Diego River	Alvarado
12	Insty Prints	8186 Center St C, La Mesa, CA 91942	2759	San Diego River	Alvarado
13	Joe's Signs	7016 University Ave, La Mesa, CA 91941	3993	San Diego Bay	University
14	L & R Neon	8200 Commercial St., La Mesa, CA 91942	3993	San Diego River	Alvarado
15	La Mesa Printing Center	7468 University Ave, La Mesa, CA 91941	2759	San Diego Bay	University
16	La Mesa Transfer & Storage, Inc.	8336 Case St, La Mesa, CA 91942	4225	San Diego River	Alvarado
17	Lyons & O'Haver, Inc. Taxidermy	8180 Parkway Drive, La Mesa, CA 91942	3999	San Diego River	Alvarado
18	Moran Canvas Products	8135 Center Dr., La Mesa, CA 91942	3444	San Diego River	Alvarado
19	Paul The Greek's Limo Service, Inc.	7589 El Cajon Blvd E, La Mesa, CA 91941	4119	San Diego River	Alvarado
20	Printing By Gwen	7640 University Ave C, La Mesa, CA 91941	2732	San Diego Bay	University

Table 3.2 (Continued)
Medium Priority Industrial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC	WATERSHED	DRAINAGE BASIN
21	Susan G. Holtz Photo Research	8204 Center Dr #20, La Mesa, CA 91942	2741	San Diego River	Alvarado
22	The Little Warehouse	5175 Baltimore Dr, La Mesa, CA 91941	4225	San Diego River	Alvarado
23	Village Awards & Engraving	7769 University Ave, La Mesa, CA 91941	2796	San Diego Bay	University
24	Western Plastics	8183 Center St, La Mesa, CA 91942	3999	San Diego River	Alvarado
25	Wood Design West	8333 Case Street, Ste. C, La Mesa, CA 91942	3999	San Diego River	Alvarado

Table 3.3
Low Priority Industrial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC	WATERSHED	DRAINAGE BASIN
1	A D M Construction	7171 Alvarado Rd #101, La Mesa, CA 91941	1521	San Diego River	Alvarado
2	A-Aairco Air Conditioning	8203 University Ave, Ste A, La Mesa, CA 91941	1711	San Diego Bay	University
3	Ace Coating Co.	8333 Case St., La Mesa, CA 91942	1799	San Diego River	Alvarado
4	Air Best Inc.	8760 La Mesa Blvd., La Mesa, CA 91942	1711	San Diego River	Alvarado
5	Brady Co. / San Diego, Inc.	8100 Center St., La Mesa, CA 91942	1742	San Diego River	Alvarado
6	Bronco Electric	8188 Commercial St, La Mesa, CA 91942	5013	San Diego River	Alvarado
7	C & C Glass, Inc.	8712 La Mesa Boulevard, La Mesa, CA 91942	1793	San Diego River	Alvarado
8	Campbell Exteriors, Inc.	8179 Center St., La Mesa, CA 91942	1761	San Diego River	Alvarado
9	Carini Electric, Inc.	8104 Center St., La Mesa, CA 91942	1731	San Diego River	Alvarado
10	Center Glass Co. #3	7853 El Cajon Blvd., La Mesa, CA 91942	1793	San Diego River	Alvarado
11	Centex Glazing	8260 Commercial St., La Mesa, CA 91942	1793	San Diego River	Alvarado
12	Coast Restaurant Supply	8120 Commercial St., La Mesa, CA 91942	5046	San Diego River	Alvarado
13	Collins Plumbing, Inc.	8130 Commercial St., La Mesa, CA 91942	1711	San Diego River	Alvarado
14	Earl W. Fite & Sons, Inc.	8878 La Mesa Blvd, La Mesa, CA 91942	1711	San Diego River	Alvarado
15	Fox & Turner Construction Co., Inc.	7371 Mohawk St., La Mesa, CA 91942	1742	San Diego River	Alvarado
16	Greater San Diego Air Conditioning	8141 Center St., La Mesa, CA 91942	1711	San Diego River	Alvarado
17	Hallman's Wholesale Jewelry Co	7777 Alvarado Rd. #200, La Mesa, CA 91941	5094	San Diego River	Alvarado
18	Helix Construction Co., Inc.	8103 Commercial St., La Mesa, CA 91942	1751	San Diego River	Alvarado
19	Hunters Construction Co.	7374 El Cajon Blvd., La Mesa, CA 91942	1522	San Diego River	Alvarado
20	I Deal Door & Window Company	7859 El Cajon Blvd., La Mesa, CA 91942	1751	San Diego River	Alvarado

Table 3.3 (Continued)
Low Priority Industrial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC	WATERSHED	DRAINAGE BASIN
21	J.A. MacDonald, Inc.	8338 Center Dr., La Mesa, CA 91942	1522	San Diego River	Alvarado
22	Jackson and Blane Heating and A/C	7576 University Avenue, La Mesa, CA 91941	1711	San Diego Bay	University
23	La Mesa Carpet & Linoleum, Inc.	8674 La Mesa Boulevard, La Mesa, CA 91942	1752/ 5713	San Diego River	Alvarado
24	La Tourrette Painting	8675 Hayes St., La Mesa, CA 91942	1721	San Diego River	Alvarado
25	Lifesighs Cards	8265 Commercial St., #15, La Mesa, CA 91941	5112	San Diego Bay	University
26	Master Electric Company, Inc.	8055 El Capitan Dr., La Mesa, CA 91941	1731	San Diego Bay	University
27	MLS Construction Co.	4950 Pine Street, La Mesa, CA 91941	1522	San Diego Bay	University
28	Pacific Homeworks	7200 Parkway Drive, 105, La Mesa, CA 91942	1751	San Diego River	Alvarado
29	Pacific Southwest Structures	8140 Commercial Street, La Mesa, CA 91942	1771	San Diego River	Alvarado
30	Palmer Painting Company	8104 Center St., La Mesa, CA 91941	1721	San Diego River	Alvarado
31	Primary Mechanical, Inc.	5345 Timken St., Ste E & I, La Mesa, CA 91942	1711	San Diego River	Alvarado
32	Raindance Roofing	8176 Commercial St., La Mesa, CA 91942	1761	San Diego River	Alvarado
33	Residential Heating & AC	7574 University Ave., La Mesa, CA 91941	1711	San Diego Bay	University
34	Shower Walls of San Diego	6063 Lake Murray Blvd., La Mesa, CA 91942	1521	San Diego River	Alvarado
35	Sunset Glazing, Inc.	8834 La Mesa Blvd., La Mesa, CA 91942	1793	San Diego River	Alvarado
36	Talon Auto Adjusters	8163 Commercial Street, La Mesa, CA 91942	5012	San Diego River	Alvarado
37	Thomas Taylor Construction	8189 Center St., La Mesa, CA 91942	1500	San Diego River	Alvarado
38	Tri-Co Floors	7658 University Ave., La Mesa, CA 91941	1752	San Diego Bay	University
39	Walter H. Barber	8179 Center St., La Mesa, CA 91942	1629	San Diego River	Alvarado

Table 3.4
Industrial Inspections Conducted During 2005/2006

#	FACILITY	INSPECTION	CURRENT PRIORITY	CURRENT SIC	RECOMMENDED CORRECTIVE ACTIONS
1	California Countertop, Inc., 7811 Alvarado Rd	6/28/2006	High Industrial	3089	<ul style="list-style-type: none"> • Cover recycle enclosure area (i.e. tarp). • Vacuum plastic dust residue in loading area.
2	Dixieline Lumber & Home Centers, 8372 Center Dr	6/28/2006	High Industrial	2439	<ul style="list-style-type: none"> • Ensure storm drain inlets are cleaned and protected/inspected routinely. • Provide secondary containment and cover for fluids. • Place trash and debris in dumpsters/keep lids closed. • Capture water from potted plants in front of store or minimize over-irrigation/runoff.
3	EDCO Station, 8182 Commercial St	6/28/2006	High Industrial	4953	<ul style="list-style-type: none"> • Sweep sediment on Northwest perimeter and consider protecting storm drain by placing fiber rolls near storm drain inlet. • Continue sweeping in parking area and entrance/exit • Check for over-irrigation and readjust system to minimize runoff/over-spray. • Ensure staff is trained/understand SWPPP. Keep SWPPP available. • Consider keeping a spill log.

Table 3.4 (Continued)
Industrial Inspections Conducted During 2005/2006

#	FACILITY	INSPECTION	CURRENT PRIORITY	CURRENT SIC	RECOMMENDED CORRECTIVE ACTIONS
4	Interamerica Stone Design, Inc.	1/9/2006	High Industrial	1741/3281	<ul style="list-style-type: none"> • File for an NOI and develop and implement a SWPPP and monitoring program. If facility eliminates all outdoor exposure, it may be able to gain an exemption from the storm water monitoring provisions of the Industrial Permit by filing a No Exposure Certification (NEC). • In order to gain exemption from storm water monitoring, eliminate all outdoor exposure - never store sand or other materials outside the building. OR If business chooses to conduct storm water monitoring, ensure that tarps and gravel bags are on hand to cover and contain any sand/etc - stockpiles during rain or wind events. • Be very cautious about dust leaving the facility. Sweep the outdoor area each night, and continue with the daily sweep of the indoor area each morning.
5	Interamerica Stone Design, Inc., 8227 Commercial St.	6/28/2006	Medium Industrial	1741/3281	<ul style="list-style-type: none"> • Sweep spillage residue near dumpster and ensure dust is not tracked out of the building. • Place absorbent pads near cabinet with solvents/other liquids. • File for an NOI, develop and implement a SWPPP and monitoring program. <p>* Note: this facility was instructed to file for an NOI and develop a SWPPP and monitoring program during previous inspections. The business was issued an NOV on the date of inspection for failure to comply with the Industrial Permit.</p>

Table 3.4 (Continued)
Industrial Inspections Conducted During 2005/2006

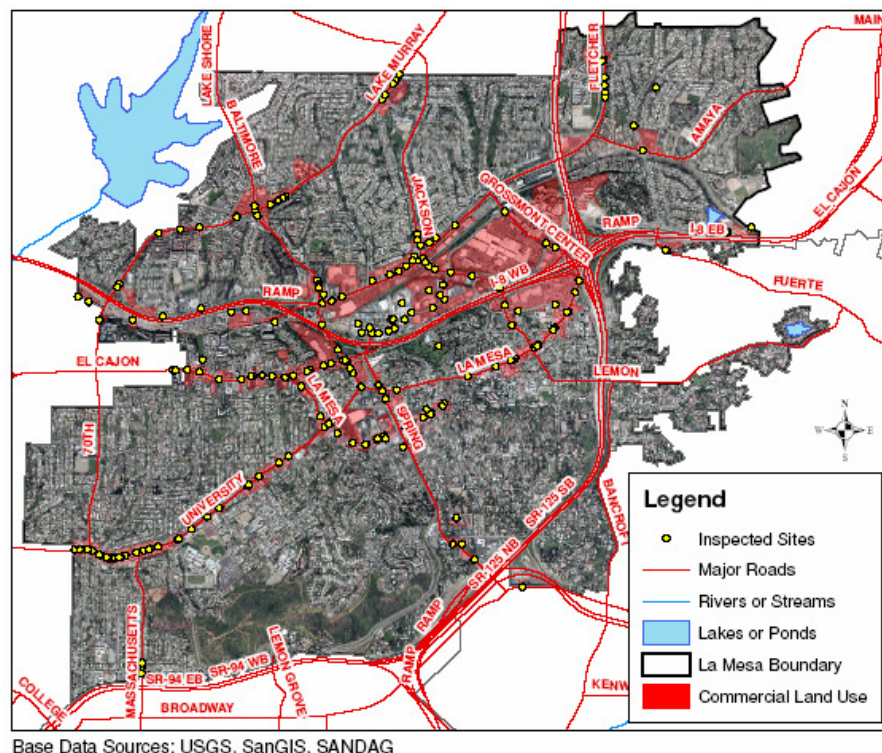
#	FACILITY	INSPECTION	CURRENT PRIORITY	CURRENT SIC	RECOMMENDED CORRECTIVE ACTIONS
6	Schaefer Ambulance, Inc., 7285 University Ave	6/28/2006	High Industrial	4119	<ul style="list-style-type: none"> Place drums/liquid material in secondary containment. Ensure all oil stains are treated/addressed. Assess source of Total Suspended Solids (TSS)/conductivity and high pH.
7	Walter H. Barber	1/9/2006	Low Industrial	1629	<ul style="list-style-type: none"> Cover and contain rusty metal items stored outdoors. Consider storing items in covered bins, or raise off the ground on pallets are secure with tarps. Minimize or eliminate exposure as much as possible. Monitor the forklift and ensure it does not leak any fluids. Maintain as needed. Consider covering with a tarp. Wash vehicles at a commercial carwash. If vehicle area rinsed onsite, wash over pervious ground and ensure there is no discharge of wash water off the property. Sweep up entry way to yard periodically. Consider re-paving the area where asphalt is eroding.

4 COMMERCIAL

In the City of La Mesa, commercial facilities, especially auto repair shops and restaurants, have a high potential to contribute to storm water pollution. These sites may not be as large as some industrial sites, but they still maintain a somewhat significant pollutant potential if their sites are not managed properly. The City has taken an active role in developing programs designed to target these facilities with the purpose of reducing and potentially eliminating the amount of pollutants that leave their sites. The City's program focuses on targeted education, follow-up inspections, and complaint investigations. The City of La Mesa JURMP document addresses five main components including pollution prevention, source identification, BMP implementation, inspection of commercial sites and sources, and enforcement of commercial sites and sources.

Figure 4.1, below, depicts the commercial zones in the City, which are concentrated along main roads. The yellow dots show geocoded addresses of all high priority commercial facilities, 100 percent of which have been inspected during the life of the current Municipal Permit. Because the yellow dots are based on geocoding, the dots for businesses in the Grossmont Center Mall, located north of Interstate 8 and west of Grossmont Center Drive, are on the streets around the mall rather than on the buildings in the mall itself. The commercial area north of Interstate 8 and close to SR-125 is Grossmont Hospital, which is not a high priority commercial business and thus does not have a corresponding yellow dot.

Figure 4.1
La Mesa Commercial Facilities



PRIORITY COMMERCIAL SOURCES

The City is required to maintain an updated JURMP inventory of high priority commercial facilities. During this reporting year, one business was added to the inventory, and none were removed. The high priority commercial now contains 266 businesses (Table 4.1). The City's commercial inventory includes businesses that conduct high priority commercial activities as defined by the Municipal Permit. The inspection findings are entered into a comprehensive database shared with industrial facilities; the database is used both to record inspection findings and to manage the inventory.

POLLUTION PREVENTION

Section 4.1 of the City's JURMP outlines pollution prevention measures that commercial businesses must implement to protect against pollutants discharge at their sites. City inspectors generally focus on simple good housekeeping measures and proper material storage at all high commercial facilities. Additionally, the City emphasizes the importance of proper restaurant grease disposal since a grease blockage in the sewer line can cause or contribute to an SSO. Information regarding BMPs from Section 4.1 of the City's JURMP are spread to commercial businesses through facility inspections and educational materials. As with industrial facilities, business owners and/or managers are encouraged to share their storm water knowledge with employees through educational materials, training sessions, and good housekeeping instruction. Facility inspections are mainly designed to address potential pollution prevention methods; these efforts have heightened pollution prevention awareness at commercial businesses. The goal of facility inspections and management education is to significantly reduce and/or eliminate the amount of storm water pollution being discharged from these commercial facilities.

BMP REQUIREMENTS AND IMPLEMENTATION

As previously mentioned, Section 4.3 of the JURMP outlines activity-specific BMPs for commercial activities as well as general BMPs that must also be implemented. The inspection process, educational materials, and outreach events specifically designed for commercial businesses make it easier for business managers to select activity-specific BMPs and to ensure that BMPs are being implemented properly. All commercial businesses are required to implement the general BMPs listed in JURMP Appendix C.2. Additionally, the activity-specific BMPs listed in JURMP Appendix C.4 are required if applicable to the business activity. The City emphasizes the use of non-structural BMPs, such as good housekeeping techniques. The City recommends structural BMPs only when non-structural BMPs alone are not effective.

TRAINING, EDUCATION AND OUTREACH

Commercial facilities, especially restaurants, are more apt to have a high turnover rate of employees, which makes maintaining a high level of storm water knowledge at these businesses difficult. New employees may come to a business without even a cursory knowledge of storm water; for example, many may not know the difference between the sanitary sewer system and the storm water system, and they may not understand the consequences of disposing of waste improperly. This lack of knowledge is a potential threat

to storm water because such employees may be engaging in unacceptable storm water activities without being aware of it. The City recognizes this dilemma, and works to provide commercial businesses with educational materials and training opportunities tailored to their needs.

When an inspector visits a commercial site, the inspector immediately begins to engage the business manager/owner in a conversation about storm water. The inspector explains the storm water program goals and objectives, and then discusses BMP requirements and good housekeeping methods. The inspector ensures that the business manager/owner understands the activity-specific BMPs necessary for the facility. The inspector also provides the business manager/owner with any corrective actions both verbally and written via the inspection form or follow-up form. Educational materials such as the "Preventing Urban Runoff Pollution" brochure (Attachment 3.1), and the "Put Toxic Waste In Its Place" brochure (Attachment 3.4) and the San Diego Bay and San Diego River Watershed fact sheets (Attachments 3.2 and 3.3) may also be provided to the business owner at the time of inspection.

This reporting period, letters were mailed to 145 restaurants in La Mesa (Attachment 4.1). The letter invited restaurants to the Green Business Workshop and included a copy of "Preventing Urban Runoff Pollution" and an area specific watershed fact sheet. In addition, the letter reminded restaurant managers that it is necessary for them to implement certain BMPs, such as maintaining a clean grease bin area and not washing or hosing down the exterior of the building. The letter also reminded restaurant managers that the City Ordinance prohibits any discharge of non-storm water to the storm drain system. The April 17, 2006 workshop was a joint effort of the City of La Mesa and the San Diego County Green Business Program, which promotes environmentally-friendly business practices throughout San Diego County. It was the first such workshop offered in East County. The Green Business Program representative explained various green business concepts to the audience, noting that many of them are not only good for the environment but also can save money. Green Business Program materials were also distributed. The City's Environmental Specialist gave a presentation about the City's storm water program, information about both the San Diego Bay and the San Diego River watershed, and required BMPs for restaurant activities. Each attendee was provided with a copy of the "What's Cookin' Guide," an 18 page booklet including detailed BMPs that also encourages restaurant management to provide training for their employees. The booklet is included as Attachment 4.2.

This reporting period, the City continued to target automotive dealerships and mobile detailing services throughout La Mesa. On July 19, 2005, 31 dealerships were sent an educational letter (Attachment 4.3), the "Preventing Urban Runoff Pollution" brochure (Attachment 3.1), and the watershed fact sheets to remind them that City Storm Water Ordinance prohibits non-storm water discharges. The City received two follow up calls for more information about the letter and clarification regarding acceptable storm water activities.

As mentioned in Section 3 and in more detail later in this report, the City also periodically publishes educational articles about storm water in the City newsletter, the *La Mesa Focus*. Copies of this newsletter are circulated among businesses in La Mesa and can be found as Attachments 3.5, 3.6, 3.7, and 3.8. The City also distributed 2006 calendars to commercial businesses. The calendars, which provided storm water pollution prevention tips, are discussed in more detail in Section 5 of this report.

This reporting period, two commercial businesses in La Mesa, Target and Dixieline Lumber, collaborated with the City to distribute IPM cards (Attachment 4.4). The cards were made available at the sales counter at Dixieline Lumber and at the garden center sales counter at Target. Active participation by commercial businesses in storm water pollution prevention is an important advance in storm water pollution prevention and the City plans to continue these efforts.

INSPECTIONS

The current Municipal Permit states that all high commercial facilities must be inspected once during the life of the permit. The City has completed all routine inspections during previous reporting periods, and continues to remain active in ensuring commercial compliance by conducting follow-up inspections and responding to complaints about commercial facilities.

During this reporting period, the City conducted one follow-up inspection at Trattoria Tiramisu. The facility has been found to be in violation of the City's Storm Water Ordinances in the past for failing to implement proper BMPs. An NOV had been issued to the facility on June 30, 2005, and upon re-inspection on August 16, 2005, the major violations had been corrected, and no further action was necessary. Details regarding the inspection are included in Table 4.2. The current high priority commercial inventory includes a total of 266 commercial facilities (Table 4.1).

The City received a number of complaints regarding commercial businesses in the City, and visited a total of 28 commercial sites to investigate these complaints. Many businesses were participating in illegal washing activities or improperly implementing other required BMPs. City staff investigated all commercial complaints, and in some cases speaking with the violator, providing a verbal warning, and providing educational material resolved the problem and potentially prevented any future problems. In most cases where an individual at a commercial business was seen actively violating the City's Storm Water Ordinance, an NOV was issued. In almost all instances, educational material such as the "Preventing Urban Runoff" brochure was provided to the business. All complaints made to the City's storm water hotline, including all commercial complaints, are discussed in Section 8 of this report.

The City has taken a proactive approach to confronting the issue of pollutants entering the storm drain system due to the activities of mobile detailers in the City. During the 2004/2005 reporting period, the City developed two affidavits for mobile business owners to

sign, acknowledging that they understand and will implement proper BMPs while conducting business and the consequences of not doing so (Attachments 4.5). During this reporting period, the City was able to utilize these affidavits for mobile detailers applying for a business license. The affidavits are signed to acknowledge that proper disposal is necessary for any water generated by mobile business activities such as mobile car detailing and power washing. Additionally, the business owner agrees to implement required BMPs as presented in Appendix C of the City's JURMP and failure to do so will result in further action and possible legal action by the City. Currently, the business license department instructs the business to contact the City's Environmental Specialist to schedule a meeting to review the City's requirements, review the Mobile Business Fact Sheet in Appendix C of the City's JURMP, and review pollutants of concern. Additionally, the business owner is provided with the San Diego Bay and San Diego River watershed fact sheets. Five mobile businesses have signed the affidavits, including four mobile auto detailers and one power washer (Table 4.3). A meeting with the City's Environmental Specialist and the submittal of these affidavits will be required of all new mobile businesses before their business licenses can be issued. If a mobile business from another city is found to be discharging water into the storm drain system in the City of La Mesa, they are issued both a violation for not having a City business license and an NOV for illegal storm water discharge. In addition, the City's Environmental Specialist has made it a practice to contact the business' city of origin (if not La Mesa) to inform their storm water department of the violation. The City has taken a very proactive role in cooperating with other cities in the region to prevent storm water pollution. One potential mobile detailing business called the City's storm water hotline to inquire about mobile detailing requirements.

COMPLIANCE & ENFORCEMENT

As previously mentioned, the commercial business manager/owner is notified of necessary corrective actions based on storm water inspection findings. In many cases, BMP deficiencies are corrected and it is not necessary for the City to take further action. In the cases that a business does not cooperate with necessary corrective actions after being notified to do so, the City sends corrective action letters, NTCs, NOVs, and can fine the business or pursue further legal action. The City has been successful with this approach to ensure compliance of the City's commercial businesses with the City's Storm Water Ordinance.

During this reporting period, Crossroads Mall in La Mesa experienced a blockage in one of its sewer lines, resulting in a sewage discharge from its property onto its parking lot and into the storm water conveyance system. The City's Environmental Specialist responded immediately. Upon arrival, the City ensured sandbags were placed around the storm drain inlet in the mall parking lot to prevent any additional wastewater from entering the inlet. The City also instructed other neighboring businesses to stop practices that would generate additional wastewater. Shortly thereafter, a plumber arrived and cleared the blockage, which stopped the overflow. The property management company then proceeded to cleanup what was left of the spill. The following day, the City's Environmental Specialist returned to inspect the cleanup efforts. While most of the material had been cleaned, some

residuals remained. The City then directed the realty company to hire an outside contractor to clean the site and back flush the storm water conveyance system, recapturing the water. The City's Environmental Specialist was on site to ensure that the contractor cleaned and back flushed the site properly and effectively. It was estimated that less than 100 gallons of wastewater may have been discharged to the MS4. An NOV regarding this overflow was issued to the property management company.

If a business is found to be out of compliance with the City's Storm Water Ordinance during an inspection, they are issued corrective actions and recommended for a follow-up inspection. If the business remains out of compliance upon re-inspection, an NTC or an NOV is issued depending on the significance of the problem. If a business refuses to cooperate with the enforcement process, it is reported to the RWQCB. Any sites found to pose significant threats to human health or the environment are reported to the RWQCB immediately. Section 4.5 of the City's JURMP outlines the enforcement goals of the City.

- During the 2005/2006 reporting period, the City issued 15 NOVs to non-compliant commercial businesses. Many of these businesses were illegally discharging wastewater from washing activities such as vehicle washing and hosing down outdoor areas. Each of these 15 cases were complaint investigations, and in each case the observed problem was resolved and no further additional action was needed. More detail about the specific incidents is present in Section 8 of this Annual Report, which describes each complaint reported and the City's response to it.

IMPLEMENTATION PLANS FOR 2006/2007

The City will continue to inspect high commercial businesses on an as needed basis and promptly investigate complaints made about commercial facilities. The commercial inventory and inspections database will continue to be updated as needed. The City will also work to distribute the City of La Mesa "Storm Water Pollution and Over-Irrigation" fact sheet (Attachment 3.11) to businesses and residents in the City. The City's Environmental Specialist will continue meeting with the business license officer each week to assign appropriate SIC codes and JURMP prioritizations.

JURMP UPDATE

The City's high priority commercial inventory (Table 4.1) has been updated to reflect changes based on inspections conducted during the reporting period. As noted in the previous section, Mike's Custom T-Shirts was moved from the Low Priority Industrial facility inventory to the High Priority Commercial facility inventory. Findings from those inspections are presented in Table 4.3.

Moved or duplicated businesses will continue to be removed from the JURMP listing after it is conclusively determined that they no longer exist within the City of La Mesa. The City's database will also be updated with information relating to new businesses that are discovered, and inspections of these new facilities will be conducted to help confirm the

appropriateness of SIC codes and priority classifications, as well as to gauge storm water compliance.

Table 4.1
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
1	24 Hour Fitness, Inc. #101	7450 University Avenue, La Mesa, CA 91941	7997	San Diego Bay	University
2	24 Hour Fitness, Inc. 178	5601 Grossmont Drive, La Mesa, CA 91942	7997	San Diego River	Alvarado
3	A & W Restaurants	5500 Grossmont Center Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
4	A A A Auto Repair & Transmission	7025 University Ave, La Mesa, CA 91941	7539	San Diego Bay	University
5	A-1 Hire, Ltd.	7190 University Ave., La Mesa, CA 91941	7359	San Diego Bay	University
6	Al & EDS Autosound	5208 Jackson Dr. 117, La Mesa, CA 91942	7549	San Diego River	Alvarado
7	Aliberto's Mexican Food	7819 El Cajon Blvd., La Mesa, CA 91941	5812	San Diego Bay	University
8	All Italiana	8356 Allison Ave, La Mesa, CA 91941	5812	San Diego Bay	University
9	All Lines Dealer Aids Inc.	7373 Mohawk St., La Mesa, CA 91942	7549	San Diego River	Alvarado
10	All Pro Pool Services	7935 El Cajon Boulevard, La Mesa, CA 91942	5999	San Diego River	Alvarado
11	Aloha City Pest Control, Inc.	7317 El Cajon Boulevard 203, La Mesa, CA 91942	7342	San Diego River	Alvarado
12	Anthony's Fish Grotto La Mesa	9530 Murray Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
13	Antica Trattoria Inc.	5654 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
14	Aqua Clean Hand Car Wash & Express Lube	7959 Parkway Dr, La Mesa, CA 91942	7542	San Diego River	Alvarado
15	Arby's 5822	5341 Jackson Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
16	Arco Sunshine Food Store #9543	7594 University Ave, La Mesa, CA 91941	5541	San Diego Bay	University

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
17	Arco Sunshine Food Store #9596	7974 University Ave, La Mesa, CA 91941	5541	San Diego Bay	University
18	Arigato Japanese Restaurant	5575 Baltimore Dr # 110, La Mesa, CA 91942	5812	San Diego River	Alvarado
19	ASWAN AFRICAN CAFÉ	7404 University Ave, La Mesa, CA 91942	5812	San Diego Bay	University
20	Auto Center	8203 University Ave, La Mesa, CA 91941	7539	San Diego Bay	University
21	Auto Finance Group	7474 University Ave., La Mesa, CA 91941	5521	San Diego Bay	University
22	Auto Repair Specialists	8120 Center St, La Mesa, CA 91942	7539	San Diego River	Alvarado
23	Auto World	4949 Baltimore Drive, La Mesa, CA 91942	5521	San Diego River	Alvarado
24	Autozone 2809	7791 El Cajon Boulevard, La Mesa, CA 91942	5531	San Diego River	University
25	B A S Starting Systems, Inc.	8186 Commercial St, La Mesa, CA 91942	7539	San Diego River	Alvarado
26	B J's Pizza & Grill	5500 Grossmont Ctr Dr #M1, La Mesa, CA 91942	5812	San Diego River	Alvarado
27	Baker's Square #474	5270 Baltimore Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
28	Baldwin Auto Sales	8174 Center St., La Mesa, CA 91942	5521	San Diego River	Alvarado
29	Baltimore Texaco	5261 Baltimore Drive, La Mesa, CA 91942	5541	San Diego River	Alvarado
30	Bancroft Motors	8760 Campo Rd., La Mesa, CA 91941	5521	San Diego Bay	Spring Valley
31	Baskin-Robbins 31 Flavors	8807 La Mesa Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
32	Beck's Repair Shop	8838 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
33	Best-Top Auto Service	7633 El Cajon Blvd #110-A, La Mesa, CA 91941	7538	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
34	Big O Tires	7589-A El Cajon Blvd, La Mesa, CA 91941	7534	San Diego River	Alvarado
35	Bill's Lock and Key	7368 El Cajon Boulevard, La Mesa, CA 91942	7699	San Diego River	Alvarado
36	Bob Bowen's Auto Service	7191 Alvarado Rd, La Mesa, CA 91941	7538	San Diego River	Alvarado
37	Bob Stahl Chevrolet	7601 Alvarado Road, La Mesa, CA 91942	5511	San Diego River	Alvarado
38	Boll Weevil Systems Inc	9104 Fletcher Pkwy, La Mesa, CA 91942	5812	San Diego River	Alvarado
39	Bond's Automotive	8418 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
40	Brigantine Restaurant	9350 Fuerte Drive, La Mesa, CA 91941	5812	San Diego River	Alvarado
41	Broding's Battery Warehouse	8188 Commercial St., La Mesa, CA 91942	5531	San Diego River	Alvarado
42	Broyles Construction, Inc.	8101 Commercial St, La Mesa, CA 91942	0782	San Diego River	Alvarado
43	Bruce's Auto Repair	7633 El Cajon Blvd., La Mesa, CA 91941	7538	San Diego River	Alvarado
44	Budget R V Repair & Mobile Service	7860 El Cajon Blvd, La Mesa, CA 91942	7539	San Diego River	Alvarado
45	Bulls Eye Custom	8186 Center Street, Suite H, La Mesa, CA 91942	7336	San Diego River	Alvarado
46	C & D Auto Care	7163 University Avenue, La Mesa, CA 91941	7538	San Diego Bay	University
47	C & D Towing Specialists	8332 Case St., La Mesa, CA 91942	7549	San Diego River	Alvarado
48	Caliber Collision Centers	8310 Center Drive, La Mesa, CA 91942	7532	San Diego River	Alvarado
49	Callari's Italian Deli & Bakery	7670 El Cajon Blvd, La Mesa, CA 91941	5812	San Diego River	Alvarado
50	Cappuccino House	7334 University Avenue, La Mesa, CA 91941	5812	San Diego Bay	University
51	Car Mart	7640 El Cajon Boulevard, La Mesa, CA 91942	5211	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
52	Carl Burger Dodge World	8355 Hercules Street, La Mesa, CA 91942	5511	San Diego River	Alvarado
53	Carl Burgers Jeep Eagle World	8333 Hercules St., La Mesa, CA 91942	5511	San Diego River	Alvarado
54	Carl's Jr. #284	8110 Parkway Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
55	Carruso's Coffee Corner	8201 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
56	Center City Shell #2	3810 Massachusetts Ave, La Mesa, CA 91941	5541	San Diego Bay	Lemon Grove
57	Charcoal House	9566 Murray Dr., La Mesa, CA 91942	5812	San Diego River	Alvarado
58	Chevy's Fresh Mex #513	5500 Grossmont Center Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
59	Chili's Bar & Grill #454	8285 Fletcher Pkwy, La Mesa, CA 91942	5812	San Diego River	Alvarado
60	Chipotle Mexican Grill	8005 Fletcher Parkway, La Mesa, CA 91942	5812	San Diego River	Alvarado
61	Chopsticks Inn Restaurant	8687 La Mesa Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
62	Christy's Donuts	7953 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
63	Chuck E. Cheese's	5500 Grossmont Center Dr J 34, La Mesa, CA 91941	5812	San Diego River	Alvarado
64	CI Customs	7147 University, Suite A, La Mesa, CA 91941	7549	San Diego Bay	University
65	Ciao Bella	5263-65 Baltimore Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
66	Circle K Stores, Inc. # 8675	8899 La Mesa Blvd, La Mesa, CA 91942	5541	San Diego River	Alvarado
67	Claim Jumper Restaurant La Mesa	5500 Grossmont Ctr. Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
68	Classy Cards, Etc.	8080 La Mesa Blvd 105, La Mesa, CA 91941	7374	San Diego Bay	University
69	Coco's #132	5550 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
70	Coffee Indulgences	8900 Grossmont Blvd #7, La Mesa, CA 91941	5812	San Diego River	Alvarado
71	Cold Stone Creamery	5500 Grossmont Center Dr. #F1, La Mesa, CA 91942	5812	San Diego River	Alvarado
72	Commercial Electric Appliance Service	8110 Commercial St., La Mesa, CA 91942	7699	San Diego River	Alvarado
73	Constant Cravings Coffeehouse	5575 Baltimore Dr #108, La Mesa, CA 91942	5812	San Diego River	Alvarado
74	Continental Catering	8232 Parkway Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
75	Cosmoprof Professional Salon Center	5208 Jackson Dr #115, La Mesa, CA 91941	5999	San Diego River	Alvarado
76	D'amato's Pizza	8807 La Mesa Blvd., La Mesa, CA 91941	5812	San Diego River	Alvarado
77	Dan's Automotive	7501 University Ave., La Mesa, CA 91941	7538	San Diego Bay	University
78	Dante's Pizza	5500 Grossmont Center Dr # 135, La Mesa, CA 91942	5812	San Diego River	Alvarado
79	De Albas Spring St.	4867 Spring St., La Mesa, CA 91941	7539	San Diego Bay	University
80	Dennis Sherman Foreign Car Service	8620 La Mesa Boulevard, La Mesa, CA 91942	7538	San Diego River	Alvarado
81	Denny's Restaurant #6488	4235 Spring St, La Mesa, CA 91941	5812	San Diego Bay	Spring Valley
82	Denny's, Inc. #1743	6970 Alvarado Rd, La Mesa, CA 92120	5812	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
83	Detailing Concepts by Laura	6152 Horton Drive, La Mesa, CA 91942	7542	NA - Mobile Business	NA - Mobile Business
84	Deters Inc.	8180 Commercial Street, La Mesa, CA 91942	7359	San Diego River	Alvarado
85	Dieter Fischer's Star Car Service	8699 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
86	Domino's Pizza	7960 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
87	Don Keating Service	8381 La Mesa Boulevard, La Mesa, CA 91941	7538	San Diego Bay	University
88	Don Keating Used Cars	8381 La Mesa Boulevard, La Mesa, CA 91941	5521	San Diego Bay	University
89	Don Primos Bolivian Restaurant	9570 Murray Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
90	Doug Tucker Texaco Station	5151 70th St, La Mesa, CA 91941	5541	San Diego River	Alvarado
91	Dragon House	6062 Lake Murray Blvd #201, La Mesa, CA 91942	5812	San Diego River	Alvarado
92	Drew Ford / Drew Hyundai	8970 La Mesa Blvd., La Mesa, CA 91942	5511	San Diego River	Alvarado
93	Eastridge Veterinary Clinic	7750 University Avenue, Suite A, La Mesa, CA 91941	0742	San Diego Bay	University
94	El Cerrito Veterinary Hospital	6911 University Avenue, La Mesa, CA 91941	0742	San Diego Bay	University
95	El Compadre Taco Shop	7327 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
96	El Torito	5024 Baltimore Dr, La Mesa, CA 91941	5812	San Diego River	Alvarado
97	Elite Auto Collision Repair Center	4949 Baltimore Drive, La Mesa, CA 91941	7532	San Diego River	Alvarado
98	Engraving Pros	5500 Grossmont Center Drive, La Mesa, CA 91942	5999	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
99	Equilon Enterprises, LLC (Texaco - Car Wash)	9090 Dallas St, La Mesa, CA 91942	5541	San Diego River	Alvarado
100	Euclid Motors	4969 Baltimore Dr., La Mesa, CA 91942	5521	San Diego River	Alvarado
101	European Car Service	8855 La Mesa Blvd, La Mesa, CA 91942	7539	San Diego River	Alvarado
102	Express Auto Service	7633 El Cajon Blvd., La Mesa, CA 91941	7538	San Diego River	Alvarado
103	Family Chef Restaurant	6155 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
104	Filiberto's Mexican Food	7102 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
105	Firestone Tire & Service Centers	8784 Grossmont Blvd, La Mesa, CA 91942	7534	San Diego River	Alvarado
106	Fletcher Hills Pet Clinic	9160 Fletcher Hills Parkway, La Mesa, CA 91942	0742	San Diego River	Alvarado
107	Fuddrucker's	5500 Grossmont Center Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
108	German Auto Repair	4654 Nebo Dr, La Mesa, CA 91941	7539	San Diego Bay	University
109	Giant Pizza King #11	8302 Parkway Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
110	Gold Star Taco Shop	5416 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
111	Golden State Auto of La Mesa, Inc.	7224 University Avenue, La Mesa, CA 91941	5521	San Diego Bay	University
112	Golden Wok	8342 Parkway Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
113	Greg's Sharpening and Cutlery	4691 Date Ave, La Mesa, CA 91941	7699	San Diego Bay	University
114	Halsey Design Group, Inc.	9340 Fuerte Dr., Suite 303, La Mesa, CA 91942	0781	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
115	Harloff Automotive	7445 University Avenue, La Mesa, CA 91941	5531, 7538	San Diego Bay	University
116	Harold's Automotive	8202 Parkway Dr, La Mesa, CA 91941	7538	San Diego River	Alvarado
117	Hearth House	5505 Jackson Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
118	Helix Pet Hospital	4223 Palm Ave., La Mesa, CA 91941	0742	San Diego Bay	Spring Valley
119	Hoxsey Corporation/Shell Station	5302 Lake Murray Blvd., La Mesa, CA 91942	5541	San Diego River	Alvarado
120	J Ks Greek Cafe	7749 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
121	J.B. Auto & Truck Sales	4999 Baltimore Drive, La Mesa, CA 91942	5521	San Diego River	Alvarado
122	Jack In The Box, Jackson	5141 Jackson Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
123	Jack In The Box, Lake Murray	6140 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
124	Jack In The Box, University	6987 University Ave, La Mesa, CA 91942	5812	San Diego Bay	University
125	Jack Orr Auto Body, Inc.	7253 University Ave, La Mesa, CA 91941	7539	San Diego Bay	University
126	Jamar Restaurant	7777 University Avenue, La Mesa, CA 91941	5812	San Diego Bay	University
127	Jamba Juice #143	5500 Grossmont Ctr Dr., La Mesa, CA 91942	5812	San Diego River	Alvarado
128	JC Brooks Construction	8383 Cente Dr. #A, La Mesa, CA 91942	7349	San Diego River	Alvarado
129	Jolt 'N Joes	8076 La Mesa Boulevard, La Mesa, CA 91941	5812	San Diego Bay	University
130	Judy Eppler's Chevron and Food Mart	8200 University Ave, La Mesa, CA 91941	5541	San Diego Bay	University

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
131	Kentucky Fried Chicken	5358 Jackson Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
132	Knott's Pest Control, Inc.	5141 Guild St., La Mesa, CA 91942	7342	San Diego River	Alvarado
133	Kragen CSK Auto, Inc. #789	5350 Jackson Dr., La Mesa, CA 91942	5531	San Diego River	Alvarado
134	Kwong's Wok	7918 El Cajon Blvd, Ste P, La Mesa, CA 91942	5812	San Diego River	Alvarado
135	La Fogata Mexican Restaurant	7303 El Cajon Blvd, La Mesa, CA 91941	5812	San Diego River	Alvarado
136	La Mesa Auto Care	8692 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
137	La Mesa Car Co.	7658 University Ave., La Mesa, CA 91941	5511	San Diego Bay	University
138	La Mesa Car Wash	5322 Jackson Dr, La Mesa, CA 91942	5541	San Diego River	Alvarado
139	La Mesa Chevron	5600 Baltimore Dr, La Mesa, CA 91942	5541	San Diego River	Alvarado
140	La Mesa Lumber	8255 University Ave, La Mesa, CA 91941	5211	San Diego Bay	University
141	La Mesa Motor Clinic, Inc.	5120 Guild St, La Mesa, CA 91942	7539	San Diego River	Alvarado
142	La Mesa Ocean Grille	5465 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
143	La Mesa Paint & Body	8170 Parkway Dr, La Mesa, CA 91942	7539	San Diego River	Alvarado
144	La Mesa Racquetball, Inc.	4330 Palm Ave., La Mesa, CA 91941	7997	San Diego Bay	Spring Valley
145	La Mesa Smog	3824 Massachusetts Ave., Suite A, La Mesa, CA 91942	7549	San Diego Bay	Lemon Grove
146	La Mesa Submarina	5454 Grossmont Center Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
147	La Mesa Texaco/Chula Vista Entertainment	4925 Spring St, La Mesa, CA 91941	5541	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
148	La Mesita Mexican Food	7012 University Avenue, La Mesa, CA 91941	5812	San Diego Bay	University
149	La Salsa Restaurants	4990 Baltimore Dr, La Mesa, CA 91941	5812	San Diego River	Alvarado
150	La Torta Mexican Café/Deli	8350 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
151	Lake Murray Blvd #1 Exxon	6085 Lake Murray Blvd, La Mesa, CA 91942	5541	San Diego River	Alvarado
152	Lake Murray Village Veterinarian	5644 Lake Murray Blvd., La Mesa, CA 91942	0742	San Diego River	Alvarado
153	Lakeside Motors	8090 University Avenue, La Mesa, CA 91941	5521	San Diego Bay	University
154	Los Pinos Taco Shop	5660 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
155	Lotus Pond Restaurant	8260 Parkway Dr, La Mesa, CA 91941	5812	San Diego River	Alvarado
156	Manhattan Pizza	6195-D Lake Murray Blvd., La Mesa, CA 91942	5812	San Diego River	Alvarado
157	Marie Callender's #74	6950 Alvarado Rd, La Mesa, CA 91941	5812	San Diego River	Alvarado
158	Marieta's	8949 La Mesa Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
159	Mario's De La Mesa	8425 La Mesa Blvd., La Mesa, CA 91941	5812	San Diego River	Alvarado
160	McDonald's	8045 Fletcher Pkwy, La Mesa, CA 91942	5812	San Diego River	Alvarado
161	Metro Vacuum & Cleaning Supply	7938 La Mesa Blvd, La Mesa, CA 91941	5999	San Diego Bay	University
162	Midas Mufflers	7207 University Ave, La Mesa, CA 91941	7539	San Diego Bay	University
163	Mike's Custom T-Shirts	7141 University Ave, La Mesa, CA 91941	5699	San Diego Bay	University
164	Motel 6 #1319	7621 Alvarado Road, La Mesa, CA 91942	7011	San Diego River	Alvarado
165	Nacho's Taco Shop	7589 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
166	Natasha Deli	6126 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
167	Neil's Auto Center	7633 El Cajon Blvd., La Mesa, CA 91941	7539	San Diego River	Alvarado
168	New York Giant Pizza	9083 Dallas St, La Mesa, CA 91942	5812	San Diego River	Alvarado
169	Nonnos Pizza	5314 Baltimore Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
170	Office Depot #846	8481 Fletcher Parkway, La Mesa, CA 91942	5999	San Diego River	Alvarado
171	Old Country Deli	7097 University Avenue, La Mesa, CA 91941	5812	San Diego Bay	University
172	Olive Garden G M R I, Inc. #1301	5500 Grossmont Center Dr J 2, La Mesa, CA 91942	5812	San Diego River	Alvarado
173	Oram's Auto Repair & Electric	7801 El Cajon Blvd, La Mesa, CA 91942	7539	San Diego River	Alvarado
174	Outback Steakhouse	5628 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
175	P S I Prestige Stations, Inc. # 9578	9600 Murray Dr, La Mesa, CA 91942	5541	San Diego River	Alvarado
176	P.G. King	5575 Baltimore Dr #105-A, La Mesa, CA 91942	5812	San Diego River	Alvarado
177	Pacific Repair Services Int'l, Inc.	5345 Timken St., Suite E, La Mesa, CA 91942	7699	San Diego River	Alvarado
178	Panda Express #226	8011 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
179	Panda Express #606	5500 Grossmont Center Drive E-1, La Mesa, CA 91942	5812	San Diego River	Alvarado
180	Panda Land	9200 Fletcher Pky, La Mesa, CA 91942	5812	San Diego River	Alvarado
181	Parkway Pet Hospital	8200 Parkway Drive, La Mesa, CA 91942	0742	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
182	Parkway Upholstery Co.	8333 Case Street, La Mesa, CA 91942	7641	San Diego River	Alvarado
183	Peanuts Auto Repair	5387 Lake Murray Blvd, La Mesa, CA 91942	7539	San Diego River	Alvarado
184	Performance Automotive	7227 University Avenue, La Mesa, CA 91941	7538	San Diego Bay	University
185	Performance Choppers	4999 Baltimore Dr., Suite 1, La Mesa, CA 91942	5571	San Diego River	Alvarado
186	Performance Motoring	8620 La Mesa Blvd., La Mesa, CA 91941	5521	San Diego River	Alvarado
187	Pet Emergency Clinic East County	5232 Jackson Dr., Suite 105, La Mesa, CA 91942	0742	San Diego River	Alvarado
188	Phillip's Maytag	8495 La Mesa Boulevard, La Mesa, CA 91942	5722	San Diego River	Alvarado
189	Pick Up Stix La Mesa	8025 Fletcher Pkwy, La Mesa, CA 91942	5812	San Diego River	Alvarado
190	Pietros Cucina Italiana	8378 Parkway Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
191	Pizza Hut	8011 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
192	Plaza Deli	7777 Alvarado Rd 400 A, La Mesa, CA 91942	5812	San Diego River	Alvarado
193	Por Favor Restaurant	8302 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
194	Prestige Stations, Inc. # 695, AM PM Mini Mart	3775 Massachusetts Ave, La Mesa, CA 91941	5541	San Diego Bay	Lemon Grove
195	Prestigious Automotive	5301 Lake Murray Blvd, La Mesa, CA 91942	5521	San Diego River	Alvarado
196	Public Auto Wholesale	8260 Commercial Street, La Mesa, CA 91942	5521	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
197	Pykles Plumbing & True Value Hardware	6127 Lake Murray Blvd., La Mesa, CA 91942	5251	San Diego River	Alvarado
198	Rancho Mobil #2	5450 Jackson Dr, La Mesa, CA 91942	5541	San Diego River	Alvarado
199	Red Lobster G M R I, Inc. #504	8703 Murray Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
200	Red Oak Steakhouse #804	5130 Baltimore Drive, La Mesa, CA 91941	5812	San Diego River	Alvarado
201	Road Pros Tire & Lube	7151 University Ave., La Mesa, CA 91941	5531, 7534	San Diego Bay	University
202	Rosaritos Mexican Food #3	7941 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
203	Round Table Pizza	8032 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
204	Round Table Pizza Restaurant	5999 Severin Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
205	Rubio's Restaurants. Inc.	5500 Grossmont Center Dr, # D 22, La Mesa, CA 91942	5812	San Diego River	Alvarado
206	Russian Palace	6130 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
207	San Diego's Finest Donuts	6062 Lake Murray Blvd, La Mesa, CA 91942	5812	San Diego River	Alvarado
208	Sandwiches N Stuff	8363 Center Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
209	Sanfilippo's Pizza	8141 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
210	Schlotzsky's	5500 Grossmont Center Dr 219, La Mesa, CA 91942	5812	San Diego River	Alvarado
211	Select Cars, Inc.	7699 El Cajon Blvd., La Mesa, CA 91942	5521	San Diego Bay	University
212	Sergio's Café	7380 Parkway Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
213	Severin Mobil	5900 Severin Dr, La Mesa, CA 91942	5541	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
214	Shirley's Kitchen	7868 El Cajon Blvd, La Mesa, CA 91941	5812	San Diego River	Alvarado
215	Shirley's Kitchen, University	7118 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
216	Shizuoka Japanese Restaurant	9118 Fletcher Pky, La Mesa, CA 91942	5812	San Diego River	Alvarado
217	Sid's Auto Body, Inc.	7473 El Cajon Blvd., La Mesa, CA 91941	7532	San Diego River	Alvarado
218	Smog Pros	8303 Parkway Drive, La Mesa, CA 91942	5541	San Diego River	Alvarado
219	Smog R Us / California Inspection Station	9089 Dallas St., La Mesa, CA 91942	7549	San Diego River	Alvarado
220	Smoke & Save	9138 Fletcher Pkwy, La Mesa, CA 91942	5993	San Diego River	Alvarado
221	Souplantation/Garden Fresh	9158 Fletcher Pky #3, La Mesa, CA 91942	5812	San Diego River	Alvarado
222	Southern California Discount Tire	8867 Grossmont Blvd., La Mesa, CA 91942	7534	San Diego River	Alvarado
223	Sparky's Transmissions	8861 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
224	Srltn Inc. dba Bomar Business	8141 Center St., La Mesa, CA 91942	7629	San Diego Bay	University
225	Sterling Motor Escort	7589 El Cajon Blvd., Suite D, La Mesa, CA 91942	5571	San Diego River	Alvarado
226	Street Smart Vehicle Protection/Premium	7633 El Cajon Blvd., La Mesa, CA 91942	7549	San Diego River	Alvarado
227	Submarina - La Mesa	5454 Grossmont Ctr. Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
228	Subway Sandwiches	8142 La Mesa Blvd., La Mesa, CA 91941	5812	San Diego Bay	University
229	Subway Sandwiches, Lake Murray	5307 Lake Murray Blvd A, La Mesa, CA 91942	5812	San Diego River	Alvarado
230	Sun Valley Golf Course	5080 Memorial Drive, La Mesa, CA 91942	7992	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
231	Sunny Donuts	4199 Spring St, La Mesa, CA 91941	5812	San Diego Bay	Spring Valley
232	Sunny Garden Cuisine Of China	5500 Grossmont Center Dr, La Mesa, CA 91941	5812	San Diego River	Alvarado
233	Super China Buffet	7984 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
234	Sushi Fun Teriyaki Express	5500 Grossmont Center Dr #303, La Mesa, CA 91942	5812	San Diego River	Alvarado
235	Tamarind Thai Restaurant	7970 University Avenue, La Mesa, CA 91941	5812	San Diego Bay	University
236	The Baltimore Café	5620 Baltimore Dr., La Mesa, CA 91941	5812	San Diego River	Alvarado
237	The Boxing Club (A&C Real Box, Inc.)	5290 Baltimore Dr., La Mesa, CA 91942	7999	San Diego River	Alvarado
238	The Car Shop	4999 Baltimore Dr, La Mesa, CA 91941	7532	San Diego River	Alvarado
239	The Charcoal House	9566 Murray Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
240	The Chickenest 95, Inc.	7200 Parkway Dr #111, La Mesa, CA 91942	5812	San Diego River	Alvarado
241	The Dashboard Store/Expert Window Tinting	7147 University Ave., La Mesa, CA 91941	5531	San Diego Bay	University
242	The Godfather II Sorrento Italian Restaurant	8273 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
243	The Greek Gyros II	5500 Grossmont Ctr. Drive, La Mesa, CA 91942	5812	San Diego River	Alvarado
244	The Pet Hospital of La Mesa	5336 Jackson Dr., La Mesa, CA 91942	0742	San Diego River	Alvarado
245	The Rush Group	7633 El Cajon Blvd, Suite 210 B, La Mesa, CA 91941	5531	San Diego River	Alvarado
246	The Yogurt Mill	8158 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
247	Thrifty Transmission	7633 El Cajon Blvd., La Mesa, CA 91941	7537	San Diego River	Alvarado
248	Top Flite Darts	6942 University Ave, La Mesa, CA 91941	5941	San Diego Bay	University
249	Town & Country T.V.	7115 University Ave., La Mesa, CA 91941	7699	San Diego Bay	University
250	Trattoria Tiramisu	8273 La Mesa Blvd., La Mesa, CA 91941	5812	San Diego Bay	University
251	Trolley Stop Deli	8150 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
252	Trophy's	5500 Grossmont Ctr Dr, La Mesa, CA 91942	5812	San Diego River	Alvarado
253	Tune Craft, Inc.	8802 La Mesa Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
254	University Animal Clinic	7134 University Ave., La Mesa, CA 91941	0742	San Diego Bay	University
255	Valvoline Instant Oil Change	7981 El Cajon Blvd, La Mesa, CA 91941	7539	San Diego River	Alvarado
256	VCA Grossmont Animal Hospital	8274 Parkway Dr., La Mesa, CA 91942	0742	San Diego River	Alvarado
257	Village Garden Restaurant & Bakery	8384 La Mesa Blvd, La Mesa, CA 91941	5812	San Diego Bay	University
258	Wally's II Diagnostic Auto Repair	7393 El Cajon Blvd, La Mesa, CA 91942	7539	San Diego River	Alvarado
259	West Coast Car Sales	6942 University Ave., Suite C, La Mesa, CA 91941	5511	San Diego Bay	University
260	Wienerschnitzel #58	6949 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
261	Williams Enterprises	7840 La Mesa Blvd., La Mesa, CA 91941	5561	San Diego Bay	University
262	Wollman, Rick Gallery & Framing, LLC	8808 La Mesa Blvd., La Mesa, CA 91941	5999	San Diego River	Alvarado
263	Wongs Golden Palace, Inc.	7126 University Ave, La Mesa, CA 91941	5812	San Diego Bay	University
264	Worldwide Auto Parts Inc.	9089 Dallas St., La Mesa, CA 91942	5531	San Diego River	Alvarado

Table 4.1 (Continued)
High Priority Commercial Facilities Inventory--Updated for Fiscal Year 2005/2006

#	BUSINESS NAME	STREET ADDRESS	SIC CODE	WATERSHED	DRAINAGE BASIN
265	Yogurt Express	6195 Lake Murray Blvd C, La Mesa, CA 91942	5812	San Diego River	Alvarado
266	Zodiak Café	9158 Fletcher Parkway #3, La Mesa, CA 91942	5812	San Diego River	Alvarado

Table 4.2
Commercial Inspection Conducted During 2005/2006*

#	FACILITY	INSPECTION	CURRENT PRIORITY	CURRENT SIC	RECOMMENDED CORRECTIVE ACTIONS
1	Trattoria Tiramisu 8273 La Mesa Blvd.	Second Follow-up Inspection 8/16/05	High Commercial	5812	<p>1 Complete the process of contacting the cooking oil rendering service and obtaining secondary containment/cover, storage, lockers.</p> <p>*Note that the business had made the previously required following corrective actions at the time of inspection:</p> <ul style="list-style-type: none"> • Ensure rinse water from pressure washing is collected or disposed in mop sink. • Wash maps in mop sink. Ensure no discharge of non-stormwater.

Note

*Does not include complaint investigation inspections, which are discussed in Section 8.

Table 4.3
Mobile Businesses Completing An Affidavit in 2005/2006

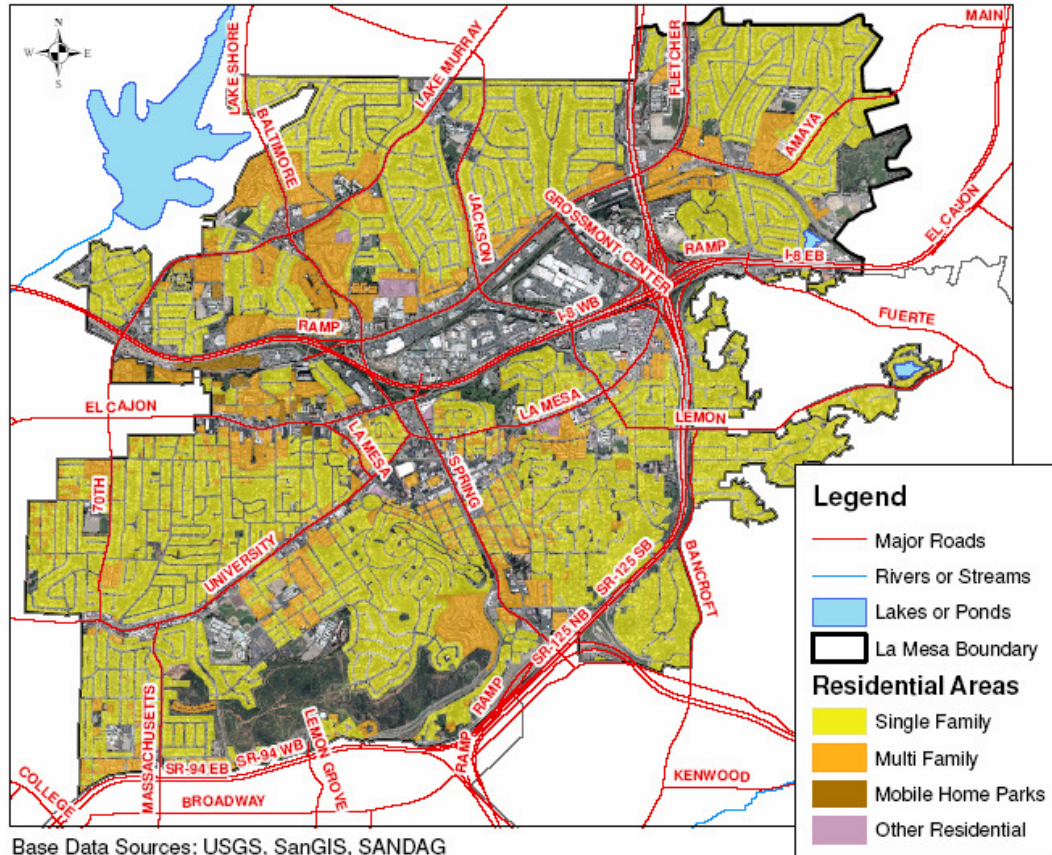
#	BUSINESS	AFFIDAVIT DATE	PRINCIPAL ACTIVITY
1	Bright Side Detail	5/12/2006	Auto Detailing
2	Exquisite Mobile Detailing	9/19/2005	Auto Detailing
3	Mike's Mobile Auto Detailing	3/13/2006	Auto Detailing
4	Swain's Auto Detailing	9/1/2005	Auto Detailing
5	Triton Power Clean	10/6/2005	Power Washing

5 RESIDENTIAL

Land use in the City of La Mesa is largely residential, as shown in Figure 5.1. To address common residential activities that may pose a significant threat to storm water, the City has implemented many programs focused on reducing pollutant loads associated with such activities. Residential activities such as yard maintenance, landscaping, swimming pool and hot tub maintenance, home improvements, and vehicle care have the potential to introduce pollutants into the City's storm drain system if not managed properly. The City is dedicated to ensuring that residents are implementing activity-specific BMPs properly to eliminate the discharge of pollutants such as sediment, pesticides, herbicides, fertilizers, surfactants, oil and grease, and metals into the storm drain system. The City recognizes the need for educational efforts and opportunities designed specifically for residents and residential activities.

Figure 5.1 depicts the residential land use in the City. Gold areas are single-family homes, orange areas are multi-family housing such as duplexes or apartment buildings, brown areas are mobile home parks, and purple areas are other residential areas such as nursing homes.

Figure 5.1
Residential Land Use in the City of La Mesa



The City is dedicated to reducing pollutants discharged from residential areas by establishing programs designed to educate the public. The City has made BMP fact sheets and implementation strategies readily available to the general public. The City's JURMP Section 5.0 lists pollution prevention measures and BMPs for residential activities.

The following sections present activities conducted during this reporting period with respect to priority residential sources, BMP requirements and implementation, pollution prevention, inspections, compliance and enforcement, and training, education, and outreach activities. These activities are associated with the residential component of the JURMP and include conducting ongoing HHW collection events, distributing educational materials, and participating in community events.

PRIORITY RESIDENTIAL SOURCES

The City continues to identify residential areas that may pose a significant threat to water quality. These areas are prioritized as high priority, and the City takes action to ensure that the pollutant loads are reduced. Areas are identified and prioritized based on visual observations, institutional knowledge, and the Dry Weather Monitoring Program. The Dry Weather Monitoring Program contributes important information that aids in identifying priority residential sources by isolating areas with elevated pollutant levels.

As in previous reporting periods, the City of La Mesa elected to classify the following activities as high priorities.

- Automobile repair maintenance
- Automobile washing
- Automobile parking
- Home and garden care activities and product use
- Disposal of pet waste

In addition to the above activity-based prioritization, the City has noted several residential areas that, relatively speaking, pose higher threats to water quality. This information was derived from the results of the Dry Weather Monitoring Program, general knowledge of the City, and review of complaints, violations, and investigations. The following residential areas were designated as being high threat to water quality.

- Lower University Channel and surrounding areas
- Baltimore Drive and surrounding areas
- Lake Murray Basin
- Severin Drive and surrounding area

During this reporting period, no evidence was found to suggest that residential activities in the Lake Murray Basin area posed an immediate threat to water quality. However, because

Lake Murray is a valuable resource to the area, the City has chosen to continue to regard the area as a high priority as a proactive measure. During the 2005/2006 reporting period, minimal issues were noted in the area around Severin Drive. No problems were noted during the 2005 Dry Weather Monitoring Program. The 2006 Dry Weather Monitoring Program, which was initiated during the 2005/2006 reporting period, noted problems with over-irrigation in the area, and the City plans to follow up during the 2006/2007 reporting period. For this reason, the area was left on the high priority residential list.

Based on the findings of the 2005 Dry Weather Monitoring Program, two residential areas were found to have more elevated levels of pollutants. These sites are described below.

Baltimore Drive and Surrounding Areas

The area around Dallas Street, Nagel Street, Sarita Street, and Blain Place is a subsection of the larger area around Baltimore Drive. The land use in the vicinity of this area is primarily residential. Runoff from this area of the City eventually drains to Alvarado Channel. Similar to last reporting period, the Dry Weather Monitoring Program findings indicated that high concentrations of bacteria were observed in the non-storm water discharges observed in the MS4s. The highest total coliform count was found in surface flow on Nagel Street and Sarita Street. The source of bacteria was thought to possibly come from pet waste flushed into the storm water system by over-irrigation. Letters were sent to residents in this area educating them on the Dry Weather Monitoring results and ways for them to prevent storm water pollution and subsequently lower the total coliform counts in their area.

Lower University Channel and Surrounding Areas

This area was found last reporting period, as well as this reporting period, to be an upstream source of bacteria to the open channel between Harbison Avenue and Massachusetts Avenue. In this neighborhood, several instances of irrigation runoff were observed. The neighborhood includes La Mesa Dale Elementary School, which may also pose a significant threat to storm water due to potential contamination by food waste, litter, and organic debris.

During the Dry Weather Monitoring Program conducted in this reporting period, sediment and organic debris were noted as the most common problem. Decay of organic matter may be the primary source of bacteria at many of the sites. Over-irrigation, which has the potential to carry many pollutants to the storm drain system, was also noted as a common problem. A total of 212 letters were sent to residents in the residential areas discussed above detailing the kinds of pollutants found in their neighborhoods as well as ways to prevent pollution (Attachment 5.1). The letter outlined the types and sources of common residential pollutants. It also reminded residents that it is harmful to hose down sidewalk/driveway area, wash cars on the street, over-irrigate, over-fertilize, and not pick up pet waste. Residents were encouraged to share the information in the letter and to call the City's Environmental Specialist if they had additional questions.

Sampling and monitoring efforts from around La Mesa Dale Elementary indicated high levels of bacteria in the urban runoff. A letter was sent specifically addressing the school's

potentially harmful activities (Attachment 5.2). The principal of the school was urged to ensure that the facility maintenance manager is aware of good housekeeping and other storm water pollution prevention measures.

Sampling and monitoring efforts from around the Grossmont Shopping Center indicated high levels of phosphates and ammonia in the urban runoff. Further investigation found that these nutrient levels were not the result of residential activities, but they were rather due to landscaping management procedures in the shopping center itself. A letter was sent to the facility manager at the shopping center urging them to apply fertilizers and pesticides properly and to ensure that over-irrigation transporting such pollutants is not occurring (Attachment 5.3). The City's Environmental Specialist called property management to follow-up and ensure that the BMP requirements were clear.

BMP REQUIREMENTS

The City has addressed the Municipal Permit Residential Component requirements in the City's JURMP. Recommended BMPs were selected to address the requirements and are outlined in Section 5.3 of the JURMP. Additionally, the City encourages proper disposal of HHW through its collection programs and educational efforts. There were no changes to the residential BMP requirements during this reporting period.

BMP IMPLEMENTATION

The City continued to encourage residents to incorporate pollution prevention BMPs into their daily activities. The *La Mesa Focus* has played a major role in providing information to the public regarding acceptable storm water activities and the possible consequences of storm water contamination. Educational materials that include pollution prevention concepts as well as BMPs have been distributed throughout the City as part of the City's ongoing educational efforts. More information regarding educational material is included in Section 9 of this report.

The City's Storm Water Hotline is publicized as widely as possible to encourage the public to be more aware of storm water pollution prevention and reporting illegal discharges. The hotline augments the City's ability to identify and eliminate sources of pollution. The storm water hotline number is available in many of the educational brochures and articles as well as on the City's website. Furthermore, residents can submit a complaint on the City's website. The City immediately investigates public complaints. These investigations are the City's primary mechanism for notification of non-compliance with the Storm Water Ordinance in residential areas. Every effort is made to identify the responsible parties and to educate them regarding the NPDES program and City ordinances. During this reporting period, there were 133 complaints documented and addressed by the City. Section 8 provides a summary of the public complaints received, all of which were investigated and resolved. Several of the complaints were regarding residential activities. The complaints were received from individuals or City staff that witnessed potentially harmful activities, and each investigation was henceforth resolved.

As mentioned earlier in this section, when constituent concentrations above established action levels are indicated by the Dry Weather Monitoring Program, follow-up investigations are conducted to determine the source of pollutants. Neighborhoods with elevated levels of pollutants were targeted to receive letters (Attachment 5.1) informing them of the pollutants and relevant pollution prevention measures. A total of 214 letters were sent to residents, businesses, and schools in the targeted locations.

POLLUTION PREVENTION

The City understands that the ongoing education of residents regarding storm water pollution prevention and BMP implementation is central to preventing illegal discharges. The City has continued to publish articles in the quarterly *La Mesa Focus*. Approximately 30,000 copies of each newsletter are distributed among residents and businesses in La Mesa. Copies are available at many City facilities and an electronic copy can be found on the City's website. This reporting period, the newsletter featured three articles in three different newsletters. The articles, "Summer Gardens and Storm Water Pollution," "Q: What can I wash down the storm drain? A: NOTHING! Only rain should go down the storm drain," "Summer Storm Water Reminders," and "Don't Wash Money Down the Storm Drain," can be found as Attachments 3.5, 3.6, and 3.7. The articles are geared toward residents as well and industrial and commercial businesses.

The Summer/Fall 2005 newsletter included an article entitled "Summer Gardens and Storm Water Pollution." This article focused on certain garden techniques, such as the use of pesticides and synthetic fertilizers, which contribute to pollution in urban runoff. It provided suggestions on eliminating the need for pesticides, preventing weeds, and the benefit of planting native vegetation.

A second article circulating in December 2005 was entitled "Q: What can I wash down the storm drain? A: NOTHING! Only rain should go down the storm drain." The article explained how dumping pollutants in the storm drain harms the environment and is a violation of the City Storm Water Ordinance. It also provided ways to prevent storm water pollution by maintaining vehicles, using non-toxic products, cleaning up after pets, and sweeping frequently.

A third article that circulated in April 2006 was entitled "Don't Wash Money Down the Storm Drain," and was accompanied by "La Mesa's Watersheds." The second article described the concept of a watershed and that La Mesa is part of both the San Diego River and San Diego Bay watersheds. It also outlined the priority pollutants in both watersheds and stressed that over-irrigation contributes to higher levels of pollutants in both watersheds. The first article provided tips for avoiding over-watering and decreasing runoff.

During this reporting period, the August 2006 newsletter was being compiled, and it also included several articles regarding storm water: "Summer Storm Water Reminders;"

“Becoming a Green Business is Good Business;” and lastly, an article describing the success of the Creek to Bay Cleanup Day and future clean-up day information (Attachment 3.8).

This reporting period, the City distributed a fact sheet to residents entitled “Storm Water Pollution Prevention: Pools and Spas” (Attachment 5.4). This fact sheet outlines the proper disposal techniques for pool and spa water. The City made free IPM cards available at garden centers in both Target and Dixieline Lumber in La Mesa (Attachment 4.4). The IPM cards were developed as part of a regional effort to combat pesticide pollution and increase use of IPM techniques.

The City continued to hold HHW collection events at the EDCO Station on Commercial Street. Door to door pickup was also offered to residents age 65 and older and to disabled residents. A total of 100,125 pounds of HHW was collected through these programs; a breakdown of the collected wastes is included in Attachment 5.5. HHW collection events were held six times during the reporting year: July 2005, September 2005, November 2005, January 2006, March 2006 and May 2006. Approximately 200 participants were provided with “Put Toxic Waste in its Place” bags that included a “Put Toxic Waste in its Place” pen and brochure, a sticky note pad, a bookmark, a sponge, watershed factsheets, and a “Preventing Urban Runoff” brochure. All materials in the bag included an environmental message. The bag and its contents are provided as Attachment 5.6. In addition, two electronic waste events were held this reporting period. The City continued to distribute “Put Toxic Waste in its Place” brochures (Attachment 3.4) at public events.

The City also developed and distributed a “2006 La Mesa Community Calendar” to nearly 56,000 residents in the City. Incorporated in the calendar were various storm water pollution prevention tips and facts. Attachment 5.7 presents a copy of the calendar. It provided information about HHW events, contact information on where to report illegal discharges, and various storm water slogans.

COMPLIANCE & ENFORCEMENT

The City continues to implement the compliance and enforcement mechanism defined in the City’s JURMP. This includes identifying potential sources of pollutants in residential areas through the Dry Weather Monitoring Program, storm water hotline, and observations from the City’s staff. If there is a violation, the City provides a verbal warning, written warning, orders to abate or to correct, and ultimately a fine. The City received 133 complaints during this reporting period. Complaints were submitted through the storm water hotline, internally via the Public Works Department, and two were from the newly implemented web-reporting system, which is discussed later in this report. This reporting year, 16 NOVs, 10 written warnings, and 10 verbal warnings were issued to residents and/or landlords. Many of the minor cases involved residents who were unaware of residential BMPs and acceptable storm water activities, and the issue was resolved with a verbal warning and educational material. The more serious violations, such as discharging pool water improperly or washing debris into the street, were promptly cleaned by City staff and an NOV was issued to the violator. All complaints were resolved as described in Section 8 of

this Annual Report, and no further action, such as fines, or reports to the RWQCB were deemed necessary.

TRAINING, EDUCATION AND OUTREACH

The City continued to conduct training, education, and outreach activities during this reporting period. The following is a list of activities conducted.

- The City, in cooperation with the Solana Center, participated in two school outreach programs presenting HHW disposal information to elementary students at two schools in La Mesa.
- The City participated in the San Diego Bay Watershed Stewards program designed to educate fourth through sixth graders on watershed concepts. The City's Environmental Specialist coordinated with the La Mesa-Spring Valley School District to arrange for two classrooms of La Mesa fifth graders at Rolando Elementary to participate in the program. Further information about this program is provided in Section 10 of this Annual Report.
- The City, in cooperation with the Solana Center, continued to distribute "Less Toxic Yard and Garden Care" guides (Attachment 5.8). The booklet encourages residents to make use of native landscaping to avoid the need for herbicides, pesticides, and fertilizers. It also details the benefits of good bugs and mulching. The booklets were distributed at various community events and are available to the public at the Solana Center.
- Distributed 214 letters in response to Dry Weather Monitoring results to residents, a business, and a school. These letters addressed what pollutants were found in surrounding areas and various BMPs that can be implemented to reduce the amount of pollutant discharge. (Attachments 5.1, 5.2, 5.3).
- The City's Environmental Specialist presented an overview of the City's NPDES program to the City Council. The presentation was also broadcast on public access television, making it available to residents of La Mesa.
- Distributed a 2006 "La Mesa Community Calendar" with information about HHW events, where/how to report IC/IDs, and various storm water slogans.
- Made "Storm Water Pollution Prevention: Pools and Spas" available to the general public. The brochure outlined proper disposal methods for pool and spa waters (Attachment 5.4).
- Published "Summer Gardens and Storm Water Pollution" article in the Summer/Fall 2005 *La Mesa Focus* Newsletter (Attachment 3.5).
- Published "Q: what can I wash down the storm drain? A: NOTHING! Only rain should go down the storm drain" article in the December 2005 *La Mesa Focus* Newsletter (Attachment 3.6).

- Published “Don’t Wash Money Down the Storm Drain” and “La Mesa’s Watersheds” in the April 2006 *La Mesa Focus* Newsletter (Attachment 3.7).
- Initiated the development of the “Summer Storm Water Reminders” article, to be published in the August 2006 *La Mesa Focus* Newsletter (Attachment 3.8).
- Conducted six HHW events at EDCO Station, located at 8182 Commercial Street in the City of La Mesa. In addition, the City conducted two electronic waste disposals at various locations around the City.
- HHW guides and “Less Toxic Yard and Garden Care” were made available for residents at the Solana Center.
- Received public complaints through the storm water hotline and educated residents on storm water pollution prevention during the investigation process.
- Provided door-to-door collection of hazardous waste from residents who are 65 and older or disabled.
- Partnered with ILACSD to put on California Coastal Cleanup Day and the Creek to Bay Cleanup.
- Hosted Park Appreciation Day, a cleanup event for all City Parks. A total of 75 volunteers removed over three tons of trash and debris.
- Continued implementation of the Adopt a Park, Adopt a Block, and Canine Corners programs. These programs all involve residents in keeping their community clean and build awareness of how citizens’ actions affect the community.
- Initiated development of an ordinance that will ban smoking in parks. The ordinance was adopted in August 2006, just after the end of the reporting period. A reduction in smoking should result in less cigarette debris being discharged to the MS4.
- Continued the development of storm water educational kiosks for three City parks. The City will partner with local Eagle Scouts to build the kiosks, which should be completed in 2007.
- Residents who visited the City Public Works department were able to observe the informational Storm Water Bulletin Board that provides information about residential BMPs.

IMPLEMENTATION PLANS FOR 2006/2007

During the next reporting period, the City plans to undertake the following activities.

1. Continue to respond to public complaints from the storm water hotline.
2. Distribute educational materials to neighborhoods observed with high levels of pollutants based on the findings of the Dry Weather Monitoring Program and pursuant follow-up investigations.
3. Continue to implement the HHW program.

4. Continue holding cleanup events and encouraging residents to participate.
5. Continue to submit articles on storm water topics for the *La Mesa Focus* Newsletter.
6. Continue to work towards completing the informational kiosks at three city parks to educate park patrons on storm water activities.
7. Finalize and distribute the City information sheet "Storm Water Pollution Prevention: Over-Irrigation." A draft copy of this information sheet is included as Attachment 3.11.

JURMP UPDATE

No updates to the JURMP have been made under the residential section.

6 DEVELOPMENT PLANNING

The Municipal Permit requires that pollutant discharge from new development and redevelopment projects be minimized to improve storm water quality in the City of La Mesa. Such projects have a high potential for storm water pollution as a result of common activities associated with construction and demolition. Various types of pre-construction planning, such as identifying pollutants and conditions of concern and establishing BMPs to be implemented during and after construction, have been shown to significantly reduce the potential of pollutant discharge. Planning of this kind was the primary concern when, following the issuance of the Municipal Permit and the creation of the City's JURMP document, the City reevaluated the General Plan, made modifications to the development approval process, and increased education efforts focusing on new development and redevelopment projects. Though most major revisions to the General Plan were made at that time, the City continues to reassess and update its development-related processes in order to ensure that storm water pollution is minimized. One recent example of this is Municipal Code Chapter 14.27, enacted during this reporting period, which requires that certain percentages of all construction site waste be diverted from landfills. Such requirements help mitigate the environmental hazards associated with construction wastes.

ASSESSMENT OF GENERAL PLAN

Section F.1.a of the Municipal Permit requires the Copermittees to assess their general plans to ensure water quality and watershed protection provisions are included. In 2002, the City Council approved amendments to the General Plan that included storm water components. These revisions were presented in the JURMP 2001/2002 Annual Report and are still being implemented. The General Plan has not been amended since that reporting period.

DEVELOPMENT PROJECT APPROVAL PROCESS

All development projects in the City of La Mesa must comply with both the Municipal Permit and the General Construction Permit. The development project approval process continues to be implemented as outlined in the City's Municipal Code. The SWPPP and Water Quality Technical Report (WQTR) approval process has been refined to ensure that all submitted documents meet the minimum requirements of the City and the General Construction Permit before the project commences. The Storm Water Requirements Applicability Checklist (Attachment 6.1) continues to be used to determine whether a WQTR is required for a given project. Significant steps in the process are as follows:

- If a grading permit is needed, the applicant must follow the La Mesa Grading Plan Processing Procedures. This includes completing Appendix A of the local SUSMP in order to determine BMP requirements and submitting a SWPPP as part of the grading plans if the site is larger than one acre. If the project is subject to post-construction BMP requirements, a WQTR is required.

- The grading permit will be issued once the submitted SWPPP and WQTR, if necessary, have been approved.
- If a grading permit is not needed, the applicant must complete a Site Plan Checklist. Item A of the checklist requires the applicant to complete Appendix A of the local SUSMP.

Priority Projects are required to have a detailed WQTR as outlined in the City's SUSMP Ordinance. Certain significant non-priority projects must also submit a WQTR that is subject to less stringent requirements, namely that treatment control BMPs are not required. All submitted documents undergo a thorough review by the City's storm water consultant, D-MAX Engineering, Inc. (D-MAX). More information regarding these reviews can be found below, in the subsection entitled Technical Review of Construction BMP Plans.

Once the relevant documents have been approved, project plans are reviewed by the DAB, which ensures that all regulatory requirements have been met and evaluates the feasibility of the project. Later, another meeting involving the DAB and the project proponent may take place to resolve any concerns initially raised by the DAB review.

Eighteen projects were reviewed during this reporting period. These projects are summarized in the section entitled Redevelopment/Development Project Descriptions and in Table 6.1. Of these, all non-priority projects and three Priority Projects were approved during this reporting period.

REVISIONS TO ENVIRONMENTAL REVIEW PROCESS

No revisions were made to the environmental review process during this reporting period; the most recent revisions to this process were presented in the JURMP 2001/2002 Annual Report. The process consists of two main components: the Environmental Assessment and Initial Study Application, and the Environmental Initial Study Checklist. The first component, completed by the project representative, identifies the environmental impacts of the project, which may include erosion, drainage problems, and effects on water quality. The second component, prepared by the Environmental Review Coordinator, determines whether the project will potentially have significant environmental impacts, in which case an Environmental Impact Report (EIR) will be required. If an EIR is not required, the project approval process may proceed.

NEW DEVELOPMENT AND REDEVELOPMENT EDUCATION

Training, education, and outreach are integral to improving water quality and refining the development project approval process. As more people involved with the development process become better informed regarding environmental impacts of development and related storm water requirements, the City is more easily able to ensure that requirements of the Municipal Permit and General Construction Permit are being met. Therefore, the City has a vested interest in developing educational and outreach opportunities for project proponents. During this reporting period, the following education, outreach, and training activities were conducted:

- Training entitled “Construction Site Management and Watersheds” on 9/29/05, with four attending
- NPDES Storm Water Construction Site Management training on 10/28/05 with five people in attendance
- Training on prioritization of construction sites, the SUSMP Ordinance, BMP implementation, and the General Construction Permit on 12/9/05, with three attending
- Distribution of Appendix C of the JURMP, various storm water brochures, and San Diego Bay and River Watershed fact sheets to construction project proponents and owners

TECHNICAL REVIEW OF POST-CONSTRUCTION BMP PLANS

The City’s storm water consultant, D-MAX, generally conducts the technical reviews of WQTRs and SUSMPs submitted to the City during the project approval process. A SUSMP Review Checklist (Attachment 6.2) is used to determine whether all SUSMP requirements have been met, after which a detailed letter explaining the deficiencies of the submitted document and recommendations for improvement/approval is provided to the City and then passed on to the developer. If the initial document did not meet the minimum requirements, a revised document addressing the review comments must be submitted. This process continues until the document is approved; at that time the project may commence.

During the 2005/2006 reporting period, only documents submitted for non-priority projects were found to meet the minimum requirements upon the initial submission. The approval status for all SUSMP projects as of the end of the 2005/2006 reporting period can be found in Table 6.1.

Common problems noted during technical reviews of these documents are listed below.

- Calculations of pre- and post-development peak runoff rates are not present or not properly calculated.
- The list of anticipated and potential pollutants of concern is incomplete or incorrect.
- Conditions of concern are either not discussed or not sufficiently addressed.
- Site design and source control BMP descriptions are generic or otherwise not site specific.
- Site design BMPs are not implemented to the MEP and there is no explanation of why more effective site design BMPs are not proposed.
- Individual Priority Project BMPs for applicable Priority Project categories are not proposed.
- Calculation of SUSMP flow or volume for treatment control BMP sizing is either not present or is not properly calculated.

- The selected treatment control BMP does not have the highest possible removal efficiencies for anticipated pollutants, and there is no explanation present for why a more effective BMP could not be implemented.
- It is unclear whether runoff from the entire project footprint will be directed to a treatment control BMP, or the report states that some areas will not receive treatment at all. Also, the locations of these BMPs are not always clearly indicated.

The City continues to develop new ways to educate developers and project proponents regarding these common problems, as described in the New Development and Redevelopment Education subsection above. As a general trend, initial document submissions are more complete than in the past; however, as the City's review process has grown more stringent, it often takes multiple reviews before a document is approved.

DEVELOPMENT/REDEVELOPMENT PROJECT DESCRIPTIONS

Descriptions of projects submitting WQTRs during this reporting period are presented below. Some of these were initial submissions, while others were second or third versions of a document that was previously reviewed and did not meet the City's minimum requirements. The number of reviews of each document during this reporting period can be found in Table 6.1. An electronic spreadsheet is also maintained to track WQTR reviews and approval status.

Bougainvillea Walk

The WQTR for this project was initially submitted and reviewed during the 2004/2005 reporting period but was reviewed again during this reporting period. This project consists of the construction of 16 single-family, detached residences on a 1.8 acre lot.

Grossmont Hospital

This project includes the construction of an office building and a multi-story parking lot at the existing site of Grossmont Hospital. Construction will take place on an approximately 2.2 acre site.

Grossmont Terrace

This project involves the demolition of existing apartment buildings and the construction of a new, 58-unit condominium complex on a 3.47 acre site.

Grossmont Trolley Court Apartments

The WQTR for this project was originally submitted during the 2004/2005 reporting period but was reviewed again during the 2005/2006 reporting period. This project consists of the construction of 527 apartments on an 8.46 acre site.

La Mesa Live/Work Village

This project includes the construction of 15 attached townhome condominiums and associated parking; it is located on El Paso Street. The 0.52 acre site is currently undeveloped.

La Mesa Meadows

This project consists of the construction of 12 single-family, detached homes on a 10.5 acre site previously used as a nursery.

La Mesa Teen Center

This non-priority project includes the development of a recreation facility and the reconstruction of a small parking lot. It is located in the northwest portion of Highwood Park.

La Mesa Townhomes, Sites 1, 2, and 3

La Mesa Townhomes will be located at three noncontiguous sites from 7353 to 7604 El Cajon Boulevard. Sites 1, 2, and 3 each have separate SUSMP reports and propose to construct 49, 19, and 10 townhomes, respectively. Various existing buildings and a used car dealership will be removed from these parcels prior to construction.

La Mesita Place

This project includes the construction of 21 detached, single-family homes on a 1.24 acre lot.

Palm Avenue Townhomes

This project involves the construction of 12 single-family condominiums on a 0.74 acre site.

Palm Terrace

This project consists of the construction of a commercial building and a 26-unit condominium complex.

Portola

This project allows for the demolition of Coleman College, which currently occupies the 9.2 acre site, and the construction of 178 new attached residential units.

Primrose Drive

This non-priority project consists of the construction of four single-family, detached residences on two adjacent lots.

Village at Briercrest Park

This project consists of the construction of a residential care facility, including one multi-story building and parking areas.

Waite Drive

This project involves the demolition of an existing apartment building and the construction of a condominium complex.

IMPLEMENTATION PLANS FOR 2006/2007

The City will continue with the following activities during the next reporting period:

1. Providing education to project proponents through the preliminary development review process and distribution of educational materials
2. Continuing DAB meetings to discuss approvals as well as project concerns
3. Continuing the use of the Storm Water Requirements Applicability Checklist
4. Continuing to conduct technical reviews of Post-Construction BMP Reports

Table 6.1
Projects Submitting WQTRs to the City for Review

#	PROJECT NAME	LOCATION	DESCRIPTION	TYPE	# OF REVIEWS	APPROVED* (YES/NO)
1	Bougainvillea Walk	Milden St.	Detached Residential	Priority	3	Yes
2	Grossmont Hospital	Health Care Dr. and Center Dr.	Hospital Addition	Priority	2	No
3	Grossmont Terrace	Buckman St.	Attached Residential	Priority	1	No
4	Grossmont Trolley	S of I-8 and N of Fletcher Pkwy.	Attached Residential	Priority	2	Yes
5	La Mesa Live/Work Village	La Mesa Blvd. and El Paso St.	Attached Residential	Priority	1	No
6	La Mesa Meadows	Highfield Ave. and Garfield Ave.	Detached Residential	Priority	2	No
7	La Mesa Teen Center	7775 Junior High Dr.	Teen Center	Non- Priority	1	Yes
8	La Mesa Townhomes Site 1	7353 El Cajon Blvd.	Attached Residential	Priority	1	No
9	La Mesa Townhomes Site 2	7561 El Cajon Blvd	Attached Residential	Priority	1	No
10	La Mesa Townhomes Site 3	7604 El Cajon Blvd	Attached Residential	Priority	1	No
11	La Mesita	7360 La Mesita Pl.	Detached Residential	Priority	3	Yes
12	Lowell Street Condominiums	Lowell St.	Attached Residential	Non- Priority	1	Yes
13	Palm Ave	Palm Ave. and Pasadena Ave.	Attached Residential	Priority	3	No
14	Palm Terrace	Palm Ave. between Echo Rd. and Pasadena Ave.	Attached Residential; Commercial	Priority	2	No
15	Portola	7380 Parkway Dr.	Attached Residential	Priority	2	No
16	Primrose Drive	6145 and 6155 Primrose Dr.	Two Single-Family Homes	Non- Priority	1	Yes
17	Village at Briercrest Park	SR125 and Murray Dr.	Attached Residential	Priority	2	Yes
18	Waite Drive	Waite Dr. and Violet St.	Attached Residential	Priority	2	No

* By the end of the 2005/2006 reporting period

7 CONSTRUCTION

Construction activities can have significant effects on storm water quality when not closely monitored. A common pollutant at construction sites is sediment, which, besides being a pollutant itself, can carry other pollutants into the storm water conveyance system. Sediment can be prevented from flowing offsite by implementing the appropriate BMPs. Sediment control and soil stabilization BMPs are necessary at construction sites where grading activities take place. Guidelines for reducing the amount of sediment that can potentially discharge from a construction site are presented in the Municipal Permit and the General Construction Permit. Materials related to the construction process, such as concrete, fuel, or paint, can also pose a potential threat to water quality. Applicable BMPs can reduce or eliminate the potential for these pollutants to be transported off of a construction site and into the storm drain system.

The City has developed strict procedures for approving and monitoring construction projects. The City first determines which permit requirements apply to a particular project and prioritize projects based on size and activity. Then, as required by the Municipal Permit, the City ensures that high priority sites are inspected weekly during the wet season (October 1 through April 30), while medium and low priority sites are inspected twice during the wet season. The City's construction-related activities from this reporting period are presented in this section.

PRIORITY SOURCES

All construction project plans are reviewed by the City before the project can commence. Common project activities include grading, excavation, clearing, road construction, and structure demolition and/or building. The City has developed and maintains a watershed-based inventory based on project reviews, classifying each project as a high, medium, or low priority threat to water quality. Prioritization criteria, as outlined in Section 7.5 of the JURMP, include size, site slope, erosion potential, and proximity and sensitivity of receiving water bodies. Tables 7.1 and 7.2 present the inventory for private construction projects and Capital Improvement Projects (CIP) carried out during this reporting period.

BMP REQUIREMENTS

Section 7.6 of the City's JURMP enumerates BMP requirements for construction projects. Some major requirements are as follows:

- Project planning
- Erosion prevention
- Sediment containment
- Materials and equipment management
- Non-storm water discharge and drainage control

Appendix C of the JURMP also includes pollution prevention and good housekeeping fact sheets, which may be given to project coordinators as educational materials.

All projects greater than or equal to one acre in size are required by the General Construction Permit to prepare a SWPPP. Smaller projects often submit erosion control plans, which may also include BMPs. During this reporting period, there were no changes to BMP requirements.

POLLUTION PREVENTION

Pollution prevention measures, which are required by the Municipal Permit and General Construction Permit, are a means of avoiding illegal discharges and costly cleanups. Measures can be simple and planned ahead during initial project stages. For instance, planning to perform grading activities during the dry season rather than the wet season can greatly reduce the risk of pollutant discharge from a construction site. Construction materials and waste management is another important part of pollution prevention; a “Construction and Demolition Recycling Guide” is available for project proponents at the Building Department counter. Information regarding waste management plans, construction material recycling, and BMPs for construction and demolition are included in the pamphlet.

Also, during this reporting period a new ordinance was enacted in the City’s Municipal Code requiring that certain percentages of construction wastes be diverted from landfills (i.e., recycled). Chapter 14.27 of the Municipal Code states that for all construction projects greater than 2,500 square feet, as well as demolition and roofing projects, 50% of construction wastes must be diverted during the time that no mixed-use recycling facility exists in the City of La Mesa, and, pursuant to the construction of such a facility, 75% of construction wastes must be diverted. For the purposes of this ordinance, “diversion” can mean recycling, on-site reuse, salvage, or some other form of reuse of construction and demolition debris. The City has developed this ordinance in order to help mitigate the environmental hazards associated with the large amount of construction waste produced at construction sites.

Pollution prevention measures for activities associated with construction sites are presented in Section 7.1 of the JURMP. City staff discuss pollution prevention methods with project proponents during the application process and at pre-construction meetings. No changes have been made to the pollution prevention methods described in the City’s JURMP in this reporting period.

BMP IMPLEMENTATION

The City conducts inspections to ensure that project proponents are implementing effective BMPs as enumerated in the City’s JURMP. Section 7.6 of the JURMP presents the mandated BMPs for construction sites of all prioritizations. Project proponents are required to prevent discharges to the MEP. This is achieved through effective project planning and research,

erosion prevention, sediment containment, materials and equipment management, and non-storm water discharge and drainage control.

During construction site inspections, the City's inspectors check that proper BMPs are employed and that instructions laid out in erosion control plans, SWPPPs, or other applicable documents are being followed. If any corrective actions are necessary to ensure effective BMP implementation, they are discussed with the person(s) in charge.

COMPLIANCE AND ENFORCEMENT

Section 7.8 of the JURMP outlines the mechanism for construction site compliance and enforcement. Enforcement actions include verbal warnings, written warnings, stop work orders, denial and revocation of permits, and civil and/or criminal court action. Although this process was not necessary in 2005/2006, if a site operator refuses to comply with the enforcement process, the City will report them to the RWQCB.

This method of enforcement maximizes compliance and the implementation of storm water pollution prevention measures. Educational materials regarding compliance and enforcement are available for City storm water compliance inspectors and other employees. The "Construction Site Inspection Procedure Sheet" (Attachment 7.1) covers topics such as the wet season and dry season inspection schedules, inspection procedures, and how to report a threat to human or environmental health to the RWQCB. Also available is a "Notice of Violation Procedural Sheet" (Attachment 2.3) that describes why a violation is issued, recommended corrective actions, enforcement procedures, and follow-up actions.

During this reporting period, the City conducted construction site inspections in accordance with the Municipal Permit inspection frequency requirements. Inspectors were on site and conducted inspections at high priority locations weekly during the wet season (October 1 through April 30). Medium and low priority sites were inspected twice during the wet season, though some sites were completed in a short period of time and could be inspected only once. During this reporting period there were 31 private construction projects and four CIPs. The updated inventory for private and public construction projects are presented in Table 7.1 and Table 7.2., respectively.

The City continues to cooperate and actively participate in compliance activities in conjunction with the RWQCB. An inspector from the RWQCB, Dat Quach, conducted four high priority construction inspections along with City inspectors. Maintaining a cooperative relationship with the RWQCB is essential to an effective inspection and compliance program.

The City's storm water compliance inspectors monitored construction activities to ensure compliance with Municipal Permit and the General Construction Permit. As necessary, the inspectors recommended corrective actions and discussed effective BMP implementation with the proponents at their project site. Inspectors revisited sites that required significant corrective actions.

To ensure that smaller facilities that are not routinely inspected by the City's storm water staff are properly implementing necessary BMPs, the building inspector has become involved in BMP inspection. The building inspector issues a BMP stamp of approval on the building permit if all BMPs are being implemented properly. The building inspector works with the site to resolve any potential problems, issuing the stamp upon resolution. If the building inspector notes any major problems and cannot issue the stamp, then the City's Environmental Specialist is notified to conduct further enforcement. During the 2005/2006 reporting period, the building inspector was able to resolve any BMP implementation issues without the requested additional assistance from the City's Environmental Specialist.

During this reporting year, there were a total of 91 inspections of medium and low priority sites. Of these 90 inspections, 66 were routine inspections and 25 were follow-up inspections. The three high priority sites were inspected weekly. This reporting year, the City issued nine NOVs to construction sites. A blank copy of NOV form used is included as Attachment 7.2. Improper BMP implementation, such as failing to employ or maintain appropriate erosion control BMPs, was the primary cause of NOV issuance. In these cases, the inspector discussed proper BMP implementation with the site manager and conducted follow-up inspections until compliance was achieved and no further action was necessary. In this reporting period, no construction sites were deemed to present a threat to human or environmental health, and thus no reports were made to the RWQCB.

TRAINING, EDUCATION AND OUTREACH

The following list provides the City's training, education, and outreach activities during this reporting period:

- Developed and distributed "JURMP BMP Handbook for Construction Activities" educational booklet (Attachment 7.3)
- Conducted a training entitled "Construction Site Management and Watersheds" on 9/29/05 with four employees attending
- Conducted two Construction Inspection Field Exercises, on 10/18/06 and 10/24/06, each time with one employee in attendance
- Conducted "NPDES Storm Water Construction Site Management" on 10/28/06, with five in attendance
- Conducted NPDES training, including material specific to construction, on 12/9/06, with three employees attending
- Presented an overview of the City's storm water program, including the construction component, to the Mayor of La Mesa and City Council Members . The presentation was also televised.
- Continued to educate project proponents during the project approval process

- Continued to distribute Construction Site Inspection Procedure Sheet (Attachment 7.1) for NPDES Storm Water Compliance Inspectors
- Continued to educate site managers on effective BMP implementation during the NPDES storm water compliance inspections
- Continued to distribute a “Guide for Construction Activity” (Attachment 7.4), available at the City’s front desk
- Continued to distribute a general brochure entitled, “Construction and Demolition Guide” (Attachment 7.5), which is available to the public at www.cityoflamesa.com.

IMPLEMENTATION PLANS FOR 2006/2007

The City plans to implement the following during the next reporting period:

1. Continue reviewing construction projects as discussed in the JURMP
2. Continue distributing educational brochures
3. Continue conducting inspections of high priority construction sites on a weekly basis and medium and low priority sites twice during the wet season
4. Continue to partner with the building inspector to ensure BMP implementation at minor projects.
5. Continue distributing the Construction Site Inspection Procedure Sheet to storm water compliance inspectors
6. Conduct training sessions regarding construction site information for City employees

JURMP UPDATE

No JURMP updates have been made in this reporting period.

Table 7.1
Private Construction Projects - Updated or Fiscal Year 2005/2006

#	PROJECT	LOCATION	PRIORITY	WATERSHED
1.	Eastridge Subdivision	3957 Murray Hills Road	High	San Diego Bay
2.	Condos (30 Condo Units)	7378 Orien Avenue	<i>Medium changed to High</i>	San Diego Bay
3.	Condo 30 units	5090 Guava Ave	Medium	San Diego River
4.	Condos (Aragon)	7701 El Cajon Blvd	Medium	San Diego River
5.	Kaiser	8010 Parkway Drive	Medium	San Diego River
6.	16 Condos (Bougainvillea Walk Subdivision)	9535 Milden Street	Medium	San Diego River
7.	SFH	4344 Date Avenue 4450 Date Avenue 4460 Date Avenue 4470 Date Avenue	Medium	San Diego Bay
8.	SFH	7531 Ohio Place 7533 Ohio Place 7535 Ohio Place 7537 Ohio Place	Medium	San Diego Bay
9.	MFH	7360/7370 La Mesita Place	Medium	San Diego Bay
10.	50 Multi Units (Briercrest)	9000 Murray Drive	Medium	San Diego River
11.	Addition to Existing Home	4292 Merritt Blvd	Low	San Diego Bay
12.	Garage Replacement	4661 Maple Ave	Low	San Diego Bay
13.	Retaining Wall	5137 Guava Ave	Low	San Diego River
14.	SFH	9530 Jiola Way	Low	San Diego Bay

Table 7.1 (Continued)
Private Construction Projects - Updated for Fiscal Year 2005/2006

#	PROJECT	LOCATION	PRIORITY	WATERSHED
15.	SFH	9535 Grossmont Blvd	Low	San Diego River
16.	Wendy's	5450 Jackson Drive	Low	San Diego River
17.	SFH	4360 Merritt Blvd	Low	San Diego Bay
18.	SFH	9038 Mollywoods Ave	Low	San Diego Bay
19.	SFH	3760 Belvue Drive	Low	San Diego Bay
20.	Residential	7576 Saranac Ave	Low	San Diego River
21.	Residential	6351 Falmouth Dr	Low	San Diego River
22.	SFH	4415 Upland Street	Low	San Diego Bay
23.	SFH	9320 Madison Avenue	Low	San Diego Bay
24.	Windsor Hills Tank Replacement	4165 W. Arrieta Circle	Low	San Diego Bay
25.	MFH	4241 Lowell St	Low	San Diego Bay
26.	SFH	4780 Lee Ave	Low	San Diego Bay
27.	Retaining Wall	3780 Waite Drive	Low	San Diego Bay
28.	SFH	9575 Lemon Ave	Low	San Diego Bay
29.	Residential	4356 Valle Drive	Low	San Diego Bay
30.	Residential-Yard	9740 Lake Helix Terrace	Low	San Diego Bay
31.	Residential-Wall	4606 Munroe Street	Low	San Diego Bay

Table 7.2
City Capital Improvement Projects - Updated For Fiscal Year 2005/2006

#	PROJECT	LOCATION	PRIORITY	WATERSHED
1.	Fire Station 11	8054 Allison Avenue	High*	San Diego Bay
2.	Junior Seau Sports Complex Phase 3 & 4	Parkway Middle School, Park Plaza Drive	Medium	San Diego River
3.	Street Lights For Utility Undergrounding District 23	Jackson (between Lemon & I-8)	Low	San Diego Bay
4.	Jackson Park Restroom	Jackson Drive/Jackson Park	Low	San Diego River

* The Fire Station would ordinarily be a medium priority site, but the City chose to make it high priority as a proactive measure.

8 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City of La Mesa actively works to identify, eliminate and prevent IC/IDs. IC/IDs have the potential to transport pollutants picked up along their courses to the MS4. The City actively seeks to prevent and eliminate IC/IDs in order to reduce the presence of pollutants in the City's storm water conveyance system and in urban runoff. The continued monitoring of IC/IDs is one way of evaluating the effectiveness of the City's efforts in education and pollution prevention. The City also recognizes that public awareness of storm water concerns, along with providing a means to report IC/IDs, are important tools in preventing and treating IC/IDs. Three different mechanisms by which this can be accomplished are described in Section 8 of the City's JURMP and listed below:

- Inspecting Local Businesses, Construction Sites, and Municipal Facilities
- Conducting the Dry Weather Monitoring Program
- Operating a Public Complaint Hotline

All three form a comprehensive system to better the quality of storm water and urban runoff throughout the City. A more detailed description of the inspection program and its results can be found in sections 2, 3, 4 and 7 of this Annual Report. This section includes a detailed discussion of both the Dry Weather Monitoring Program and the Public Complaint Hotline.

DRY WEATHER MONITORING PROGRAM

The Municipal Permit requires that Copermittees institute a Dry Weather Monitoring Program to detect and eliminate IC/IDs to the storm drain system. The Dry Weather Monitoring Program also provides some level of quantifiable measurements of the City's progress toward meeting its water quality goals. The City uses the findings from this program to determine the areas toward which it would be most useful to target its educational and enforcement programs. The official dry weather season starts on May 1 and ends on September 30 of each year. The Dry Weather Monitoring Program is conducted in three parts during this time frame: (1) field screening observations, (2) field screening analytical monitoring, and (3) laboratory analytical monitoring. The 2005 Dry Weather Field Screening and Analytical Monitoring Program Report is included as Attachment 8.1 of this report.

Established action levels are used to verify whether constituent concentrations measured in the field and laboratory are at levels potentially indicating an IC/ID. The action levels were adopted in 2003 and were based on statistical analysis of previous Dry Weather Monitoring Program data. The California Toxics Rule (CTR) Criteria Maximum Concentration equations are used to calculate the action levels for dissolved metals. In determining whether or not certain field parameters such as temperature or turbidity warrant upstream investigations, best professional judgment is used.

A total of 18 primary monitoring stations have been selected by the City of La Mesa to be used for collecting Dry Weather Monitoring Program data. Table 8.1 includes these stations and their locations within La Mesa. In the instance that a primary monitoring site may be dry or not possible for sampling, there are nine designated alternate monitoring stations specified in the JURMP that can be used as a replacement. The City of La Mesa's Dry Weather Monitoring Program sites are located within the following drainage basins.

- Alvarado Channel Basin
- Lemon Grove Basin
- Spring Valley Basin
- University Channel Basin

2005 DRY WEATHER MONITORING PROGRAM

The City's storm water consultant, D-MAX, began the 2005 Dry Weather Monitoring Program in late June 2005 and completed the program early in the 2005/2006 reporting period. Water was observed flowing at 16 of the 18 sites visited during the 2005 program. No sites were observed dry; therefore, no alternated sites were visited. At all 18 sites, visits included qualitative observations, flow measurements, and field water quality analyses of specific conductance, temperature, pH, turbidity, detergents (measured as Methylene Blue Active Substances, or MBAS), nitrate nitrogen, ammonia nitrogen and orthophosphate phosphorus. Laboratory analysis was conducted using water samples from five sites, representing over 25 percent of the total number of sites. Laboratory analysis was conducted for total hardness, surfactants, oil and grease, diazinon, chlorpyrifos, dissolved metals (cadmium, copper, lead, and zinc), total coliform bacteria, fecal coliform bacteria, and enterococcus bacteria.

Field screening of physical parameters measured resulted in pH values ranging from 6.8 to 8.8, temperatures from 19.2 to 26.1 degrees Celsius (°C), conductivity measurements from 434 to 3,050 micromhos per centimeter (µmhos/cm), and turbidity readings from 0.32 to 22.94 Nephelometric Turbidity Units (NTU). Field screening of chemical parameters measured resulted in a range of nitrate nitrogen concentrations from 1.25 to 7.5 milligrams per liter (mg/L), with no site having a nitrate concentration above the established action level. Ammonia nitrogen concentrations ranged from 0.1 to 10 mg/L. Site 35 was the only location to exceed the action level of 1.0 mg/L for ammonia. Orthophosphate phosphorus concentrations ranged from 0.07 to 2.12 mg/L with Site 35 again being the only location to exceed the action level. By the return visit, orthophosphate phosphorus concentrations had dropped below the action level for Site 35. Detergents concentrations ranged from 0.13 to 1.0 mg/L MBAS. Site 52 matched the action level for detergents, 1.0 mg/L, but dropped below the action level by the time of the follow-up visit. Data for the field screening results is presented in Table 8.2.

The results from laboratory analysis indicated that three of the five sampling sites had at least one bacterial indicator measured above its action level. Measured levels of all three

bacterial indicators measured at Site 4A exceeded their respective action levels. Site 4A had a total coliform count of 240,000 most probable number of colony-forming units per 100 milliliters (MPN/100 mL), a fecal coliform count of 24,000 MPN/100 mL, and an enterococcus bacteria count of 160,000 MPN/100 mL. Sites 12A and 14A both recorded total coliform counts above the established action level, with counts of 130,000 MPN/100 mL and 240,000 MPN/100 mL, respectively. Neither dissolved cadmium, nor copper, nor lead were detected at any of the sampling sites. Dissolved zinc was detected at Site 14A and Site 39, but not at concentrations exceeding the CTR action level. Diazinon was detected at one site, Site 57, but at a concentration below the action level. Chlorpyrifos, oil and grease, and surfactants were not detected at any of the sites sampled for laboratory analysis. Data for the laboratory results is presented in Table 8.3.

2005 FOLLOW-UP INVESTIGATIONS

The follow-up investigation portion of the Dry Weather Monitoring Program is used as a means to further investigate sources of pollutants that were detected during the initial field screening and laboratory analysis of each site. In 2005, four sites received upstream investigations. Site 4A was investigated for all three bacterial indicators: total coliforms, fecal coliforms, and enterococci. Sites 12A and 14A were both investigated further for total coliform bacteria. Site 35 was investigated for an elevated ammonia concentration. This was the only site to have a follow-up investigation for a parameter other than bacteria. During the follow-up investigations, visual observations were made for each site, and standard physical parameters temperature, pH and conductivity were measured. Field tests were conducted for the constituent(s) that had exceeded the action level for each site and also for upstream locations that may have been the potential sources of flow/pollution to the site.

Site 4A is located toward the downstream end of the concrete Alvarado Channel in La Mesa, located near the intersection of Fletcher Parkway and Baltimore Drive. Alvarado Channel drains much of the runoff from the northern portion of the City. Similar to the previous year, upstream bacterial investigations indicated that high bacterial readings were the cumulative effect of many lateral flows into the channel rather than one main point source. Animal waste and decaying trash and organic material were observed in catch basins and gutters, which were credited with being the most likely sources contributing bacteria to Site 4A. Educational letters discussing the observed monitoring results in the area and BMPs that should be implemented (Attachment 5.1) were mailed to businesses and residents in the vicinity of Sarita Street, along Parkway Drive east of Jackson Drive, and in the vicinity of Marengo Avenue.

The total coliform counts for Site 12A were attributed to organic debris found on streets, catch basins, and street level inlets near Site 12A. Site 12A also contributes flow to Site 4A; therefore, bacteria present in water at Site 12A may affect bacterial levels downstream at Site 4A. Educational letters discussing the observed monitoring results in the area and BMPs that should be implemented (Attachment 5.1) were mailed to businesses and residents in the vicinity of Jackson Drive, Grossmont Boulevard, and La Mesa Boulevard.

The bacteria measured at Site 14A were not pinpointed to any particular point source. Overirrigation and decomposition of organic material in the vicinity of La Mesa Dale Elementary School and the neighboring residential area could be generalized sources. The City mailed letters to residents in the area (Attachment 5.1) and a specific letter to La Mesa Dale Elementary School (Attachment 5.3). Both letters discussed the results of the bacteria monitoring and included BMPs that should be implemented to control sources of bacteria.

The high ammonia concentrations measured at Site 35 was found to originate from improper plant food application and irrigation practices of the flower beds inside the Grossmont Center Shopping Center. The high monitoring result was brought to the attention of the individual responsible for the mall's landscaping practices, who then recognized that it was due to over-irrigation coupled with fertilization. The City sent the shopping center a letter (Attachment 5.2) and followed up with a phone call to property management. Action was taken to correct the problem. The effects of this incident appeared to be only short-term and not widely spread.

The results of the 2005 Dry Weather Monitoring Program demonstrate the City of La Mesa's continued success in identifying, eliminating and preventing IC/IDs. For the fourth consecutive year, nitrate did not exceed its action level at any of the tested sites. Also, ammonia was the only parameter tested during field analysis that exceeded the action level during both initial and follow-up site investigations. The elevated ammonia concentration measured at Site 35 was traced to a point source and eliminated. The number of sites with elevated bacterial indicators remained the same, three, between 2004 and 2005. Of those three sites, only one site had evidence of elevated fecal coliform bacteria and/or enterococcus bacteria. A total of 214 educational letters, discussed above and in Section 5, were mailed to residents and businesses as follow-up actions to the Dry Weather Monitoring Program.

2006 DRY WEATHER MONITORING PROGRAM AND FOLLOW-UP INVESTIGATION

The 2006 Dry Weather Monitoring Program for the City of La Mesa began in late June 2006. The Follow-up investigations of the sites were conducted shortly afterwards, during the 2006/2007 reporting period. Because follow-up investigations and recommendations for the 2006 Dry Weather Monitoring Program were not completed by the end of 2005/2006, a more detailed discussion of the 2006 Dry Weather Monitoring Program will be covered in the 2006/2007 JURMP Annual Report. A brief summary of the 2006 Dry Weather Monitoring Program is presented below.

None of the field screening investigations indicated that nitrate or orthophosphate phosphorus were at concentrations exceeding their respective action levels. Ammonia was measured above the established action level at three different sites, but the concentration for each dropped below the action level by the time of site re-inspection, indicating they were likely the result of transient flows. Detergents were also measured above the action level at

one site, but the concentration dropped below the action level by the time of the follow-up visit in this case as well. Laboratory results from the five sampling locations showed that constituents such as oil and grease, surfactants, chlorpyrifos, diazinon, and dissolved lead, copper, zinc and cadmium were either not detected or detected at levels below the established action levels. Of the four sites with elevated total coliform bacteria counts, only one of the sites had a fecal coliform count measured above the action level. No site was found to have enterococcus bacteria counts measured above the action level. The 2006 Dry Weather Field Screening and Analytical Monitoring Program report is provided as Attachment 8.2.

COMPLAINT REPORTING OF IC/IDS, INVESTIGATION AND ENFORCEMENT

The City recognizes that both public and municipal involvement is critical to the prevention and elimination of IC/IDs to the storm water conveyance system. The storm water public complaint hotline provides an effective means for individuals in the community to report suspected IC/IDs. The number for this hotline is published on the City's website, in storm water brochures available in public locations, and in storm water articles in the *La Mesa Focus* newsletter. During the reporting period, the City further added an online complaint reporting portal to its website, which provides another avenue through complaints may be reported. All complaints received through the hotline and the website are logged onto a spreadsheet for documentation and tracking purposes. Each of the complaints logged are then investigated by City personnel to determine if in fact pollutants are being discharged into the MS4. All attempts are made to find the responsible parties for any IC/ID that is confirmed. The responsible parties are educated and/or cited as necessary and required to cease all and any illegal discharges. The Public Works department is also frequently contacted regarding storm water related complaints, often related to infrastructure concerns. All complaints reported to the Public Works department are tracked and investigated in a similar manner to those reported through the hotline. The City considers tracking and resolving these complaints an extremely important part of JURMP implementation.

A summary of the reported violations that were investigated by the City between July 1, 2005 and June 30, 2006, is shown in Table 8.4. A total of 133 complaints were documented during the 2005/2006 reporting period, an increase from 74 documented the previous reporting period. Table 8.4 includes both the complaints made via the storm water hotline or website and the relevant complaints made to the City Public Works Department.

The City's complaint records indicate that each reported complaint received a follow-up investigation. A total of 107 of the 133 complaints documented warranted further City action to resolve the situation. The remaining 26 complaints were found to be either inaccurate or were drainage problems that were the responsibility of private property owners. Last year 74 complaints were documented, and only 49 were documented in 2003/2004. The monitoring results available to the City do not indicate a dramatic worsening of storm water quality in the MS4. This increasing trend in the number of reported complaints is thus unlikely to be due to a significant increase in IC/IDs, and it may

indicate that the City's programs to educate the community regarding storm water issues have been effective in increasing public awareness of what storm water problems are and where to report them. The City was also able to identify and eliminate two illicit connections and 33 illegal discharges through complaint responses. Those incidents are described in Table 8.4.

RESPONSE TO SPILLS

The City continues to maintain a Sewer Overflow Prevention Plan and a Sewer Overflow Response Plan. The condition of public sewer lines is routinely inspected, and preventative maintenance is conducted when needed. Preventative maintenance is not conducted on private laterals, as they are private property, but the City is always willing to assist in containment and cleanup of sewer spills from private laterals if the sewage is a threat to the MS4.

The City also maintains a public complaint hotline, which provides a means for the general public to report any SSOs. As mentioned above, information for the hotline can be found online and at various municipal locations. In more remote locations within the City's jurisdiction, signs are posted with emergency contact information indicating whom to contact to report a spill. Currently the City maintains 33 such signs. During this reporting period, a total of two spills occurred. The most recent spill occurred on June 16, 2006. A minor sewer overflow estimated at 140 gallons was reported at the intersection of 70th Street and Amherst Street, which is within the San Diego River Watershed. The cause of the overflow was reported to be from a grease blockage within the system. The spill was initially phoned in to the City of San Diego, which maintains the sewer system in that area. All of the sewage wastewater was captured and properly disposed before reaching University Channel. The City of San Diego also flushed the storm water conveyance system to clean out any residuals.

The other spill reported to the City occurred on August 3, 2005. The City received an internal complaint that sewage was observed discharging at the Crossroads Mall, between El Cajon Boulevard and Baltimore Drive, into the MS4 of a privately owned parking lot. This location is in the San Diego River Watershed. The City responded by placing sandbags in front of the storm drain inlet to prevent any flow from reaching the storm water conveyance system. The City also posted stop work notices to stop business activities that could generate additional sewer overflows. City officials also contacted individuals from the realty company that owned the property. An NOV was issued to the realty company for the non-storm water discharge. The company was required to contact a plumber to stop the overflow and hire an outside company to clean all debris from the roadway/parking lot and properly dispose of it, and backflush the storm drain conveyance system while recovering any wastewater generated. The City's Environmental Specialist was on site to ensure that all waste water was collected and cleaning was performed properly. The City billed the property management company \$809.50 to recover costs for the spill response. The City also contacted the County Department of Health on August 4, 2005, to provide a 24-hour verbal notice and provided information regarding the spill to the San Diego Regional

RWQCB. It was estimated that less than 100 gallons of sewage may have been discharged into the privately owned storm drain system and eventually to Alvarado Channel.

IMPLEMENTATION PLANS FOR 2006/2007

1. The City will again conduct the Dry Weather Field Screening and Analytical Monitoring Program for the 2007 dry season in compliance with the Municipal Permit.
2. Follow-up investigations will be conducted to further characterize potential pollution sources detected during the Dry Weather Monitoring Program.
3. The City will conduct further follow-up investigations to identify, prevent and eliminate problematic areas recognized in the 2006 Dry Weather Monitoring Program. Since those follow-up investigations will occur during the 2006/2007 reporting period, the results of the investigations will be presented in the 2006/2007 JURMP Annual Report. Any significant sources of pollution identified in those investigations will also be included in the 2006/2007 JURMP Annual Report.
4. The public complaint hotline will continue to be used as a means for the public to report potential storm water pollution threats. Information gathered from the hotline will then be used during follow-up investigations in order to identify, prevent and eliminate any potential threats.
5. The City is considering conducting wet weather monitoring to further characterize potential pollution sources in its jurisdiction. This information is anticipated to provide additional guidance for the City's source abatement efforts.

Table 8.1
2005 Dry Weather Monitoring Locations

Site ID	Location	Conveyance	Primary Land Use	Secondary Land Use	Hydrologic Unit	Latitude	Longitude
4A	Alvarado Channel, intersection of Fletcher Parkway and Baltimore Dr.	Concrete Channel	Commercial	Commercial	907	32.77364	-117.02771
12	Jackson Drive, 100 feet west of Murray Drive, north side of street	Manhole	Commercial	Commercial	907	32.77641	-117.01414
12A	Jackson Drive, 100 feet west of Murray Drive, south side of street	Manhole	Commercial	Residential	907	32.77611	-117.01453
13B	Southwest corner of Lowell Street and University Avenue	Manhole	Commercial	Residential	908	32.75688	-117.03738
13C	Intersection of University Avenue and Parks Avenue	Manhole	Commercial	Residential	908	32.76004	-117.03346
14A	Boulevard Drive between Harbinson Ave. and Massachusetts Ave. across from 7105 – 7033	Outlet	Commercial	Residential	908	32.75438	-117.04535
34	Grossmont Shopping Center, in front of Sportmart	Manhole	Commercial	Commercial	907	32.77694	-117.01077
35	Inside Grossmont Shopping Center, in front of Bath and Body Works	Manhole	Commercial	Commercial	907	32.77841	-117.01070
39	Grossmont Shopping Center parking lot between Staples & Mattress Discounters	Manhole	Commercial	Commercial	907	32.77733	-117.00713
40	N.E. corner of Grossmont Center Drive and Murray Drive, south of Trader Joe's parking lot.	Manhole	Commercial	Commercial	907	32.77848	-117.00639
50	Harbinson Ave. and University Ave. intersection, west sidewalk, east of CB Hair and Nails	Manhole	Residential	Commercial	908	32.75516	-117.04584
52	Massachusetts Ave., Waite Dr., south end of Harris St.	Outlet	Residential	Residential	908	32.74514	-117.03931
55	Bancroft Dr., Madison Ave., east of residential address 9132	Natural Creek	Residential	Residential	909	32.76970	-117.00019
57	Amaya Dr., east of Severin Dr., across from Howell Dr.	Earthen Channel	Residential	Residential	907	32.78532	-116.99744

Table 8.1 (Continued)
2005 Dry Weather Monitoring Locations

Site ID	Location	Conveyance	Primary Land Use	Secondary Land Use	Hydrologic Unit	Latitude	Longitude
58	Northeast corner of Amaya Dr. Amaya Ct. intersection	Manhole	Residential	Residential	907	32.78625	-117.00143
59	Southeast corner of Parkway Dr. and Amarillo Ave. intersection	Natural Creek	Residential	Residential	907	32.78180	-117.01328
61	Center Dr., Commercial St., west of Industrial Lane in front of City Public Works	Catch Basin	Commercial	Industrial	907	32.77259	-117.02238
64	North side of Seton Hall St., between Swarthmore St. and Wheaton St.	Concrete Channel	Residential	Residential	907	32.77651	-117.03462

Table 8.2
Summary of Field Analytical Results

Site No	Date	Time	Flow gpm	Temp. °C	pH	Turbidity NTU	Conductivity µmhos/cm	Detergents mg/L MBAS	Ammonia mg/L NH ₃ -N	Nitrate mg/L NO ₃ -N	Orthophosphate-P PO ₄ -P mg/L
4A	6/14/05	9:25	162.0	20.3	8.1	10.71	1891	0.75	1.0	2.50	0.33
4A(follow-up)	6/15/05	8:20	162.0	19.3	8.0	nt	1550	nt	0.2	nt	nt
12	6/14/05	13:10	5.0	22.0	6.8	22.94	1670	0.50	0.7	5.00	0.26
12A	6/15/05	8:40	10.0	20.5	7.4	7.86	1740	0.50	0.8	7.50	0.10
13B	6/13/05	14:40	3.0	24.2	7.5	15.14	1590	0.38	0.3	5.00	1.63
13C	6/14/05	14:05	10.0	22.8	7.8	17.87	2830	0.38	0.2	3.75	0.20
14A	6/14/05	8:35	37.0	21.1	7.6	0.52	2200	0.50	0.2	3.75	0.20
34	6/14/05	15:30	10.0	21.1	7.5	6.49	1457	0.50	0.4	6.25	0.26
35	6/14/05	16:30	1.0	22.9	7.2	15.81	434	0.13	10.0	1.25	2.12
35 (follow-up)	6/15/05	10:45	trickle	21.2	7.6	nt	1039	nt	3.0	nt	0.10
39	6/14/05	10:30	7.0	21.2	7.4	9.02	990	0.50	0.3	1.25	0.10
40	6/14/05	14:55	5.0	22.1	7.2	14.74	977	0.25	0.8	1.25	0.13
50	6/13/05	13:55	3.0	23.6	7.6	1.01	2110	0.50	0.2	3.75	0.33

Table 8.2 (Continued)
Summary of Field Analytical Results

Site No	Date	Time	Flow gpm	Temp. °C	pH	Turbidity NTU	Conductivity µmhos/cm	Detergents mg/L MBAS	Ammonia mg/L NH ₃ -N	Nitrate mg/L NO ₃ -N	Orthophosphate-P PO ₄ -P mg/L
52	6/13/05	15:20	trickle	25.7	7.2	15.43	2690	1.0	0.7	1.25	0.49
52 (follow-up)	6/14/05	11:40	trickle	22.1	7.2	nt	3050	0.50	nt	nt	nt
55	6/15/05	14:55	15.0	21.2	8.0	1.70	2690	0.25	0.1	1.25	0.13
57	6/15/05	9:15	3.0	19.2	7.6	1.18	1736	0.25	0.3	1.25	0.26
58	6/15/05	15:55	5.0	21.4	7.2	17.57	2010	0.25	0.6	1.25	0.07
59	6/15/05	14:00	2.0	26.1	8.4	0.32	1980	0.25	0.2	2.50	0.20
61	6/15/05	11:25	ponded	19.9	7.4	4.78	900	0.88	0.4	1.25	0.10
64	6/15/05	13:15	ponded	25.7	8.8	2.35	930	0.50	0.4	1.25	0.49

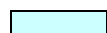
Red Bold Type = Values that exceed action levels

nd = Not detected



denotes a follow-up visits

nt = Not tested



denotes a location sampled for laboratory analysis

Table 8.3
Summary Laboratory Analytical Results

Site No.	Date	Time	Surfactants mg/L MBAS	Oil and Grease mg/L	Total Hardness mg/L CaCO ₃	Cadmium mg/L	Copper mg/L	Lead mg/L	Zinc mg/L	Diazinon µg/L	Chlorpyrifos µg/L	Total Coliform MPN/100 mL	Fecal Coliform MPN/100 mL	Enterococcus MPN/100 mL
4A	6/14/05	9:25	nd	nd	791	nd	nd	nd	nd	nd	nd	240,000	24,000	160,000
12A	6/15/05	8:40	nd	nd	794	nd	nd	nd	nd	nd	nd	130,000	230	800
14A	6/14/05	8:35	nd	nd	871	nd	nd	nd	0.026	nd	nd	240,000	170	80
39	6/14/05	10:30	nd	nd	461	nd	nd	nd	0.027	nd	nd	30,000	nd	500
57	6/15/05	9:15	nd	nd	521	nd	nd	nd	nd	0.11	nd	30,000	230	800
ANALYTICAL REPORTING LIMITS			0.5	5	10.0	0.005	0.005	0.005	0.020	0.05	0.05	20	20	20
ACTION LEVELS			1.0	15.0	-*	CTR	CTR	CTR	CTR	0.50	0.50	50,000	20,000	10,000

Notes

Red Bold Type = Values that exceed action levels

nd = Not detected

CTR = California Toxics Rule (based on hardness)

*= Total hardness is not considered a pollutant (see Section 3.4 for details), and thus has no established action level for the purposes of the dry weather monitoring. Total hardness is measured because the CTR action levels for metals are dependant on the total hardness value of the water sample. Total hardness measurements are thus required to calculate action levels for metals.

Table 8.4
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
1	7/6/2005	Storm Water Hotline	Owner of Yum Yum Donut	7550 El Cajon Blvd, La Mesa	Grease trap over flowing	Verify complaint and contact County Department of Health	7/7/05 County Department of Health Bao-An Huynh went out to the site to investigate. Grease trap was maintained morning of 7/8/05. City inspected site on 7/8/05 and requested grease trap maintenance documentation. Grease trap maintenance document provided on 7/22/05.
2	7/8/2005	Storm Water Hotline	Todd Cooper Manager of Accurate Carpet	7200 Baldrich, La Mesa	Carpet cleaning wastewater discharge onto street	Verify complaint	7/8/05 MT visited site to verify complaint. No active discharge was noted but staining was noted. MT provided tri-fold brochure for pollution prevention. MT contacted all parties involved and discussed storm water pollution prevention.
3	7/18/2005	Drive By, Malik Tamimi	John Paraiso, Auto Authority	7675 University Avenue, La Mesa	Pressure washing/car washing	Verify complaint	7/18/05 MT visited site and took pictures. Notice of Violation mailed to John requesting BMPs to be implemented. 7/20/05 MT met with Paraiso. 7/25/05 and 8/03/05 MT receives letters indicating type of BMP to be implemented. No further action.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
4	7/21/2005	Anonymous Call	Dave Masanes	3731 Harris Street	Tracking Sediment	Verify Complaint	7/21/05 MT verified complaint and noted sediment on street. MT issues NOV. 8/2/05 MT verified site is cleaned, no tracking and entrance/exit stabilization implemented. No further action.
5	7/22/2005	Don Palmer	Erickson Hall Construction, Helix High School	Off of Yale	Tracking Sediment from Construction Site	Verify Complaint	7/22/05 MT drove to location and noted minor tracking. No construction workers available to discuss BMPs. MT meets contractor on 8/27/05 and issued NOV on 7/28/05 with recommended corrective actions. 8/2/05 MT verified implementation of corrective actions. Corrective Actions implemented no further action.
6	7/26/2005	David Laslo	Madruga Sandblasting	Dallas and Jackson	Sandblasting Activities	Verify Complaint	7/26/05 MT verified complaint. Sandblasting observed but no non-storm water discharge. Urban Runoff Tri-fold educational material provided to Madruga Sandblasting Company.
7	8/1/2005	John Hill (Public Works)	Christina Perry	8444 Midland Street	Sediment and some cement slurry along curb.	Verify Complaint	8/1/05 MT verified complaint. Some sediment and cement slurry noted. NOV issued and sent with photographs to Christina recommending immediate cleanup of debris. Tri-fold and San Diego River Watershed Fact Sheet also sent.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
8	8/3/2005	City of La Mesa	Step Stone Realty, Jason Dick	El Cajon Blvd and Baltimore Drive (Crossroads Mall)	Sewer Overflow	Verify Complaint	8/3/05 MT verify complaint, request Public Works to block storm drain, contacted property management, closed bathrooms at business. MT issued NOV to Property Management Company. Property Management contacted plumber and pressure washing company to clean up. MT contacted County and RWQCB within 24 hours and prepared 5-Day Written Report. MT verified cleanup on 8/15/05 of the storm water conveyance system
9	8/8/2005	Steve Barns	Danny, New Image Construction	4853 Beaumont Drive	Sediment Tracked on Street	Verify Complaint	8/8/05 MT verified complaint. Sediment from tracking was pressure washed off the road and discharged along the earthen channel. No threat to storm water was noted. Tri-fold brochure on urban runoff was provided and recommendations to dry sweep were given. No further action.
10	8/9/2005	Storm Water Hotline	Michael Madruga	4792 Garfield Street	Neighbor complained that resident may drain swimming pool to storm drain. Pool was home to wild ducks and included wastewater.	Contact Homeowner	8/9/05 MT contacted Michael Madruga to inform him that he can't discharge wastewater into the street. It either needs to go into the sewer system or infiltrate into the lawn.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
11	8/9/2005	City of La Mesa	Jerry Harden	Vons' Parking Lot off of Allison Ave in La Mesa. Violator: 1709 112th Street, Tacoma, WA	Washing bus in Parking Lot No BMPs	Verify Complaint	8/9/05 MT verified complaint, stops washing activities and issues Notice of Violation.
12	8/9/2005	City of La Mesa	Mike DiMartino	Wellesley/Baltimore Drive	Mobile Business, Car Washing No BMPs	Issue NOV	8/9/05 SM issued NOV and stops car washing activities until BMPs can be implemented
13	8/11/2005	City of La Mesa	SDG&E	Jackson Drive/Grossmont Blvd	Cold Patch left on Street	Verbal Notice	8/11/05 HH gave verbal notice to use BMPs including covering cold patch pile.
14	8/11/2005	Telephone Call to Public Works	Fortune Lane	9435 Fortune Lane	Standing water accumulated in drainage ditch	Clean Ditch	Work Order 16733: Cleaned ditch, no further actions
15	8/15/2005	City of La Mesa	Scott Harvath	5137 Guava Ave	Stockpile of Gravel on driveway	Verify Complaint	8/15/05 MT gave verbal notice to remove gravel or cover/contain. 8/23/05 MT contacted Scott to further discuss removal of gravel and provide verbal warning. 8/25/05 checked for stockpile, still in driveway. Covered/contained, no further action.
16	8/16/2005	City of La Mesa	Rick Nichols	4319 Date Ave	Sediment Tracking	Verify Complaint	8/16/05 MT gave verbal notice to dry sweep the tracked sediment and ensure entrance/exit stabilization.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
17	8/18/2005	Drive By Malik Tamimi	Russ Steffieri	Orien Street (Hilltop Project)	Sediment Tracking	Verify Complaint	8/18/05 Verbal Warning to clean up and establish entrance/exit stabilization. 8/23/05 Entrance/Exit Stabilization implemented.
18	8/18/2005	City of La Mesa Hamed Hashemian	Chris McRae (Helix Water District)	Commercial Street	Sediment on Street from Trenching Activities	Verify Complaint	8/18/05 Verbal Warning. MT visited site on 8/19/05 and recommended additional sweeping. MT visited site on 8/22/05 and recommended that sweeper come out in evenings as well to ensure entire road footprint is swept. 8/23/05 DL contacted James Tamasulo at Helix to ensure that they were sweeping street.
19	8/18/2005	Hoban Property Management (Denise)	Resident	3742 Harris Street	Pipe Discharging Water Onto Street	Verify Complaint	8/19/05 MT drove out to site and verified address. MT looked up address/owner and attempted to contact, but there was no response. 8/30/05 MT sends letter.
20	8/18/2005	City of La Mesa	Hoban Property Management	3401 Harris Street	Over-irrigation	Inform Property Management Company to Stop Over-irrigation	8/18/05 MT notified Denise about minimizing over-irrigation.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
21	8/18/2005	Stormwater Hotline, (Cynthia Bonsignore)	Henry's Market	4630 Palm Avenue	Discharge of Wastewater and Bad Smell	Verify Complaint	8/18/05 MT verified complaint and talked to store director and told him to clean loading dock area. 8/19/05 MT revisited site to determine source of wastewater on to street. 8/22/05 MT request that sump pump be turned off. 8/23/05 MT met with Mark to discuss having wastewater in vault pumped out and disposed of in sewer system.
22	8/18/2005	City of La Mesa (Hamed Hashemian)	Talon Auto Adjuster (John)	8163 Commercial Street	No Entrance/Exit Stabilization	Verify Complaint	8/18/05 MT contacted Talon Auto Adjuster requesting stabilized entrance/exit. 8/25/05 faxed entrance/exit stabilization fact sheet.
23	8/19/2005	City of La Mesa (Malik Tamimi)	Dreamscape Landscape	Lemon & Palm	Discharge of Sediment Water onto Curb	Stop Discharge/Cleanup	8/19/05 MT issued NOV and stop work until BMPs implemented
24	8/19/2005	City of La Mesa (Malik Tamimi)	Basile Construction (Steve Moreno)	Murray and Eastridge	Discharge of water from water truck	Stop Discharge and replace water truck	8/19/05 MT issued NOV

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
25	8/19/2005	City of La Mesa (Malik Tamimi)	La Mesa First United Methodist Church (Allen Scott)	4690 Palm Ave	Illicit Connection	Stop Connection	8/19/05 NOV Issued and Stop Connection and Connect to Sewer. 8/24/05 MT contacted by Robin at Church to inform that the plumber came out and checked the connection. Sink is no longer connected to French drain. Connection to sewer is being researched.
26	8/19/2005	City of La Mesa (Malik Tamimi)	Business Owner	8181 Commercial Street	Stockpile with out cover/containment	Cover Stockpile	8/19/05 MT verified later in day that soil stockpile was covered.
27	8/19/2005	Telephone Call to Public Works	La Mesa Blvd, Private Property	8428 La Mesa Blvd	Illegal Discharge	Verify Complain	Work Order 16734: Stopped owner of draining ditch, no further actions
28	8/23/2005	Storm Water Hotline (Cynthia Basinore)	Henry's Market/Namrood Cleaning Services	4630 Palm Ave	Wastewater from waxing the inside of the store is dumped onto the curb	Verify Complaint	8/23/05 MT issued NOV and requested cleanup. 8/24/05 MT verified cleanup. Additional cleanup requested. 8/25/05 MT inspects Henry's for other discharges.
29	8/23/2005	City of La Mesa (Malik Tamimi)	Enterprise Home Corp (Tony)	Date Street	No Complete Perimeter Protection	Request Perimeter Protection Implemented at Construction Site	8/23/05 DL contacted Tony and gives verbal warning to provide perimeter protection.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
30	8/24/2005	City of La Mesa (Scott M.)	West Coast Detail (Robert Kane II)	Jackson/Grossmont Blvd.	Illegal Discharge during car detailing	Issue NOV	8/24/05 SM issued NOV and stopped work until BMPs implemented
31	8/25/2005	City of La Mesa (Malik Tamimi)	Coast Restaurant Supply (Rafael)	8120 Commercial Street	Illegal Discharge (washing down parking lot)	Issue NOV	8/25/05 MT stopped business from hosing down parking lot and issued NOV. Educational material provided.
32	8/25/2005	City of La Mesa (Malik Tamimi)	Formac (Clark Williams)	8161 Commercial Street	Illegal Discharge (washing down work area)	Issue NOV	8/25/05 MT issued NOV and provided educational material.
33	8/29/2005	Anonymous	5190 Marlen Way (John)	5190 Marlen Way	Discharge of Water	Contact Resident	8/29/05 MT contacted resident (John) to discuss BMPs and not discharging water from driveway. There was no evidence of water.
34	8/29/2005	Carrine	4566 Nebo	4566 Nebo	Discharge of Water on to sidewalk	Discuss Problem with Carrine	8/29/05 MT discussed with Carrine that water coming off the property is groundwater. No further action.
35	8/29/2005	Telephone Call to Public Works	King Street, Private Property	4015 King Street	Drains Smell	Verify Complaint	Work Order 16735: Private sewer, no storm drain
36	8/30/2005	Dorothy Pavlavic	Lorraine Hanley	4355 Yale Avenue	Discharge pool water with white residue	Verify Complaint	8/30/05 TF verified complaint and issued NOV.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
37	8/31/2005	City of La Mesa (Malik Tamimi)	Berg Construction General Contractor	9395 Hilmer	White residual cement slurry on curb and some sediment	Clean Curb	8/31/05 MT gave verbal warning to cleanup curb.
38	8/31/2005	City of La Mesa (Malik Tamimi)	Scott	6351 Falmouth	Erosion Control/BMPs	Implement Effective BMPs for Erosion Control	8/31/05 MT gave verbal warning to implement effective erosion control BMPs.
39	9/1/2005	City of La Mesa (Public Works)	Scott Favero (Pete's Place)	8330 La Mesa Blvd.	Washing buckets in back of business	Verify Complaint	9/1/05 MT gave verbal warning not to clean or discharge water in the back of the business. Educational material on watersheds/urban runoff pollution prevention provided.
40	9/2/2005	Telephone Call to Public Works	Fortune Lane, Private Property	9485 Fortune Lane	Drainage ditch filled with debris	Verify complaint	Work Order 16736: Private ditch, no further actions
41	9/6/2005	Teresa (Storm Water Hotline)	Apartment Complex Across 8442 La Mesa Blvd	Across 8442 La Mesa Blvd	Non-Storm Water Discharge	Verify Complaint	9/6/05 TF gave verbal warning to stop discharge of water and redirect to grass lawn.
42	9/7/2005	City of La Mesa (Engineering JF)	Resident, 9375 Manor Drive	9375 Manor Drive	Non-Storm Water Discharge	Stop Discharge	9/7/05 JF investigated non-storm water discharge. Origin from over-irrigation/broken sprinkler. Sprinkler system turned off.
43	9/13/2005	Janice (Storm Water Hotline)	Neighbor	7878 Normal Street	Hosing Down Driveway	Verify Complaint	9/14/05 MT contacted Janice for details. 9/15/05 TF verified hosing of driveway. No evidence of hosing observed.
44	9/13/2005	Telephone Call to Public Works	Williamsburg Lane	4647 Williamsburg Lane	Storm drains clogged with leaves	Verify complaint	Work Order 16737: Vacuumed out inlets

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
45	9/15/2005	Storm Water Hotline (Cynthia Basinore)	Henry's Market	4630 Palm Ave	Water pooling on Finely	Verify Complaint	9/15/05 MT contacted Mark at Henry's. MT is informed that it was water from watering plants. Janitor vacuumed up wastewater. No further action
46	9/15/2005	Telephone Call to Public Works	Lambda Lane	5711 Lambda Lane	Illegal Discharge	Verify complaint	Work Order 16738: Discharge was from a pool draining; verified pool water met city standards for draining, no further action
47	9/20/2005	Telephone Call to Public Works	Harris Street	3754 Harris Street	Water coming up from street	Verify complaint	Work Order 16739: Ground water known for years
48	9/29/2005	Storm Water Hotline (Laura)	James Gould, Finest City Detail and Reconditioning Lemon Ave/Spring Street	Lemon Ave/Spring Street	Car Detailing with No BMPs	Verify Complaint	9/29/05 MT verified complaint and issued an NOV. MT provides educational material and stops all activities. No further action.
49	9/29/2005	Storm Water Hotline (Paula)	Tropic Shield Mobile Detailing at Sunland RV Resort, Alvarado	Alvarado	Question on Detailing Requirements	Contact Property Management to educate on City's requirements	9/29/05 MT contacted Bob, manager of the Park to inform him on City's requirements.
50	9/29/2005	City of La Mesa (Hamed)	El Torito Restaurant	Baltimore Drive	Stockpile of material not covered nor contained	Cover Stockpile	9/30/05 MT verified that BMPs implemented.
51	9/30/2005	Telephone Call to Public Works	Dale Avenue	4397 Dale Avenue	Water running constantly down street	Verify complaint	Work Order 16740: Around water no problem, no further actions
52	9/30/2005	Telephone Call to Public Works	Ohio Place	7460 Ohio Place	Sewer line is unearthing and lifting sidewalk	Verify complaint	Work Order 16741: Old abandoned storm drain pipe has been filled
53	10/1/2005	Letter to City	Emerald Oil and Gas Station	5600 Baltimore Dr.	Fundraiser Car Wash Activities with no BMPs	Implement BMPs	10/13/05 MT sent out letter to implement BMPs during fundraisers

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
54	10/3/2005	City of La Mesa Storm Water Hotline	Porter Hill Road (NE)	Porter Hill Road	Broken Gravel Bags	Verify Complaint	10/4/05 MT verified complaint and found that gravel bags had been removed. No further action.
55	10/3/2005	City of La Mesa Storm Water Hotline	7875 Grape Street	7875 Grape Street	Draining Swimming Pool Water	Verify Complaint	10/04/05 MT verified complaint. No signs of water discharge along street. MT mailed out educational material to home owner (Think Blue Fact Sheet), urban runoff tri-fold, and San Diego Bay Watershed.
56	10/10/2005	City of La Mesa Storm Water Website	Daniel Scott, 8539 Alpine Avenue	8539 Alpine Avenue	Oil leak from vehicle onto ground	Verify Complaint	10/10/05 MT verified complaint, talked to owner, and issued NOV with request for clean up by 10/14/05. MT verified cleanup.
57	10/13/2005	City Council	Jim Moran	9589 Alto Drive	Unprotected Slopes and Debris	Verify Complaint	10/13/05 Sent out written Notice to Comply with request to address issues by 10/27/05.
58	10/14/2005	City Council/Tony Winney	5190 Marlen Way	5190 Marlen Way	Oil Staining	Verify Complaint	10/17/05 Visited site did not note any new problem.
59	10/17/2005	Telephone Call to Public Works	Jr. High Drive	7777 Jr. High Drive	Drainage ditch blocked by rocks	Verify complaint	Work Order 16742: Cleared ditch
60	10/20/2005	City of La Mesa, Dave Laslo	Raul Franco Grossmont Hospital	5555 Grossmont Hospital	No BMP implementation, Sediment Tracking/Storm Drain Inlet	Issue NOV	10/20/05 DL issued NOV and recommended BMPs and Cleanup. 10/24/05 DL verified cleanup. No further action.
61	10/24/2005	Storm Water Hotline	Theo Hanson, 6th Sense Studio	8161 Commercial Street	Discharge of gypsum onto conveyance system	Verify Complaint/Cleanup	10/24/05 HH investigated sites and took photos. 10/25/05 MT issued NOV and requested cleanup.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
62	10/24/2005	Telephone Call to Public Works	Merritt Blvd	4321 Merritt Blvd	Storm drain needs cleaning	Verify complaint	Work Order 16743: Vacuumed out debris
63	10/24/2005	Telephone Call to Public Works	Charles St.	3981 Charles St.	Blocked storm drain	Verify complaint	Work Order 16744: Private backyard drains; no further actions
64	10/25/2005	Telephone Call to Public Works	Orien Avenue	7510 Orien Avenue	Inlet blocked by leaves	Verify complaint	Work Order 16745: Cleaned inlet
65	10/25/2005	Telephone Call to Public Works	Spring Street	4215 Spring Street	Blocked drainage ditch	Verify complaint	Work Order 16746: Private open ditch, no further actions
66	11/1/2005	Storm Water Hotline	Harry Shamoo/Palm Springs Liquor	4301 Palm Ave	Washing parking lot with no BMPs	Verify Complaint	11/1/05 MT verified complaint and has owner vacuum wastewater in parking lot. Runoff did not enter any storm drain.
67	11/2/2005	Telephone Call to Public Works	Merritt Blvd	4321 Merritt Blvd	Clogged storm drain	Verify complaint, clean inlet	Work Order 16747: Cleaned inlet
68	11/8/2005	City Manager	Glen/Lemon Ave	Glen/Lemon Ave	Water pooling along Lemon/Glen	Verify Complaint	11/10/05 MT received complaint. Some over-irrigation water observed but not significant. No further action.
69	11/15/2005	Telephone Call to Public Works	Lemon Avenue	9236 Lemon Avenue	Storm drain clogged with debris	Verify complaint, clean channel	Work Order 16748: Cleaned channel

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
70	11/16/2005	Storm Water Hotline	5440 Baltimore Drive #176	5440 Baltimore Drive #176	Washing vehicle/oily water	Verify Complaint	11/16/05 MT verified complaint and contacted Strawberry Hills Management. Spoke with property management company PPM1 Cindi. Next week's board meeting will present storm water pollution prevention information.
71	11/21/2005	Telephone Call to Public Works	Saranac Avenue	7575 Saranac Avenue	Illegal discharge	Verify complaint	Work Order 16749: Swimming pool being drained; verified pool water met standards; no further actions
72	11/21/2005	Telephone Call to Public Works	Alpine Ave.	8642 Alpine Ave.	Request site visit to 8642 Alpine to measure for possible pre-fab grade inlet.	Verify complaint	Work Order 16750: None needed
73	11/23/2005	City of La Mesa	Oleg Sherif 6062 Lake Murray Blvd #102-105	6062 Lake Murray Blvd #102-105	Auto Detailing without BMPs	Issue NOV	11/22/05 Allen Edwards noted auto detailing without BMPs. Photographs taken. 11/23/05 MT contacted owner and issued NOV for failure to implement BMPs.
74	12/1/2005	Storm Water Hotline, Greg Ashlee	Jorge Bedolla/Mark Villanuevo	8180 Commercial Street	Auto repair activities on the exterior of building, no non-storm water discharge.	Contact Owner	12/1/05 MT contacted owner informing him that they could not do any outdoor activities associated with auto repair. Future complaints would result in a Notice of Violation.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
75	12/5/2005	Storm Water Hotline, Anonymous	Virginia Powell	4660 Harbinson Ave	Washing concrete debris into the street	Verify Complaint	12/6/05 MT verified complaint, briefly spoke with homeowner, and issued NOV and requested debris be cleaned up. Educational material sent out with NOV. 12/13/05 Virginia contacted City specifying that the site was cleaned up and that she had read the educational material sent by the City.
76	12/13/2005	Storm Water Hotline, Public Works	La Mesa Colony Subdivision	5696 Lake Murray Blvd	Discharge Onto the Street, Sprinkler System	Verify Complaint	12/13/05 Discharge observed, facilities manager dispatched crew to stop discharge. Public Works visited the site.
77	12/13/2005	City Website	Cynthia Patterson	5540 Wake Street	Construction debris along slope	Verify Complaint	12/14/05 AE issued NOV to have debris removed.
78	12/14/2005	Telephone Call to Public Works	Briercrest Drive	9250 Briercrest Drive	Sewer odor	Verify complaint, identify source	Work Order 16751: Sewer lateral problem, owner notified, no further actions
79	12/15/2005	Telephone Call to Public Works	Rolando Knolls	6800 Rolando Knolls	Clogged storm drain	Verify complaint	Work Order 16752: Private drain area, no channel; no further actions
80	12/21/2005	Telephone Call to Public Works	Baltimore Drive	Baltimore Drive	Blocked channel	Verify complaint, clean channel	Work Order 16753: Cleaned channel, removed debris
81	1/12/2006	Drive By	Christopher Gooden contractor, 5400 Aztec Drive	12020 Lemon Crest Drive, Lakeside, CA 92040	Discharging sediment into storm drain from construction activities	Issue Notice of Violation	1/12/06 MT issued NOV and request sediment along curb cleaned. Provided tri-fold preventing urban runoff.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
82	1/12/2006	Storm Water Hotline, Frank Vitale	Empire Detail, David Duncombe, 6736 BelleGlade Ave, San Diego 92119	7914 Morocco Drive	Auto detailing without stopping discharge	Issue Notice of Violation	1/12/06 MT attempted to issue NOV; however, owner would not provide information. Police Department contacted to locate owner. NOV was issued and educational material mailed.
83	1/12/2006	Hotline	Bob Smith	5920 Bob Street	Sewage in Driveway	Verify Complaint	1/12/06 MT verified complaint and contacted homeowner to have toilet paper/debris cleaned.
84	1/30/2006	Website	Merle Rose	7543 Seneca Place	Concrete residue discharge along gutter	Verify Complaint	1/31/05 MT issued NOV and requested cleanup by 2/3/06
85	1/31/2006	Hotline	Heidi Slade	5480 Heidi Street	Pressure washing motorcycles in driveway	Verify Complaint	1/31/06 MT did not observe discharge; however, provided written notice and educational material. 2/2/06 David Slade contacted MT to discuss issue.
86	2/2/2006	Hotline	Andrea	Date Street	Oil on road from construction equipment	Verify Complaint	2/2/06 DL met with construction site superintendent to cleanup up waste.
87	2/13/2006	Telephone Call to Public Works	Porter Hill Road	5010 Porter Hill Road	Broken sandbags around storm drain inlet	Remove sandbags	Work Order 16754: Remove contractor's bags; no further actions
88	2/16/2006	Hotline	Nancy Beell	4909 Guava Ave	Sewage Overflow	Verify Complaint	2/16/06 MT verified complaint, emergency dispatched. No sewage into storm drain. Plumber contacted and sewer line was unblocked. 2/17/06 owner to have residuals cleaned up.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
89	2/17/2006	Hotline	SBC Global (contractors)	Lemon Ave	Underground work/stockpile no BMPs	Verify Complaint	2/17/06 MT verified complaint and requested BMPs to address stockpile of soil. MT verified that BMPs implemented.
90	2/22/2006	Dan Odell	City of La Mesa Fire Station	Allison Avenue	Concrete waste dumped on property with out washout	Verbal Warning to Cleanup and Create Concrete Washout	2/22/06 Matt Souttere (PM) to gave verbal warning to cleanup and create concrete washout.
91	2/27/2006	Kathy McKinney	Bob Smith (rental) 5920 Bob Street	5920 Bob Street	Sewage Discharge onto driveway	NOV/Cleanup	2/27/06 MT issued NOV to owner and resident. MT contacted County DEH to report problem.
92	2/27/2006	Telephone Call to Public Works	Olive Avenue	4254 Olive Avenue	Check storm drain for clearance before rain	Verify complaint	Work Order 16755: Checked drain, it was ok—no further actions
93	3/1/2006	Telephone Call to Public Works	Milden St.	9550 Milden St.	Broken storm drain grate	Verify complaint, replace grate	Work Order 16756: Replaced grate
94	3/13/2006	Dennis Geurin	Michael Ironfield & Martie Knowles - 6980 Wisconsin Ave	6980 Wisconsin Ave	No BMP Implementation/sediment tracking	Verify Complaint	3/13/06 MT issued NOV and provided educational material.
95	3/13/2006	Telephone Call to Public Works	Adams Avenue, Private Property	6963 Adams Avenue	Drainage issues	Verify complaint	Work Order 16757: Private matter, fence blocking flow; no further actions
96	3/14/2006	Storm Water Hotline	Bob Hauck (PVCC Inc. 6363 El Cajon Blvd. #206)	4700 Spring Street	Pressure washing no BMPs	Verify Complaint	3/14/06 MT verified complaint and issued NOV/ cease and desist. BMPs were recommended.
97	3/16/2006	Storm Water Hotline	William Glasson, 4390 Woodland Drive, La Mesa	4390 Woodland Drive, La Mesa	Slopes not protected	Verify Complaint	3/16/06 MT issued storm water pollution prevention letter requesting BMPs to protect landscape slope from erosion.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
98	3/16/2006	Storm Water Hotline	Michael McQuilken, 9240 Southern Road, La Mesa	9240 Southern Road, La Mesa	Soil stockpile with out cover/containment	Verify Complaint	3/16/06 MT contacted Michael M. and lefts voice message to cover and contain soil stockpiles.
99	3/16/2006	Storm Water Hotline	Resident/Woodland/Merritt	Woodland/Merritt	Residential Construction Project/sediment	Verify Complaint	3/16/06 MT verified complaint and observed fiber rolls placed along slope to prevent erosion. No further action.
100	3/20/2006	Storm Water Hotline	Strawberry Hills HOA, Paul Peterson	5430 Baltimore Drive	Washing Pool Filter	Prepare Letter to HOA	3/20/06 MT discussed City's requirements for Pool Filter Cleaning and sent letter with educational material to HOA
101	3/23/2006	Telephone Call to Public Works	Waite Drive	7212 Waite Drive	Storm drain sandbags have accumulated debris	Replace bags	Work Order 16758: Contractor bags were replaced
102	3/28/2006	Telephone Call to Public Works	Lake Park Way	5540 Lake Park Way	Drainage ditch filled with debris	Verify complaint	Work Order 16759: Cleaned debris
103	4/5/2006	Telephone Call to Public Works	Molly Woods Avenue	9175 Molly Woods Avenue	Clogged storm drain	Verify complaint	Work Order 16760: Cleaned small drain area
104	4/5/2006	Telephone Call to Public Works	Larson Way	8671 Larson Way	Clogged drainage culvert	Verify complaint	Work Order 16761: Private brow ditch; no further action
105	4/11/2006	Telephone Call to Public Works	Waite Drive	Waite Drive	Constant water leak under Waite St. overpass	Verify complaint	Work Order 16762: Ground water; no further action
106	4/13/2006	City Hall	Helene Bell, Caltrans	Murray Drive/125	Trash/Debris	Prepare Letter	4/13/06 MT prepared letter to Caltrans requesting cleanup of trash and debris.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
107	4/13/2006	City Hall	Hanken, Cono, Assad	5550 Baltimore Drive	Commercial Business, Car Wash Activities	Issue NOV	4/13/06 SM issued NOV for illegal discharge associated with car washing. Proper BMPs recommended.
108	4/19/2006	Storm Water Hotline	Robert Parker, 6285 Cresthaven Drive	6285 Cresthaven Drive	Erosion/Front Yard	Verify Complaint	4/20/06 MT verified complaints and sent letter to comply.
109	4/20/2006	Telephone Call to Public Works	Jefferson Avenue	8750 Jefferson Avenue	Clear drainage ditch	Clean ditch	Work Order 16763: Cleaned debris from ditch
110	4/24/2006	Storm Water Hotline	Tony Lopez, La Mesa Villas	8862 La Mesa Blvd #12	Illegal Discharge	Verify Complaint	4/24/06 DL verified complaint and issued NOV and cleanup requirement of residue within 48 hours. 4/25/06 DL verified that cleanup/site was cleaned.
111	4/24/2006	Storm Water Hotline	8015 El Paso	8015 El Paso	Pouring Liquid on Grass	Verify Complaint	4/24/06 MT verifies complaint. Residue on grass. No discharge onto street. Recommended contacting County Department of Health.
112	4/24/2006	Storm Water Hotline	Apore Street/Serramar	3981 Apore	Slime/Green Water	Verify Complaint	4/24/06 MT verified complaint. Drainage water creating algae. MT to contact Stuart M. to address over-irrigation.
113	4/24/2006	Storm Water Hotline	(Morlett) Rolando Knolls	6750 Rolando Knolls	Draining Pool/Killing Vegetation	Verify Complaint	4/25/06 MT verified complaint and noted distressed vegetation. MT sent letter to resident with discharge requirements on May 1, 2006.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
114	4/25/2006	Storm Water Hotline	Jefferey Chambless, 7221 Cornell	7221 Cornell	Draining Pool	Verify Complaint	4/25/06 MT contacted owner to ensure that water was tested before being discharged. MT sent letter to resident with discharge requirements on May 1, 2006.
115	4/27/2006	City Hall	Paul Howell, 8160 Kato Street	8160 Kato Street	Oil Stains on Drive Way	Verify Complaint	4/27/06 MT issued NOV for excessive oil stain on driveway. Immediate cleanup required.
116	4/27/2006	City of San Diego	Norma De Leon	6761 Vigo Drive	Illegal Discharge	Send Educational Material	4/27/06 City of San Diego issued NOV for illegal discharge to their MS4. MT sent out educational material.
117	4/28/2006	Storm Water Hotline	Thomas Tjossem	9125 Southern Road	Illegal Discharge	Verify Complaint	4/28/06 MT verified complaint and contacted owner of home. 5/1/06 Thomas (Homeowner) contacted MT to let him know that it was an illegal discharge not associated with their home.
118	5/2/2006	Storm Water Hotline	Rubi Gaona, Pick Up Stixs	8025 Fletcher Parkway	Illegal Discharge	NOV	5/3/06 MT issued NOV for washing kitchen mats outside. BMP plan and training requested.
119	5/4/2006	Telephone Call to Public Works	Harris Street	Harris Street	Water pooling in cul-de-sac	Verify complaint	Work Order 16764: Cleaned mud from cul-de-sac
120	5/8/2006	Walkin City Hall	Mishler Residence, 3840 Carbo Court	3840 Carbo Court	Erosion Control	Written Warning	5/8/06 MT sent written warning to ensure erosion control. BMP information/brochure mailed out.

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
121	5/9/2006	City Personnel	Dennis Basto, All Drains Plumbing, 9035 Prospect Ave #126, Santee, CA 92071	Vons Parking Lot, Allison Avenue	Illegal Discharge	NOV	5/9/06 MT wrote NOV, and had violator vacuum wastewater before entering storm drain inlet. MT provided educational outreach material.
122	5/12/2006	City Personnel	Nachos Taco Shop	7589 University Ave	Illegal Discharge	NOV	5/12/06 MT verified complaint and issued NOV.
123	5/12/2006	Storm Water Hotline	Beck Residence	6041 Amarillo Ave	Illegal Discharge	NOV	5/12/06 MT verified complaint and issued NOV for illegal discharge.
124	5/22/2006	Storm Water Hotline	Edgardo Masanes	3729-31 Harris Ave	Tracking Sediment onto Street	Cleanup Sediment	5/22/06 MT contacted Edgardo and issued a verbal warning to cleaning sediment by 5/24/06.
125	5/22/2006	City Personnel	Central Congregational Church	8360 Lemon Ave	Construction Activities	Contact Church Reiterate Storm Water Ordinance Requirement	5/22/06 MT contacted and left message at church to ensure BMPs are utilized during construction activities.
126	5/23/2006	Storm Water Hotline	Henry's Market	Palm Ave	Discharge Wastewater	Contact Manager	5/23/06 MT contacted manager and reminded facility they cannot discharge water from loading dock onto the street. Discharge did not enter storm drain.
127	5/30/2006	Telephone Call to Public Works	Toni Lane	Toni Lane	Report of illegal discharge from construction workers	Verify complaint	Work Order 16765: Found no problem, reported to Malik; no further action
128	6/7/2006	Telephone Call to Public Works	68th Street	4453 68th Street	Storm drain grate was removed and replaced inaccurately	Replace Grate	Work Order 16766: Replaced Grate

Table 8.4 (Continued)
Summary of Documented Public Complaints

No.	Date Received	Complaint Origin	Responsible Party/Location	Location: Address	Issue/Problem	Action Needed	Response to caller-Date, Time
129	6/14/2006	Storm Water Hotline	Dan (Daniels Painting)	8047 El Capitan	Dried paint discharge from pressure washing house	Verify Complaint	6/14/06 MT verified complaint and contacted contractor and requested immediate cleanup. 6/15/06 MT verified clean up.
130	6/15/2006	Storm Water Hotline	6130 Sarita Street	6130 Sarita Street	Discharge Wastewater	Verify Complaint	6/15/06 MT verified complaint and did not note residue from wastewater discharge. No further action
131	6/19/2006	Telephone Call to Public Works	Blackton Dr.	7210 Blackton Dr.	Blocked storm drain	Verify complaint	Work Order 16767: Private drain pipe; no further actions
132	6/23/2006	Storm Water Hotline	Sarita Street	Sarita Street Cul-de-Sac	Discharge of groundwater	Verify Complaint	6/23/06 MT contacted Richard Bruce to discuss situation/left voice message. No further action.
133	6/28/2006	Telephone Call to Public Works	Bruno Place	5642 Bruno Place	Drainage ditch full of weeds and debris	Verify complaint; clean ditch	Work Order 16768: Cleaned debris and repaired cracks

9 EDUCATION

Education is a vital component of a successful NPDES storm water program. The City provides educational materials and opportunities to its staff, industrial and commercial businesses, construction sites, and residents. By doing so, the City enables individuals throughout the City to become active participants in storm water pollution prevention. The City's program aims to measurably increase the knowledge of City staff, businesses, and the general public regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for specific activities. Ideally, the increase in knowledge will result in changes to the behavior of these individuals throughout the City, thereby reducing pollutant discharges to MS4s and the environment. The City continues to consistently improve and evaluate its methods for educating its staff, businesses, and residents. The goal of educating various individuals throughout the City is to promote staff, business, and citizen involvement in eliminating storm water pollution caused by common activities that can contribute pollutants to urban runoff.

MUNICIPAL

City personnel are an effective link between the City government and its citizens; educating City personnel is therefore an extremely important aspect of the storm water education program. City personnel often spend a large amount of their time in the field, where they have the potential to come into contact with citizens who may be interested in learning more about pollution prevention. City employees who reside in La Mesa also have the opportunity to educate La Mesa citizens with whom they come into contact outside of work hours. Since this type of transfer of information is a significant way of educating the public, educational opportunities and materials are made easily available to City staff.

On December 9, 2005, the City held a training session designed specifically for municipal employees. The training included NPDES education regarding prioritization of construction sites, BMP implementation, the General Construction Permit, and SUSMP information. Also included was information on proper BMP implementation for activities such as spill containment, job site protection, fertilizer application, equipment cleaning, irrigation run-off, materials storage, and general storm water protection. Watershed concepts were also presented in this training.

In addition, the City conducted a total of three Construction Inspection Field Exercises for City Inspectors. These exercises were designed to be a more effective means of educating site inspectors through field experience. This type of training ensures that inspectors, mostly new inspectors, are conducting inspections effectively. In addition to the field exercises, the City also held an NPDES Storm Water Construction Site Management meeting to discuss building permits and the inspection program with City staff members.

City staff also held numerous training sessions focusing on BMPs for particular departmental activities. There was an average of one training session per month. These training sessions covered topics such as BMPs for spill containment, job site protection, fertilizer application, equipment cleaning, and general storm water BMPs. The training sessions remind Public Works employees to continue implementing BMPs at their work sites. The frequency of the training sessions increased the number of educational opportunities, and consequently, a greater number of public works employees were able to attend these sessions. Frequent training sessions are also beneficial because new employees have the opportunity to attend a training session soon after they are hired and are therefore better equipped to share correct information with the public.

The City distributed a “City of La Mesa Municipal Program Storm Water Best Management Practices Notebook” to new public works employees during this reporting period (Attachment 2.1). This handbook presented BMP fact sheets associated with routine municipal activities. Fact sheets were selected based on applicability to field programs and Public Works Operations Center maintenance activities. The intent of the notebook was to provide City staff with educational material while out in the field as well as provide a reference for future use. Managers at the municipal yard use the handbook to further explain BMPs pertinent to their individual projects to employees involved in these programs.

All new City storm water inspectors were provided with an NOV Procedural Handout (Attachment 2.4). This handout describes when and how an NOV should be issued.

During the last reporting period, the City installed an NPDES Storm Water Bulletin Board that is displayed in the City’s Engineering Department. The bulletin board is visible to all public works employees as well as visitors to the area. During this reporting period, the City continued to update and maintain the bulletin board, which covers topics such as BMPs for residents and businesses, watershed concepts, HHW, and upcoming community events, along with other useful resources. A photo of the bulletin board as well as some available materials is included as Attachment 2.5.

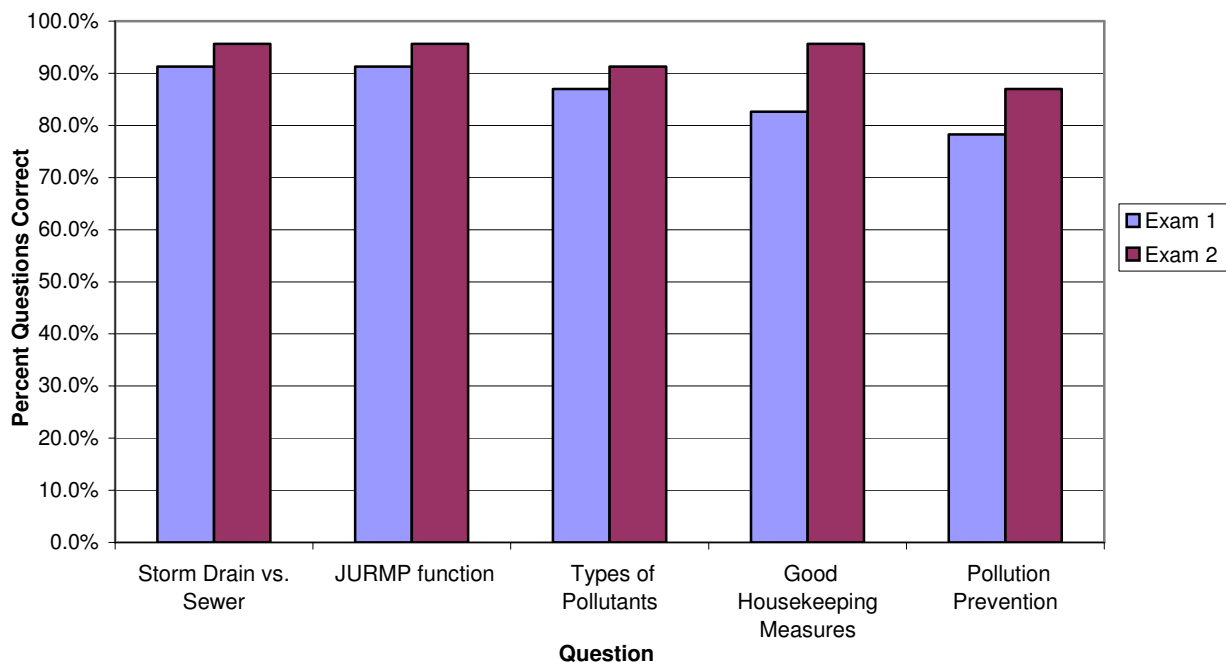
The City also continued to conduct annual inspections of high priority municipal facilities to ensure they were implementing all necessary BMPs. The City’s storm water compliance inspectors informed facility managers of the inspection findings, focusing on effective BMP implementation. Facilities with noted deficiencies in BMP implementation were usually given follow-up inspections to ensure that facility managers were working to improve their BMPs. The inspector also provided educational material to the facility manager at the end of inspections.

The City’s Environmental Specialist attended two full day training sessions hosted by the BIA. Both training sessions reviewed SWPPP information and regulations for construction activities. It is essential that the City’s Environmental Specialist attend training sessions

hosted by outside agencies to continue providing the City with the most up-to-date information regarding storm water pollution prevention activities.

The City administered an NPDES Knowledge/Awareness Assessment Test to Public Works employees (Attachment 2.6). The test is designed to assess the effectiveness of training sessions and educational outreach. The multiple choice questions covered topics such as the difference between the storm drain and sanitary sewer, the functions of a JURMP, types of pollutants, pollution prevention, and good housekeeping measures. The test has been administered a total of three times: March 2005, June 2005, and June 2006. For the purposes of this report, only data from the June 2005 (Exam 1) and June 2006 (Exam 2) tests were used to illustrate the educational advances during the 2005/2006 reporting period. For a more accurate depiction of the data, test results from only individuals who took both Exam 1 and Exam 2 were used. Below is a graphical representation of the improvement in scores of significant questions:

Graph 9.1
NPDES Knowledge/Awareness Assessment Test Scores



Overall, scores were fairly high for both Exam 1 and Exam 2. Results show that the Public Works employees who took the exam were aware of the difference between the storm drain and sewer systems, understood types of pollutants, and were aware of BMPs even before the 2005/2006 reporting period. The improvement in the scores demonstrates further success of municipal training sessions within this reporting period.

INDUSTRIAL/COMMERCIAL

Inspections of industrial and commercial facilities serve a dual purpose of enforcement of storm water regulations as well as providing an educational opportunity for business owners. During the inspection process, the inspector has the opportunity to inform business owners and managers about storm water quality. Additionally, the inspector can provide information on other available training and educational opportunities.

The City's Environmental Specialist continued to call all high priority industrial facilities in the event of a qualifying rain event to remind them to take storm water samples. The program was again successful during this reporting period. It is important that the City maintain an active role in ensuring that businesses are complying with all regulations. Such actions hold the businesses accountable for their actions, increasing the likelihood that they will comply.

A general guide for commercial and industrial business entitled "Preventing Urban Runoff Pollution" (Attachment 3.1) was distributed during many inspections and complaint investigations. This flyer explained the difference between the sanitary sewer and storm drain systems, listed BMPs, and provided contact information.

Many commercial and industrial facilities also received educational material regarding the San Diego Bay and San Diego River watersheds (Attachments 3.2 and 3.3, respectively); these fact sheets provide information about the receiving water bodies in the City and how upstream activities of industrial and commercial businesses can produce negative effects downstream

This reporting period, the City targeted automotive dealerships throughout La Mesa. They were provided with an educational letter (Attachment 4.3), watershed information specific to their location, and the "Preventing Urban Runoff Pollution" brochure (Attachment 3.1) to remind them that non-storm water discharges are prohibited. The City received two phone calls in response to the mailers with questions regarding storm water pollution and BMPs.

The City mailed 145 letters to restaurants outlining necessary BMPs for restaurant activities and inviting them to a Green Business Workshop for Restaurants (Attachment 4.1). The workshop, hosted by the City and the San Diego County Green Business Program, was held on April 17, 2006. It was the first such workshop to be held in East County. Attendees were educated about required BMPs for restaurant activities, local watersheds, and the advantages of becoming certified green businesses. Each was provided a copy of the "What's Cookin'" restaurant BMP guide, which is included as Attachment 4.2. More information about this workshop is provided in Section 4 of this Annual Report.

As mentioned in previous sections, the City continued to include storm water-specific articles in the City newsletter, the *La Mesa Focus*. The newsletter is mailed to 27,500 businesses and residents in the City quarterly, and 2,500 additional copies are made

available at various City facilities. It is also available via the City's website. This reporting period, the newsletter featured three articles with storm water specific topics. The articles, "Summer Gardens and Storm Water Pollution," "Q: What can I wash down the storm drain? A: NOTHING! Only rain should go down the storm drain," and "Don't Wash Money Down the Storm Drain," can be found as Attachments 3.5, 3.6, and 3.7, respectively. A fourth article, "Summer Storm Water Reminders," was initiated during the reporting period and published just after the reporting period in August 2006 (Attachment 3.8). The articles are specifically designed for residents, and also include topics pertinent to industrial and commercial businesses.

The City was proactive in its outreach efforts to mobile businesses in the City. As mentioned in Section 4, the activities of mobile businesses such as power washing companies and detailers pose a potential threat to storm water. The City's Environmental Specialist met individually with representatives of such businesses to discuss the potentially harmful effects of their activities. During these meetings, the City's Environmental Specialist discusses storm water pollution prevention with the business owners and provides them with educational materials such as the San Diego Bay and San Diego River watershed fact sheets. Prior to obtaining a business license, they are required to sign an affidavit to commit to proper wastewater disposal and BMP implementation.

RESIDENTIAL

Residential areas make up more than half of the City's land-use area. The City of La Mesa continues to offer educational opportunities and materials to its residents. As previously mentioned, the City published articles in the *La Mesa Focus* newsletter, which reaches many of the residents in La Mesa.

One of the NPDES training sessions was made available to residents of La Mesa as a televised event. The training included an overview of the NPDES program, pollutants of concern, water quality impacts, and BMP facts. The event reached an estimated 2,000 individuals.

The City distributed 214 letters to residents (Attachment 5.1), a shopping center (Attachment 5.2), and a school (Attachment 5.3) in neighborhoods where Dry Weather Monitoring results indicated significant levels of pollutants. A total of 212 residential households received these letters as a result of Dry Weather Monitoring Program findings and in response to public complaints. The letters outlined the types of pollutants found in their neighborhood as well as the sources of those pollutants and actions residents could take to reduce pollutant discharge.

This reporting period, two commercial businesses in La Mesa, Target and Dixieline Lumber, displayed IPM cards in the gardening department for patrons of their businesses to take home with them (Attachment 4.4). The packet of seven bound cards includes: "Gardening with Good Bugs," "Safe Use and Disposal of Pesticides," "Spiders," "Termites," "Lawn

Insects," "Snails and Slugs," and "Head Lice." These cards contain information on ways to garden in a more environmentally friendly way by using beneficial insects, avoiding pesticide use, and preventing irrigation runoff, among other topics. The IPM cards can also be downloaded from the City's website.

The City also developed and distributed a "2006 La Mesa Community Calendar" (Attachment 5.7) similar to the one created during the previous reporting period. It was distributed to approximately 56,000 residents in the City. The calendar included various storm water pollution prevention tips and facts. It also provided information about HHW events, where and how to report illegal discharges, and various storm water slogans. Production of the calendar was primarily funded by State Used Oil Block Grant Funds and Department of Conservation Beverage Container Recycling funds.

The City also continued to conduct HHW events at EDCO Station and provided door-to-door collection of hazardous waste from residents age 65 and older, as well as from disabled individuals. A total of six events were held this reporting period; a breakdown of the collected items is found as Attachment 5.5.

The City developed a "Storm Water Pollution Prevention: Pools and Spas" fact sheet available to the public during this reporting period (Attachment 5.4). This handout outlines the requirements that pool and spa water must meet to be discharged to the storm drain system and was made available at the front desk in the City's main offices. The City also distributed the "Put Toxic Waste in its Place" educational brochure (Attachment 3.4) and "Less Toxic Yard and Garden Care" (Attachment 5.8) at various community events and at the Solana Center.

This reporting period, the City participated in numerous school outreach programs such as the Watershed Stewards Project and presentations to elementary schools regarding HHW disposal. Detailed descriptions of these events are included in Section 10 of this report.

In addition to various educational brochures and handouts, the City plans to erect storm water information kiosks at three City parks: Harry Griffin Park, Briercrest Park, and La Mesita Park. These kiosks will offer educational outreach materials to park visitors. The City expects to complete the kiosks in the spring of 2007.

CONSTRUCTION

Due to the nature of construction activities, construction sites can potentially be a source of pollutants, notably sediment. The City has continued to educate construction site managers, contractors, and property owners on regulations and activity-specific BMPs. Much of the information is presented during the construction site inspections. These inspections are intended to not merely correct any deficient BMPs the inspector may find but also to convey the purpose and goals of construction storm water BMPs, thereby reducing the frequency of potential future infractions.

Construction contractors, property owners, and site managers were presented with various brochures to aid them in avoiding BMP deficiencies and subsequent violations of the General Construction Permit. Some sites were provided with the general urban runoff brochure and watershed fact sheets as well as activity-specific material including "Guide to Construction Activity" (Attachment 7.4) and the "Construction and Demolition Guide," which were distributed and made available on the City's website in both English and Spanish (Attachment 7.5).

The City also utilized the newly developed "Construction Site Inspection Procedure Sheet" (Attachment 7.1) for new storm water compliance inspectors and the "Storm Water Requirements Applicability Checklist" (Attachment 6.1) for project proponents.

In addition to educational materials, the city hosted numerous educational events for construction site managers. On September 29, 2005, four construction site representatives attended a Construction Site Management and Watersheds Workshop hosted by the City. Attendees were presented with a PowerPoint presentation detailing required BMPs for construction activities. They received the JURMP BMP Handbook for Construction Activities (Attachment 7.3), a copy of the construction inspection form, a copy of the NOV procedure sheet (Attachment 2.4), and San Diego Bay and San Diego River Watershed fact sheets (Attachments 3.2 and 3.3, respectively).

Futhermore, the City held an NPDES Storm Water Construction Site Management training for City employees directly involved with construction site management in La Mesa. The training session was held on October 28, 2005, and five employees were in attendance. The City's Environmental Specialist reviewed the inspection program and also discussed building permits.

OUTREACH MEETINGS

During this reporting period, the City's Environmental Specialist continued to actively participate in the Project Clean Water Outreach Workgroup meetings. Project Clean Water's mission is to collaborate on a regional storm water outreach and education program. One of its goals in particular is to produce new effective educational materials to be distributed throughout cities in San Diego County.

PUBLIC OUTREACH MATERIAL

During this reporting period, the City distributed a number of brochures and handouts and articles in three *La Mesa Focus* newsletters. The number of brochures and types of brochures generated or utilized during this reporting period have been described in Sections 2, 3, 4, 5, 6, and 7 and are also listed in Table 9.1 later in this section.

PRESENTATIONS

The City made presentations to several schools regarding HHW, coordinated by the Solana Center. Each school received “Put Toxic Waste in its Place” brochures (Attachment 3.4), “Less Toxic Yard and Garden Care” (Attachment 5.8), HHW sponges, and seed paper bookmarks. The following schools were visited:

- Avocado School on 10/31/06 with 136 in attendance
- La Mesa Dale Elementary on 2/16/2006 with 100 in attendance

Two classrooms of students from Rolando Elementary School participated in the Watershed Stewards Program. This program involved classroom presentations and field trips, including a native plant revegetation exercise. More detail about this program is provided in Section 10 of this report.

The City also presented educational material in a training session entitled “Native Plants, Pesticide Reduction” that was presented in partnership with the Solana Center. Participants were presented with tips on maintaining native landscaping to avoid the need for pesticides. This seminar was part of the IPM education program being conducted in the San Diego Region.

WEBSITE

The City website, www.cityoflamesa.com, is a useful resource for City residents to obtain information on the design and intended use of the storm drain system, HHW, alternatives to hazardous household products, volunteer opportunities, contact information, city ordinances and codes, BMPs for construction, commercial, and residential activities, IPM cards, and much more. A past *La Mesa Focus* “special edition” newsletter specifically about storm water is included on the website. The newsletter details the fate of storm water system discharges and the types of pollutants that make their way to the ocean. Additionally, the newsletter includes facts about pollution and ways to prevent pollution from entering the storm drain system. The storm water hotline number is displayed on the website, which also includes a page allowing online reporting of illegal storm water discharges. Individuals are encouraged to seek out information on the user-friendly website. The website was last updated in 2006.

LEADERSHIP ACTIVITIES & PARTNERSHIPS

The City of La Mesa strives to be an active participant in storm water pollution prevention within the region. City staff attended various regional meetings and forums to maintain their involvement. The City believes that involvement in regional storm water activities will help to eliminate storm water pollution on a larger scale. During this reporting period, the City continued to work with other Copermittees to form the San Diego HHW Partnership, which works to utilize HHW Grant funding to increase public outreach and education throughout the region with a coordinated, more effective approach.

MEASURING CHANGES IN KNOWLEDGE AND BEHAVIOR

The most accurate way to measure the effectiveness of an NPDES program is to determine whether heightened awareness is markedly improving the behavior of the public. During this reporting period there were 133 public complaints related to the storm drain system (Table 8.1) compared to 49 complaints in 2003/2004 and 74 complaints in 2004/2005. These numbers were dramatic increases compared to 2001/2002, when only three storm water complaints were made. An increase in complaints is an indication that both the public and City staff are taking an active role with respect to storm water pollution prevention. It also shows that the City has increased its educational efforts to make City residents more aware of what storm water pollution consists of and how they can help mitigate it. Residents of the City and City staff appear to be more educated in general on the topic and the storm water hotline number has also been widely published in brochures and newsletters.

IMPRESSIONS MADE

The City's primary mechanisms of educating the public during the 2005/2006 reporting period included inspections, distribution and mailing of educational materials, targeted training sessions, and various events. Examining the number of educational efforts made allows a general number of public impressions to be estimated, although this estimate measures quantity and not quality. Reasonable, conservative estimates of the numbers of impressions generated by the City's efforts allow for a more realistic evaluation of the effectiveness of the NPDES program.

The estimated number of impressions was generated by multiplying each effort by the number of impressions thought to be generated by that particular effort. For example, inspections have been presumed to generate three impressions, with the exception of municipal inspections, which usually involve more personnel and have been assumed to generate five impressions. Training sessions and clean-up events have been assumed to generate a number of impressions equal to four times the number of attendees because it is likely that the attendees will discuss the content with others after the training. Printed educational material distributed in mass numbers are assumed to generate three impressions each, and materials distributed in person during inspections are defined as generating five impressions since multiple people will likely view them and the content being more directly relevant. The following table represents the number of impressions generated by the City:

EDUCATIONAL & OUTREACH PLANS FOR 2006/2007

The City is planning to support the following efforts during the 2006/2007 reporting period:

1. Continue to provide educational material for City staff, industrial and commercial business owners, managers, residents, and developers. Educational materials include pamphlets, brochures, and articles in the City's newsletter. The City will also continue to develop these educational tools to make them as effective as possible.

2. Continue to maintain its NPDES Storm Water Bulletin Board near the City's front desk. The bulletin board will continue to provide NPDES Storm Water information to the Engineering department as well as any visitors.
3. Continue to educate municipal facility managers, industrial/commercial businesses, and construction site managers on storm water pollution prevention and effective BMP implementation during the routine NPDES Storm Water Compliance Inspections.
4. Continue to train City staff on NPDES Storm Water requirements as well as watershed concepts. Staff is encouraged to convey as much of this information as possible to the public on a routine basis.
5. Utilize the newly developed Watershed Demonstration Model to provide a visual representation of watershed concepts (Attachment 9.1). The City plans to use the model at Kid's Fest during the 2006/2007 reporting period and various other events and booths.
6. Continue to distribute IPM information cards as well as presenting IPM topics at workshops.
7. Work to distribute a "City of La Mesa Storm Water Pollution Prevention: Over-irrigation" fact sheet that will remind residents and businesses that over-irrigation produces runoff that releases pollutants into the storm drain system.
8. Finalize, install, and maintain the kiosks at three City parks with storm water educational materials.
9. Continue working with Project Clean Water's outreach workgroup to generate new brochures and participate in regional outreach activities.
10. Have a booth and educational outreach material available at the 2006 Oktoberfest occurring 10/6/06 – 10/8/06.
11. Include a watershed model demonstration by ILACSD at the Intergenerational Games at La Mesa Middle School.

JURMP UPDATE

No updates to the JURMP Education Section have been made during this reporting period.

Table 9.1
Impressions Generated by the City

IMPRESSION TYPE	COUNT	UNIT	ESTIMATED IMPRESSIONS
Municipal Inspection	8	Inspections	40
Industrial Inspection	5	Inspections	10
Construction Inspection	91	Inspections	182
Training Sessions and Information/Event Sessions	2,310	Attendees	9,240
Preventing Urban Runoff Trifold	1,000	Brochures	3000
2006 City Calendar	56,000	Calendar	168,000
What's Cookin'	3	Brochures	9
Storm Water Pollution Prevention: Pools and Spas	10	Handout	30
IPM Information Cards	200	Info Cards	600
Pollutants Were Found in Your Neighborhood	214	Letter	642
Letters to Automotive Dealerships	31	Letter	93
Less Toxic Yard and Gardening	1,000	Brochures	3,000
Put Toxic Waste in its Place	1,000	Brochures	3,000
San Diego Bay Watershed Fact Sheet	1,000	Sheet	3,000
San Diego River Watershed Fact Sheet	1,000	Sheet	3,000
Mobile Business Affidavits	5	Forms	15
BMP Handbook for Construction Activities	10	Booklets	30
Guide to Construction Activity	100	Brochure	300
Recycling and Demolition Guide	20	Brochure	60
<i>La Mesa Focus</i> Newsletter	90,000	Newsletters	270,000
Storm Water Bulletin Board	200	Visits	600
HHW Baggies	200	Baggies	600
<i>City of La Mesa Total</i>			<i>465,451</i>

10 PUBLIC PARTICIPATION

The City of La Mesa plays an active role in motivating its residents to be participants in storm water pollution prevention. Keeping residents informed and involved is a key component of maintaining and implementing an effective storm water program. It is important that residents feel a sense of accountability and responsibility for maintaining their environment. This reporting period, the City has continued to sponsor community events, household waste collection events, cleanup events, and school outreach programs. Furthermore, the City offers a wide range of print media during outreach events and compliance inspections as a continued method of heightening public awareness about storm water activities.

City employees are an integral part of the transfer of information to the general public. They are educated in storm water pollution prevention and are expected to pass on that information to the general public as often as possible. The City considers its proper management of municipal facilities and activities to be a model for the rest of the community.

The City recognizes the need to build and maintain partnerships with other agencies in preventing storm water pollution. The City actively partners with other jurisdictions, the Solana Center, and ILACSD for outreach and public participation events.

STORM WATER COPERMITTEE MEETINGS

The Storm Water Copermittee meetings provide a forum for representatives from the various regulated jurisdictions within the County and other interested parties to exchange information about storm water quality issues. The Principal Permittee is the County of San Diego, which leads this forum. These meetings are open to the public, providing opportunities to comment and voice issues related to storm water quality. The City of La Mesa continued to attend these meetings during this reporting period and will continue to do so during the 2006/2007 reporting period.

COMMUNITY ACTIVITIES

Clean Ups

This reporting period, the City participated in numerous cleanup events. In addition to the direct removal of trash and debris, cleanup events provide an opportunity for active, participatory learning. The City hosted a cleanup day for its 14 public parks; 75 people participated in the cleanup, and over three tons of debris were collected. The City also hosted the "La Mesa Spring Clean Up" which focused on green waste disposal for residents. Residents who participated in this event were also presented with IPM information cards to

encourage them to practice pollution prevention techniques for lawn care activities, particularly pesticide application.

The City also teamed with other organizations to involve the public in other cleanup events. The City and ILACSD partnered to coordinate a site in Alvarado Channel as part of the Creek to Bay Cleanup. This event was the first of its kind at Alvarado Channel. The City's Environmental Specialist made a brief speech to the volunteers about storm water pollution prevention and local watersheds at the beginning of the cleanup. Watershed factsheets and the "Preventing Urban Runoff" brochure were also distributed to attendees. A total of 15 participants removed 752 pounds of debris (Figure 10.1). The City again coordinated with ILACSD to participate in the annual statewide California Coastal Cleanup Day, one of the most successful large-scale cleanup projects in the country. The cleanup occurred at Lake Murray, where 128 volunteers cleaned up 280 pounds of trash and five pounds of recycling debris (Figure 10.2). The City's approach of partnering with other organizations such as ILACSD has proven to be successful in acquiring a large number of volunteers and effectively removing trash and educating volunteers about storm water pollution prevention.



Figure 10.1 Creek to Bay Cleanup at Alvarado Channel



Figure 10.2 Coastal Cleanup Day at Lake Murray

Community Hazardous Waste Collection and Used Oil Recycling Program

The City of La Mesa has further encouraged public participation by continuing its Community Hazardous Waste Collection and Used Oil Recycling Program. The City has conducted six HHW collection events for La Mesa residents and business owners. The permanent HHW collection center is located near the geographic center of the City at EDCO Disposal's transfer station facility. Conditionally exempt small quantity generators and businesses generating less than 100 kilograms of hazardous waste per month are also eligible to utilize the program. Furthermore, the City's program encourages the senior and disabled community to participate by offering door to door pickup service. In this reporting year, the City collected approximately 100,125 pounds of HHW. Reclaimable wastes and flammable and poisonous wastes were the two largest characteristic-based groups of HHW collected (38 percent and 34 percent, respectively). In terms of specific materials, oil-based

paint and latex-based paints were the two largest waste volumes collected (22 percent and 31 percent, respectively). A detailed list of HHW collection totals is included in Attachment 5.5.

The City also encourages the public to dispose of their electronic wastes properly. The City held three electronic waste disposal events this reporting period in various locations around the City. The City's goal in offering this service at various locations is to make the experience as convenient as possible for its residents, consequently reaching a larger number of individuals.

Adopt a Park Program

The City continues to implement its Adopt a Park Program by inviting local businesses, schools, service organizations, and families to be involved in keeping the parks free of debris. Under this program, the volunteers are responsible for picking up trash and debris on a regular basis from the City's parks and open spaces. This program continues to be successfully implemented by supportive community members, and the same nine parks that were part of the program in 2004/2005 are still included in the program.

Adopt a Block Program

The City of La Mesa continues to implement its Adopt a Block Program by inviting City residents to take part in cleaning their neighborhoods. Under this program, the volunteers commit to picking up trash and debris on a regular basis from their neighborhoods around the City. The City is encouraging residents to participate and provides items such as plastic bags, trash pickers, and vests to volunteers.

School Outreach

This reporting period, the City joined the Solana Center in two school outreach program presentations designed to educate the City's youngest residents in storm water activities. The presentations focused on the differences between the storm drain system and the sewer system as well as proper HHW disposal. "Put Toxic Waste in its Place" (Attachment 3.4), "Less Toxic Yard and Garden and Care" booklets (Attachment 5.8), paper seed bookmarks, and HHW sponges were distributed to each child in attendance. Events were held at both Avocado Elementary and La Mesa Dale Elementary, with approximately 236 school children in attendance.

This reporting period, the City participated in the San Diego Bay Watershed Stewards Project. This program, specifically designed for fourth through sixth graders of the eight municipalities in the San Diego Bay Watershed, including the City of La Mesa. The program was a collaborative effort of the San Diego Bay Copermittees, the EcoLife Foundation, and the San Diego Zoo, and it was funded by a State "Whale Tail" grant. As stated in the 2006 Watershed Stewards Final Report (Attachment 10.1), the goal of the program is to "empower future generations with the knowledge and skills to actively conserve their local watershed and its wetlands; and to enhance the water quality and

wetland habitats within the San Diego Bay watershed.” The City worked with the La Mesa-Spring Valley School District to get permission to approach Rolando Elementary School and obtain permission to conduct the program and field trips. As a result of these efforts, students in two classrooms at Rolando Elementary School, about 65 students, participated in interactive classroom activities and a field trip to Chollas Creek to increase their knowledge and understanding of watershed concepts. A portion of the field trip involved planting native plants to help restore a section of Chollas Creek.

Storm Water Information Kiosks

This reporting period, the City continued to move forward with its plan to install storm water information kiosks at three City parks. The City is working in conjunction with local Eagle Scouts and their parents to erect these kiosks, which will offer educational signs as well as educational materials for park patrons to take. The Eagle Scouts and their parents have been made aware that the kiosks will serve to educate the public about storm water pollution prevention and watershed concepts. At the time of this writing, City officials have approved the design, and the kiosks are expected to be completed in the spring of 2007. If these kiosks are found to be a successful means of public outreach, then the City hopes to install more kiosks in other City parks.

Commercial Participation

This reporting period, the City requested that two commercial businesses in La Mesa, Target and Dixieline Lumber, provide IPM cards for patrons of their businesses to take home with them. Both businesses cooperated with the City’s Environmental Specialist and allowed IPM cards to be distributed at their garden centers or check out stands. Active participation by commercial businesses in storm water pollution prevention is an important advance in storm water pollution prevention, and the City plans to continue these efforts.

Public Reporting

As described in earlier sections of this Annual Report, the City continues to receive and respond to complaints through the City’s storm water hotline and online reporting system. The storm water hotline is found in most print media distributed by the City. It can also be found on the City’s website and in articles published in *La Mesa Focus* newsletter. Storm water violations can also be reported via the newly implemented user-friendly website. During this reporting period, the City received two complaints via the City’s web reporting system and hopes to receive more complaints in future reporting periods. This service encourages the public to develop an improved sense of acceptable storm water activities and to participate in the City’s NPDES program by reporting IC/IDs. The complaint system is a valuable resource for the City to reduce storm water pollution. Each of the reports received by the City is investigated thoroughly.

PUBLIC PARTICIPATION PLANS FOR 2006/2007

The City of La Mesa will continue to encourage the public to participate in the NPDES Storm Water Program through a variety of means, including educational events and print media. The following is a list of proposed activities for 2006/2007.

1. The City plans to continue the HHW Collection Program as well as Electronic Waste Disposal events.
2. The City also plans to continue to host and participate in various cleanup events throughout the City's jurisdiction including California Coastal Cleanup Day, the Creek to Bay Cleanup, and Park Appreciation Day, where residents of the City will work to clean City parks.
3. The City will continue to encourage the public to actively participate in protecting storm water by using the NPDES Storm Water Hotline and web reporting system to report IC/IDs.
4. City will continue to implement the Adopt a Block Program and use the help of residents to collect trash around neighborhoods.
5. The City will continue to implement the Adopt a Park Program.
6. The City will continue to attend the regular storm water Copermittee meetings.
7. The City plans to install and maintain storm water educational kiosks in three City parks.

JURMP UPDATE

There were no updates to the Public Participation component of the JURMP during this reporting period.

11 ASSESSMENT OF JURMP EFFECTIVENESS

Each year the City spends considerable time, effort, and resources implementing its JURMP. In turn, the City is committed to regularly assessing the effectiveness of its program and making adjustments where necessary. This practice helps the City improve both the efficiency and efficacy of its storm water management actions. The basic foundation of the assessment procedure is comprised of three main pieces.

- Program Planning: Includes source characterization, BMP selection, targeted outcomes, and measures of indicators.
- Program Implementation: Includes implementation of selected measures.
- Effectiveness Assessment: Includes water quality assessment, program assessment, and integrated assessment. Effectiveness is evaluated on six increasingly complex levels.

The following sections present the City's approach and activities in assessing the effectiveness of the JURMP.

PROGRAM PLANNING

The City storm water program is charged with reducing discharges of pollution to the MS4 to the MEP. This process involves the abatement of pollutant sources, which in turn first requires the identification of such sources. Inventories of priority sources in the residential, industrial, commercial, municipal, and construction sectors have been prepared and are regularly updated. These updated inventories are presented each year in the City's JURMP Annual Report. In compiling inventories, the City relies on inspection data, water quality monitoring data, complaint records, and institutional knowledge. The City has further related known priority sources to key constituents, as shown in Table 11.1.

City program implementation is further tailored to the specific characteristics of the community. For example, La Mesa is a largely residential jurisdiction, with relatively small commercial and industrial zones. With that in mind, the City has sought to aggressively pursue programs that target residents, such as cleanup events, outreach campaigns, collaborative partnerships, and regular distribution of print educational materials.

BMP SELECTION

Implementation of proper BMPs is needed to reduce pollutant discharges from sources. The City's JURMP, particularly Appendix C, includes detailed lists of BMPs along with fact sheets that explain how the BMPs should be implemented. To further the BMP selection process, the City has also identified key BMPs for identified priority sources, as shown in Table 11.2. The table is based off of the general assessments of land use and more specific applications of data from the Dry Weather Monitoring Program.

The City employs a variety of methods to educate individuals of their responsibilities to implement BMPs. Fact sheets, brochures, and other reference materials are both available at City Hall and are periodically mailed out to members of the community. City staff are also able to provide insight about storm water concerns. WQTRs submitted by development projects are reviewed for compliance with BMP standards. Review comments are prepared for each submitted report, as discussed in Section 6 of this Annual Report. If problems are noted, the WQTR must be revised to address the comments and resubmitted for another review.

Further, storm water compliance inspections and complaint investigations are regularly conducted both to provide further, more site-specific education and to help enforce BMP requirements. Direct interaction between members of the community and inspectors provides valuable opportunities for education about the storm water program and about what BMPs are best for a specific situation. Tailored BMP advice in the context of one's own home or workplace has the potential to be more meaningful than more detached instruction through print materials or presentations. In addition to visual observations of the site conditions, inspectors also take storm water monitoring results into consideration when they are available. Where ineffective BMP implementation is observed, inspectors require corrections, and enforcement actions are taken as necessary to achieve compliance.

TARGETED OUTCOMES

Establishing measurable, targeted outcomes is necessary to gauge progress. At the beginning of each fiscal year, the City sets targets. At the end of the year, the City then compares the recorded results from the year with the targets. Table 11.3 provides a summary of the targeted and recorded outcomes for the 2005/2006 fiscal year.

When setting targets and collecting data to assess progress towards them, it becomes apparent that some goals are more easily assessed than others. Typically, items mandated by the Permit, such conducting the Dry Weather Monitoring Program or investigating storm water complaints, are relatively easy to measure. Conversely, goals such as significant improvements in receiving water quality are more difficult to assess.

The effectiveness assessment approach jointly developed by the Copermittees recognizes this distinction by defining six different levels of targeted outcomes. Each successive level represents a step up from more easily measured, activity-based outcomes to more difficult to measure, quality-based outcomes. The levels are listed below.

- | | |
|----------|--|
| Level 1: | Compliance with Activity-Based Permit Requirements |
| Level 2: | Changes in Knowledge/Awareness |
| Level 3: | Behavioral Change/BMP Implementation |
| Level 4: | Load Reductions |
| Level 5: | Changes in Discharge Quality |
| Level 6: | Changes in Receiving Water Quality |

Level 1: Compliance with Activity-Based Permit Requirements

The Municipal Permit contains many requirements that Copermitees must meet. Examples of these types of requirements include, but are not limited to, inspecting construction sites on certain minimum frequencies, conducting the Dry Weather Monitoring Program, and reporting spills within given time frames.

Table 11.3 summarizes the City's efforts toward meeting activity-based Permit requirements in 2005/2006. One hundred percent of cleanout locations in the MS4 were maintained, City streets were swept, and landscaping was maintained using IPM techniques. All high priority municipal and industrial facilities were inspected once during this reporting period. High priority construction sites were inspected at least weekly during the wet season, while medium and low priority sites were generally inspected twice. In certain instances, low priority construction sites were inspected only once because the project was completed in a short period of time. The Dry Weather Monitoring Program and follow-up investigations were conducted, and actions were taken to address sources of pollutants noted by the monitoring. The City also promptly responded to and resolved the storm water complaints it received.

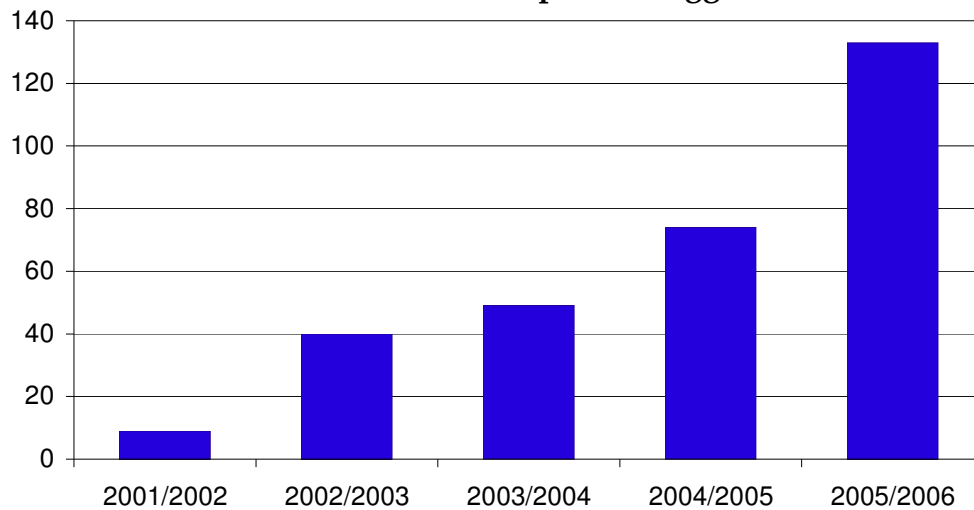
The City has inspected all of its inventoried industrial and high priority commercial sites during the life of the Municipal Permit. Tables 11.4 and 11.5 present watershed-based inventories of various categories of industrial and commercial facilities, respectively, along with the numbers of facilities inspected and overall number of inspections. Because some facilities have received multiple inspections, the number of inspections is sometimes greater than the number of facilities inspected.

Level 2: Changes in Knowledge/Awareness

Heightening awareness and knowledge of storm water pollution prevention is a goal of the City's storm water program. The City employs methods such as training sessions, workshops, presentations, cleanup events, and distribution of print materials.

The City maintains a Storm Water Hotline by which citizens can report storm water complaints. The public may also submit complaints through the city's website. Over the years, a discernable increasing trend in the number of complaints reported has been observed. While this could potentially be the result of an increase in storm water problems, the fact that Dry Weather Monitoring Program results have not shown increasing trends, especially for pollutants like detergents that are good indicators of common IC/IDs, argues against that hypothesis. Instead, the increase is more likely due to the City's efforts to educate citizens about what constitutes a reportable storm water problem and where it should be reported. The City regularly publishes its Storm Water Hotline number in the *La Mesa Focus* newsletter, which is mailed to approximately 27,500 addresses three times per year. The hotline number is also included on a number of other common print materials. Figure 11.1 shows the increasing trend in storm water complaints over the past few years.

Figure 11.1
Storm Water Complaints Logged



There were 19 training sessions held for City staff in 2005/2006, and the Municipal Storm Water BMP Handbook continued to be distributed to new employees. The City's Environmental Specialist administered a storm water knowledge quiz to public works employees, as described in sections 2 and 9 of this JURMP Annual Report. Scores from the June 2005 and June 2006 tests for the same group of people were compared. As shown in a graph in Section 9, higher scores were recorded in 2006 than in 2005, indicating an improvement in the level of storm water awareness.

In accordance with storm water training they have received, Parks and Recreation Landscape Maintenance Staff apply fertilizers and pesticides properly. They also seek to eliminate non-storm water discharges caused by over-irrigation. The City routinely checks the irrigation systems to ensure faulty sprinkler heads or leaks are eliminated, and many manual irrigation systems have been converted to Calsense.

Storm water compliance inspections of industrial facilities and commercial businesses have increased knowledge of storm water pollution prevention. During the inspection process, inspectors educate business owners on the difference between the storm drain system versus the sewer system, potential pollutants, pollution prevention measures, BMP implementation, and the Municipal Permit and General Industrial Permit requirements are discussed as deemed applicable. As described previously in this Annual Report, the City has implemented a knowledge assessment for its industrial and commercial inspections. The system rates the storm water knowledge of the responsible person at the facility on a scale of one (1) to five (5), which five representing the highest level of knowledge. This approach was used at six facilities that were inspected in both 2004/2005 and 2005/2006. As described in Section 3, the knowledge score at most of the facilities was higher in 2005/2006.

The new development and redevelopment project approval process helps educate property owners and developers about storm water requirements. Interaction with the City staff and the DAB enables project proponents to learn more about the requirements that apply to their projects. General storm water pollution prevention concepts are discussed followed by site-specific BMP implementation. Review comments on submitted WQTR are also provided to project proponents, and some improvement in submitted WQTRs was observed over the course of the reporting year.

Over 200 letters were mailed to residents in response to recommendations from the Dry Weather Monitoring Program. These letters alerted residents of pollution found in their neighborhoods and informed them of BMPs that could be implemented. Letters were also mailed to La Mesa Dale Elementary School, the Grossmont Center shopping center, automotive dealerships, and restaurants. The City's Environmental Specialist received calls from some automotive dealerships regarding the letter. The City's Environmental Specialist also conducted a Green Business Workshop for restaurants. Furthermore, La Mesa residents participated in a number of cleanups, including the Creek to Bay Cleanup and Coastal Cleanup Day. The City's Adopt a Park Program, Adopt a Block Program, and Canine Corners Program also involved citizens in cleaning up various locations in the City. The Solana Center performed several educational presentations, as described in Section 9. These efforts are believed to have resulted in increased storm water knowledge and awareness. Fifth grade students at Rolando Elementary School in the City also participated in the Watershed Stewards Program, for which pre- and post-program surveys demonstrated a positive change in awareness (Attachment 10.1).

Level 3: Behavioral Change/BMP Implementation

When members of the community are more knowledgeable about storm water issues, they may be more likely to implement BMPs. Such behavioral change is an important goal of the storm water program.

The City's construction inspections have results in implementation of BMPs at those sites. Weekly inspections by the City combined with the threat of enforcement compel developers and property owners to be proactive in ensuring their sites are in compliance with the Municipal Permit and General Construction Permit. During this reporting period the City had inspectors on site weekly at all high priority construction sites, which likely led to improved BMP implementation. More consistent implementation of effective BMPs indicates a positive change in the behavior of those responsible for storm water management at construction sites. Overall, City representatives report an increased responsiveness and effective BMP implementation at construction sites throughout the City.

The City has implemented a BMP assessment system for its industrial and commercial inspections; the approach used has been described previously in this Annual Report. The BMP implementation at inspected businesses is rated on a scale of one (1) to five (5), with five being the highest level. BMP implementation was scored at six facilities in 2005/2006.

BMP scores were also recorded at those same sites in 2004/2005. A comparison of the scores showed some scores increased and some decreased, as explained in Section 3. The City also worked with the RWQCB to bring about significant improvements at Rainbow Steel, Inc. during the reporting period. The City also now requires mobile detailing and power washing businesses to sign storm water BMP implementation affidavits when applying for business licenses. This program is likely to result in improved BMP implementation.

Sixteen new doggie bag dispensers were installed at City parks during the reporting period. The City now maintains doggie bags dispensers at all of its parks, and some parks have multiple dispensers. Seeing the dispensers reminds residents of the need to clean up after their pets, and the increased number of dispensers makes doing so more convenient. Approximately 4,500 pet waste collection bags were used at the parks during 2005/2006. While the number of people who collected their pets' wastes before the implementation of doggie bag dispensers is unknown, it is likely that implementation of the pet waste collection bag dispensers has increased the number of residents cleaning up after their pets at City parks.

Level 4: Load Reduction

Reducing loads of pollutants discharged is one of the City's main targeted outcomes, as it is expected to lead to improvement in water quality. The City can qualitatively conclude that load reductions occur in many instances, although accurate estimation of numeric loads is often not possible.

Inspection of construction sites to ensure erosion and sediment control measures are fully implemented results less sediment and other construction related pollutants being discharged. The City reviews the SWPPP or erosion control plan for grading projects prior to the start of construction, as proper planning is an important part of the process. The City's regular inspections then help ensure that BMPs are effectively implemented when construction is underway, ultimately reducing the potential sediment load.

Using Calsense instead of manual irrigation systems helps reduce pollutant loads. This system will automatically shut off when faulty sprinkler heads or a break in the water line is detected. Broken sprinkler heads or line breaks can cause erosion and transport sediment and other pollutants; Calsense minimizes these effects, resulting in a load reduction. Further, Calsense minimize over-irrigation, which can transport pollutants to the MS4. Figure 11.2 demonstrates a decrease use in water consumption for irrigation; implementation of Calsense is believed to be largely responsible for the decrease.

Street sweeping and storm drain inlet cleaning directly result in measurable load reductions. For this period, 803 tons of debris were collected from street sweeping, while 203 cubic yards of debris was collected from the MS4. Both these numbers are larger than the amounts collected in 2004/2005. The distance swept in 2005/2006 was more than 1,300 curb-miles greater than that swept the previous year, which may account for the difference in the

debris collected in the two years. Additionally, the City installed 22 new catch basin filter inserts in the University Channel basin during previous the reporting period, bringing the total number of filter inserts implemented at City facilities to 29. During 2005/2006, 18 cubic yards of material, estimated to be 80 percent sediment and 20 percent trash, were removed from filter inserts in the City.

As mentioned above, approximately 4,500 pet waste cleanup bags were distributed at City parks. This results in a reduction of the amount of pet waste and associated pollutants that can be discharged to the City's storm drain system. The City's Adopt a Park and Adopt a Block programs have also contributed to load reductions, primarily via clean up of trash and debris. Approximately 285 pounds of trash and debris were collected at the Coastal Cleanup Day event at Lake Murray, and 752 pounds of trash were removed from Alvarado Channel during the Creek to Bay Cleanup. A separate cleanup of City parks resulted in the removal of over three tons of trash and debris. Over 100,000 pounds of HHW were collected in 2005/2006, reducing the load of various hazardous compounds that could otherwise have been discharged to the storm water system via illegal dumping.

Level 5: Changes in Discharge Quality

Unlike assessments of levels 1 through 4, changes in storm water discharge quality are based on direct measurement of water quality. While no regular wet weather monitoring stations are located in or relatively close to the City of La Mesa, the City's Dry Weather Monitoring Program has provided useful water quality information. Figure 11.3 provides a graph with historical data.

Ammonia and detergents were measured as part of the Dry Weather Monitoring Program prior to the issuance of Order 2001-01, which added a variety of new constituents to the Dry Weather Monitoring Program. Ammonia and detergents are thus the two constituents with the longest historical records, and they are also generally considered to be among the best indicators of IC/IDs. These characteristics make them excellent candidates for further analysis. Based on historical data and the recent 2006 Dry Weather Monitoring Program findings, the number of sites exceeding the established action levels has decreased, as has the overall median of the ammonia readings (Figure 11.4). The average and median of measured detergents concentrations and the number of detergents exceedances show decreasing trends (Figure 11.5). The trends in counts of fecal coliform and enterococcus bacteria, typically considered indicators of pathogens, are shown in Figure 11.6. Fecal coliform readings have shown general downward trends, and only one action level exceedance of these bacterial groups has been recorded during each of the past two Dry Weather Monitoring Programs.

Some downward trends in pollutant levels have been noted, which is a positive sign. With the fluctuation in pollutant concentrations and the limited data available, though, it is premature to unequivocally determine that major changes in discharge quality have occurred. However, the efforts to bring Rainbow Steel, Inc. into compliance and the

elimination of a number of illegal discharges in response to reported complaints certainly led to improvements in the quality of the discharge. As an additional note, the pesticide diazinon has recently been banned. Diazinon action level exceedances have not been detected in recent Dry Weather Monitoring Programs.

Level 6: Changes in Receiving Water Quality

Level 6 can be translated into the overall improvement of water quality in receiving water bodies. Examples of reaching Level 6 include changes in receiving water quality with respect to regulatory benchmarks, biological integrity, and beneficial use attainment. A long-term strategy is required to collect the volume of data necessary for assessment of Level 6. The Copermittees are collaborating as a group to establish a plan for collecting water quality data from receiving water bodies throughout the County. While major receiving water bodies such as the San Diego River and the Sweetwater River do not pass through the City's jurisdiction, the City recognizes the importance of protecting the water quality of those natural resources and thus contributes to regional monitoring efforts. A sufficient data set is necessary prior to conducting a trend analysis to determine changes in receiving water quality and further link those changes to activities conducted in the City. At this time such a data set is not available. It is therefore premature to make conclusions about the City's impact on downstream receiving water quality during this reporting period.

ASSESSMENT OF JURMP EFFECTIVENESS PLANS FOR 2006/2007

The City of La Mesa will continue to enhance the Program Planning, BMP Selection, and Targeted Outcomes for the 2006/2007 fiscal year.

Table 11.1
Source Characterization
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	LAND-USE	POTENTIAL HIGH PRIORITY SOURCE	ESTIMATED NUMBER AND PERCENT OF TOTAL SOURCES	PRIORITY
Sediment	In the vicinity of University Channel/ In the area surrounding Nagel Sarita St.	Residential	Planters, Street	5%	Low
	Grossmont Shopping Center	Commercial	Landscape, Parking Lots, Streets	35%	Low
	Jurisdictional	Open Space	Slopes	60%	High
Fertilizer (Nitrate, Phosphate)	Vicinity of University Channel	Residential	Planter, Landscape	40%	High
	Grossmont Shopping Center	Commercial	Landscape, Parking Lots, Streets	40%	Medium
	Jackson Drive	Commercial	Landscape, Parking Lots, Streets	20%	Medium
Bacteria	South of I-8 Jackson Dr.	Residential	Individual homes	20%	Low
	Along Alvarado Cr. up to Amaya Dr./ Grossmont Hospital / Grossmont Shopping Center / Jackson Drive and Vicinity	Commercial	Streets, Curbs	20%	Medium
			Landscape	50%	High
	Northeast of Fletcher PKWY and Amaya Dr. intersection	Open Space	Parks, Open Channels	10%	Low
Oil and Grease	Jurisdictional	Residential	Driveways, Streets, Parking lots	10%	Low
	Along Alvarado Cr. up to Amaya Dr./ Grossmont Hospital / Grossmont Shopping Center / Chollas Cr. surrounding	Commercial	Restaurants,	20%	Medium
			Parking lots	20%	Medium
			Streets, Curbs	20%	Low
	Jackson Drive and vicinity of Commercial St.	Industrial	Automobiles, Repair Shops	30%	High

Table 11.1 (Continued)
Source Characterization
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	LAND-USE	POTENTIAL HIGH PRIORITY SOURCE	ESTIMATED NUMBER AND PERCENT OF TOTAL SOURCES	PRIORITY
Metals (Copper, Zinc)	Boulevard Drive	Residential/ Commercial	Streets, Curbs, Parking lots	20%	Low
	Shopping Centers, Surrounding Area of Alvarado Channel	Commercial	Parking Lots	20%	Low
	Jurisdictional	Various	Automobiles	20%	Medium
	In the vicinity of Commercial St.	Industrial	Repair Shops, Machine Shops	40%	High
Organics (Surfactants)	North of I-8, West of Baltimore Dr./ Massachusetts Ave	Residential	Washing Cars, Households and Driveway	40%	Medium
	In the vicinity of Grossmont Shopping Center / In the area surrounding Grossmont Hospital / Along Alvarado Cr.	Commercial	Car Washing	40%	Medium
	Harbinson Avenue Vicinity	Residential	Car Washing	20%	Low
Pesticides	Jurisdictional	Residential	Individual homes	80%	Medium
	Along Alvarado Cr., Boulevard Drive	Commercial	Planter, Landscape	20%	Medium
Gross pollutants (Trash, Debris)	In the area surrounding Harbinson Ave./ In the vicinity of Nagel Sarita St.	Residential	Individual homes, Streets	30%	Low
	Along Alvarado Cr./ University Channel surrounding and along lower stretches of University Ave	Commercial	Streets, Parking Lots, Illegal Dumping	70%	High

Table 11.1 (Continued)
Source Characterization
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	LAND-USE	POTENTIAL HIGH PRIORITY SOURCE	ESTIMATED NUMBER AND PERCENT OF TOTAL SOURCES	PRIORITY
Ammonia	North of I-8, West of Baltimore Dr	Residential	Sewage overflow / Decomposed Materials / Cleaner	20%	Low
	In the vicinity of Grossmont Shopping Center / In the area surrounding Grossmont Hospital / Along Alvarado Cr.	Commercial	Sewage overflow / Decomposed Materials / Cleaner	80%	High

Table 11.2
BMP Selection
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	POTENTIAL HIGH PRIORITY SOURCE	SPECIFIC ACTIVITY	POTENTIAL BMP
Sediment	In the vicinity of University Channel, In the area surrounding Nagel Sarita St.	Planters, Street	Soil erosion	Street Sweeping BMP(SC-7)*, Storm Drain Inlet Protection BMP(SC-10), soil stabilization
	Grossmont Shopping Center	Landscape, Parking Lots, Streets	Soil erosion, washing and blowing parking lots	Sediment Trap BMP(SC-3), Street sweeping BMP(SC-7), Storm Drain Inlet Protection BMP(SC-10)
	Jurisdictional	Slopes	Soil erosion	Desiltation Basins (SC-2), Fiber Rolls BMP(SC-5), Street Sweeping BMP(SC-7), Preservation of Existing Vegetation BMP(SS-2), Hydraulic Mulch BMP(SS-3)
Fertilizer (Nitrate, Phosphate)	In the vicinity of University Channel, Jackson Drive	Planter, Landscape	Fertilizer application	minimize use of fertilizers, keep chemicals in a covered storage, irrigation control
	Grossmont Shopping Center	Landscape	Fertilizer application	minimize use of fertilizers, keep chemicals in a covered storage, irrigation control
		Parks	Fertilizer application	minimize use of fertilizers, keep chemicals in a covered storage, irrigation control

Table 11.2 (Continued)
BMP Selection
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	POTENTIAL HIGH PRIORITY SOURCE	SPECIFIC ACTIVITY	POTENTIAL BMP
Bacteria	South of I-8 Jackson Dr.	Individual homes	Animal excrement, Sewer overflow	Collecting and removing waste for proper disposal, Street sweeping, irrigation control, divert the sewage from storm drains, encourage residents to clean up after their pets and dispose properly
	Along Alvarado up to Amaya Dr., Grossmont Hospital, Grossmont Shopping Center, Jackson Drive surrounding	Streets, Curbs	Animal excrement, Sewer overflow	Collecting and removing waste for proper disposal, Street sweeping BMP(SC-7), irrigation control, divert the sewage from storm drains, encourage residents to clean up after their pets and dispose properly
		Landscape		
		Parking Lots		
	Northeast of Fletcher PKWY and Amaya Dr. intersection	Parks, Open Channels	Animal excrement, Sewer overflow	Collecting and removing waste for proper disposal, Street sweeping BMP(SC-7), irrigation control, divert the sewage from storm drains, encourage residents to clean up after their pets and dispose properly
Oil and Grease	Jurisdictional	Driveways, Streets, Parking lots	Oil change, Oil leak, Spill	Spill Prevention and Control BMP(WM-4)
	Along Alvarado Cr. up to Amaya Dr., Grossmont Hospital, Grossmont Shopping Center, Jackson Drive surroundings	Restaurants	Oil storages, washing, Spill	Spill Prevention and Control BMP(WM-4)
		Parking lots	Oil change, Oil leak, Spill	
		Streets, Curbs	Oil change, Oil leak, Spill	
	In the vicinity of Commercial St.	Automobiles, Repair Shops	Oil change, Oil leak, Spill	Spill Prevention and Control BMP(WM-4)

Table 11.2 (Continued)
BMP Selection
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	POTENTIAL HIGH PRIORITY SOURCE	SPECIFIC ACTIVITY	POTENTIAL BMP
Metals (Copper, Zinc)	Jurisdictional	Streets, Curbs, Parking lots	Painting shops, Car's tires, Machine shops, Auto repair shops	Street sweeping BMP(SC-7), collect runoff from working area inside the berm and dispose as a waste, Perform all painting, material fabrication and auto repair activities inside a covered area
	Shopping Centers, Boulevard Drive, and Alvarado Creek	Parking Lots	Painting shops, Car's tires, Machine shops, Auto repair shops	Street sweeping BMP(SC-7), collect runoff from working area inside the berm and dispose as a waste, Perform all painting, material fabrication and auto repair activities inside a covered area
		Automobiles	Brake Pads	Street sweeping BMP(SC-7)
	In the vicinity of Commercial St.	Repair Shops, Machine Shops	Repair Shop and Machine Shop Activities	Street sweeping BMP(SC-7), collect runoff from working area inside the berm and dispose as a waste
Organics (Surfactants)	North of I-8, West of Baltimore Dr., Massachusetts Ave	Washing Cars, Households and Driveway	Application of Cleaners, solvents	Stop washing vehicles outdoor, dispose wash water properly, minimize use of detergents and solvents
	In the vicinity of Grossmont Shopping Center, In the area surrounding Grossmont Hospital, Along Alvarado Creek, Harbinson Ave surroundings	Car Washing, Cleaner	Application of Cleaners, solvents	Stop washing vehicles outdoor, dispose wash water properly, minimize use of detergents and solvents

Table 11.2 (Continued)
BMP Selection
Fiscal Year 2006

CONSTITUENT OF CONCERN	GEOGRAPHICAL AREA	POTENTIAL HIGH PRIORITY SOURCE	SPECIFIC ACTIVITY	POTENTIAL BMP
Pesticides	Jurisdictional	Individual homes	Pesticide application	keep chemicals in a covered storage, proper use of pesticides, irrigation control
	Along Alvarado Cr. And Boulevard Drive	Planter, Landscape	Pesticide application	keep chemicals in a covered storage, proper use of pesticides, irrigation control
Gross pollutants (Trash, Debris)	In the area surrounding Harbinson Ave., In the vicinity of Nagel Sarita St.	Individual homes, Streets	Plant debris, lawn-clippings	Solid Waste Management BMP(WM-5), regularly sweep liter and debris, pick up animal waste when walking pets
	Along Alvarado Cr., University Channel surrounding	Streets, Parking Lots, Illegal Dumping	Street litter, animal excrement	Solid Waste Management BMP(WM-5), regularly sweep liter and debris, pick up animal waste when walking pets
Ammonia	North of I-8, West of Baltimore Dr	Sewage overflow, Decomposed Materials, Cleaner	Sewage overflow, Decomposed Materials, Cleaner	Street sweeping BMP(SC-7), collect decomposed material and trash periodically, check sewage system for overflow periodically, divert runoff from dealer parking lot after using cleaner materials
	In the vicinity of Grossmont Shopping Center, In the area surrounding Grossmont Hospital, Along Alvarado Cr.	Sewage overflow, Decomposed Materials, Cleaner	Sewage overflow, Decomposed Materials, Cleaner	Street sweeping BMP(SC-7), collect decomposed material and trash periodically, check sewage system for overflow periodically, divert runoff from dealer parking lot after using cleaner materials

* BMPs can be found in Appendix C of the City of La Mesa JURMP.

Table 11.3
Targeted Outcomes
Fiscal Year 2006

LEVEL 1: COMPLIANCE WITH ACTIVITY-BASED PERMIT REQUIREMENTS					
PERMIT SECTION	ACTIVITY / SOURCE TYPE	TARGETED OUTCOME	ACTUAL	Measures of Success	
				Actual / Target	%
F.1 Land Use	Development Projects	# sites needing SUSMP 15	# sites subjected to SUSMP 15	15 / 15	100
F.2 Construction	Construction Sites	# sites targeted for inspection 35	# sites inspected 35	35 / 35	100
	All Sites	Total sites identified 35	# in compliance or on a schedule for compliance 35	35 / 35	100
F.3.a Municipal	High Priority Facilities	# facilities targeted for inspection 8	# facilities inspected 8	8 / 8	100
	High Priority Sites	Total sites identified 8	# in compliance or on a schedule for compliance 8	8 / 8	100
	MS4	Estimated quantity of material targeted for removal from MS4 (cubic yards) 200	Quantity of material removed from MS4 (cubic yards) 203	203 / 200	102
	Streets, Parking Lots	Estimated quantity of material to be prevented from entering MS4 (tons) 700	Quantity of material prevented from entering MS4 (tons) 803	803 / 700	115

Table 11.3 (Continued)
Targeted Outcomes
Fiscal Year 2006

Level 1: Compliance with Activity-Based Permit Requirements					
PERMIT SECTION	ACTIVITY / SOURCE TYPE	TARGETED OUTCOME	ACTUAL	Measures of Success	
				Actual / Target	%
F.3.b Industrial	Industrial Sites	# sites targeted for inspection 7	# sites inspected 7	7 / 7	100
F.3.c Commercial	High Priority Sites	# sites targeted for inspection 10	# sites inspected 1	1 / 10	10
F.3.d Residential	Household Hazardous Waste	Quantity of waste targeted for collection (lbs.) 150,000	Quantity of waste collected (lbs.) 100,125	100,125 / 150,000	67
F.4 Education	Outreach (External)	# materials, brochures targeted for distribution 52,000	# materials, brochures distributed 151,593	151,593 / 52,000	292
		# targeted workshops, outreach events 5	# training workshops, outreach events conducted 6	6 / 5	120
	Staff Training	# targeted training events 5	# training events conducted 19	19 / 5	380

Table 11.3 (Continued)
Targeted Outcomes
Fiscal Year 2006

Level 1: Compliance with Activity-Based Permit Requirements					
PERMIT SECTION	ACTIVITY / SOURCE TYPE	TARGETED OUTCOME	ACTUAL	Measures of Success	
				Actual / Target	%
F.5 IC/ID	Dry Weather Sampling	# locations targeted for monitoring 18	# locations monitored 18	18 / 18	100
		# locations requiring follow-up investigations 5	# follow-up investigations conducted 5	5 / 5	100
IC/ID	Illicit connections	# identified 2	# eliminated or on a compliance schedule 2	2 2	100
	Illegal discharges	# identified 33	# eliminated or on a compliance schedule 33	33 33	100
	Complaints / referrals	# received 133	# resolved or on a compliance schedule 133	133 / 133	100
F.6 Public Participation	Opportunities for participation	Estimated # of opportunities to be provided 3	# provided 20	20 / 3	667

Table 11.4
Inspections of Industrial Businesses During the Current Municipal Permit Cycle
JURMP Inception Through Fiscal Year 2006

	HA 907.1			HA 908.2			HA 909.1			ENTIRE CITY		
	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	TOTAL FACILITIES	TOTAL FACILITIES INSPECTED	TOTAL INSPECTIONS
High Industrial	5	5	25*	1	1	5	-	-	-	6	100%	30
Medium Industrial	18	18	36	6	6	11	1	1	1	25	100%	48
Low Industrial	32	32	37	7	7	7	-	-	-	39	100%	44
Totals	55	55	92	15	15	23	1	1	1	70	100%	122

* The RWQCB conducted the inspection of Rainbow Steel in 2005/2006.

Table 11.5
Inspections of Commercial Businesses During the Current Municipal Permit Cycle
JURMP Inception through Fiscal Year 2005

	HA 907.1			HA 908.2			HA 909.1			ENTIRE CITY		
	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	TOTAL FACILITIES	TOTAL FACILITIES INSPECTED	TOTAL INSPECTIONS
CATEGORY	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	FACILITIES	FACILITIES INSPECTED	NUMBER OF INSPECTIONS	TOTAL FACILITIES	TOTAL FACILITIES INSPECTED	TOTAL INSPECTIONS
Auto Repair	37	37	50	16	16	26	-	-	-	53	100%	76
Equipment Repair	4	4	4	3	3	3	-	-	-	7	100%	7
Auto Paint/Body	4	4	9	-	-	-	-	-	-	4	100%	9
Auto Parking Lots	10	10	11	5	5	5	1	1	1	16	100%	17
Fueling	13	13	17	5	5	6	-	-	-	18	100%	23
Pest Control	2	2	2	-	-	-	-	-	-	2	100%	2
Eating Places	87	87	114	34	34	49	2	2	3	123	100%	166
Landscaping	2	2	4	-	-	-	-	-	-	2	100%	4
Golf Courses & Other Rec. Facilities	3	3	3	1	1	1	1	1	1	5	100%	5
Port-A-Potty	1	1	1	-	-	-	-	-	-	1	100%	1
Other	21	21	23	12	12	15	1	1	1	34	100%	39
Totals	184	184	238	75	75	103	5	5	6	265*	100%	349

*Note: one mobile business included in the commercial inventories is not presented in this table because it cannot easily be classified as operating in one designated watershed. That business has been inspected once during the present Municipal Permit Cycle.

Figure 11.2
Water Consumption at Parks in the City of La Mesa

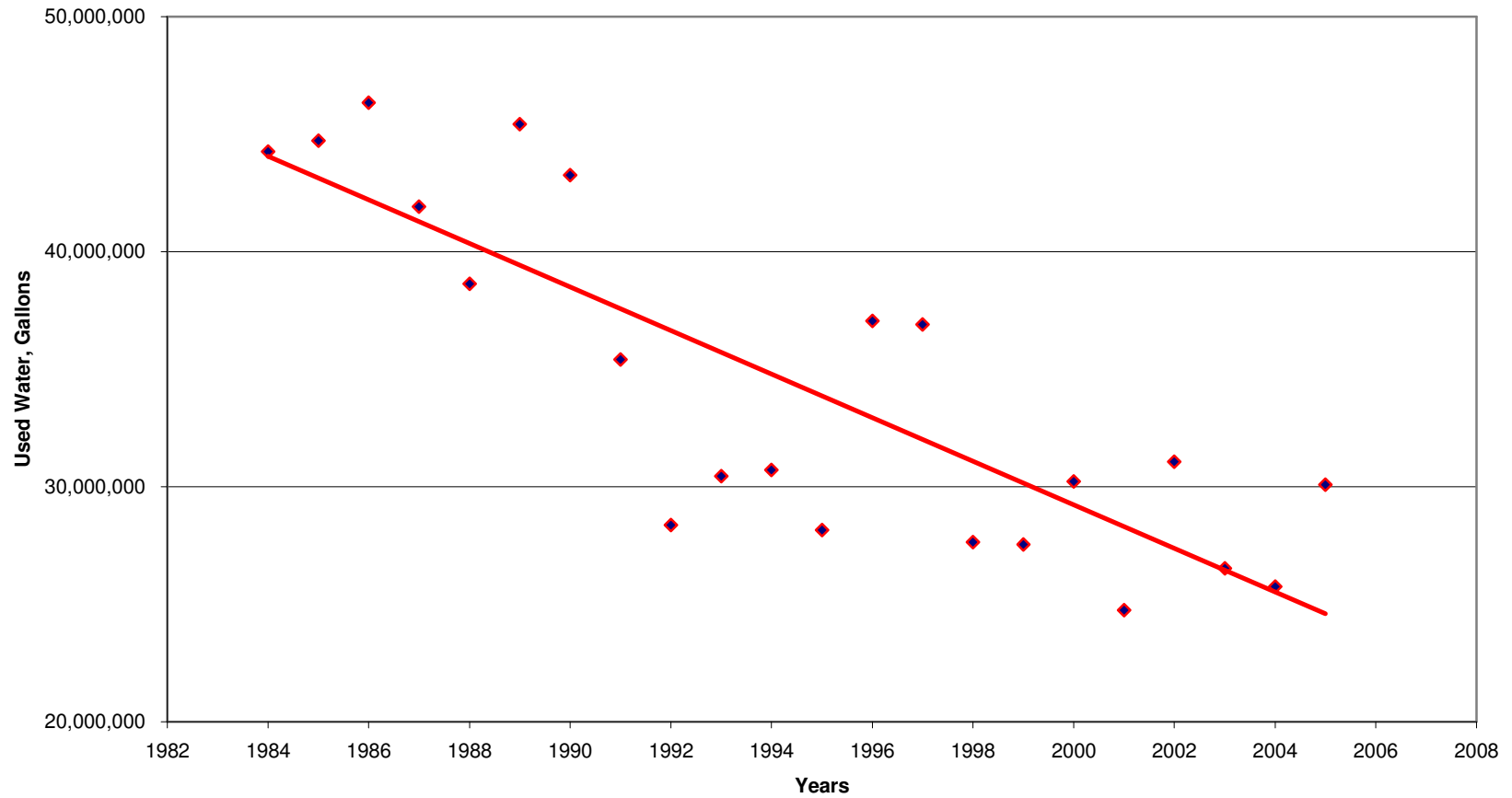


Figure 11.3
Average of Tested Constituents, 1993-2006

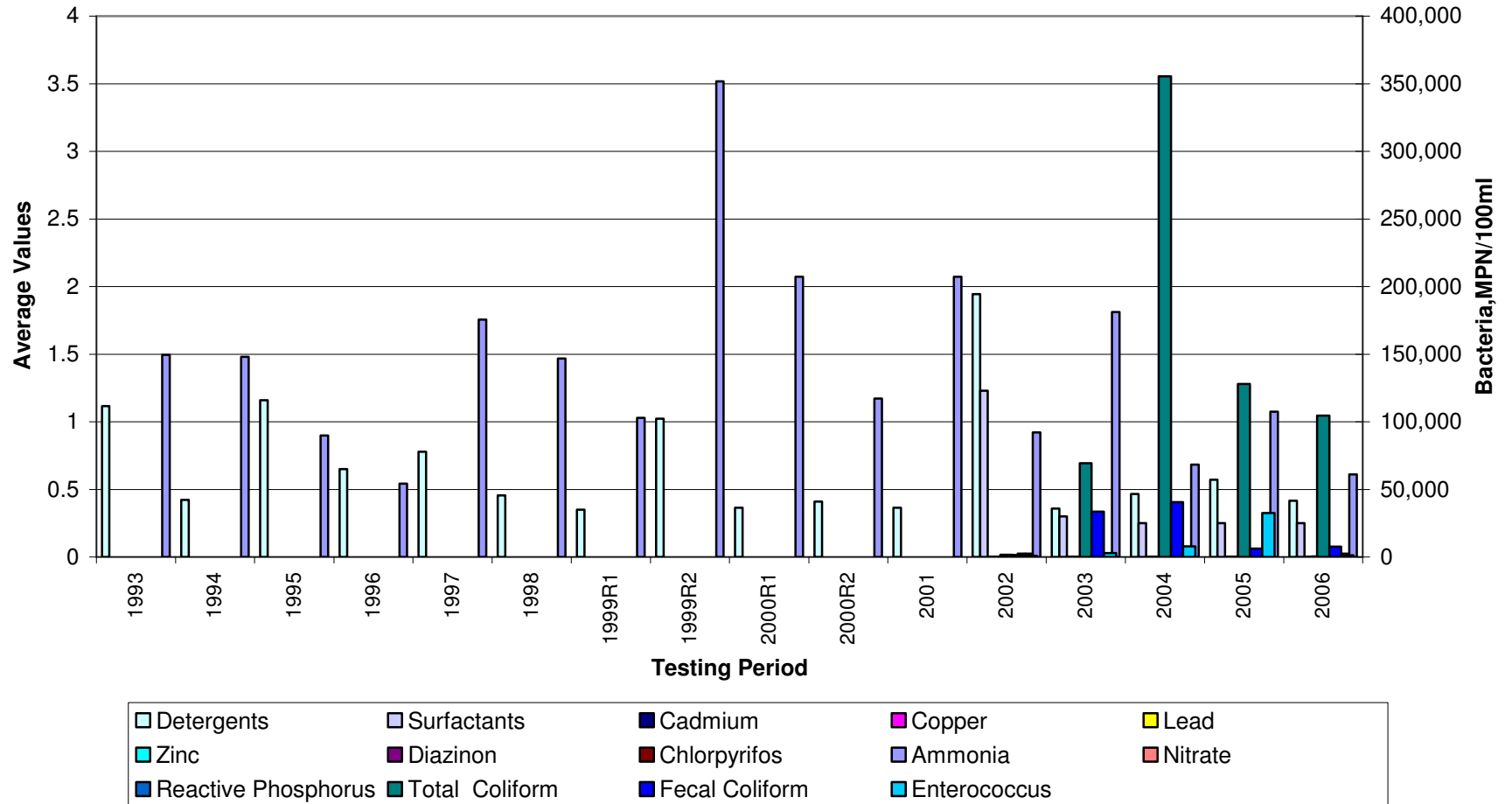


Figure 11.4
City of La Mesa, Ammonia 1993-2006

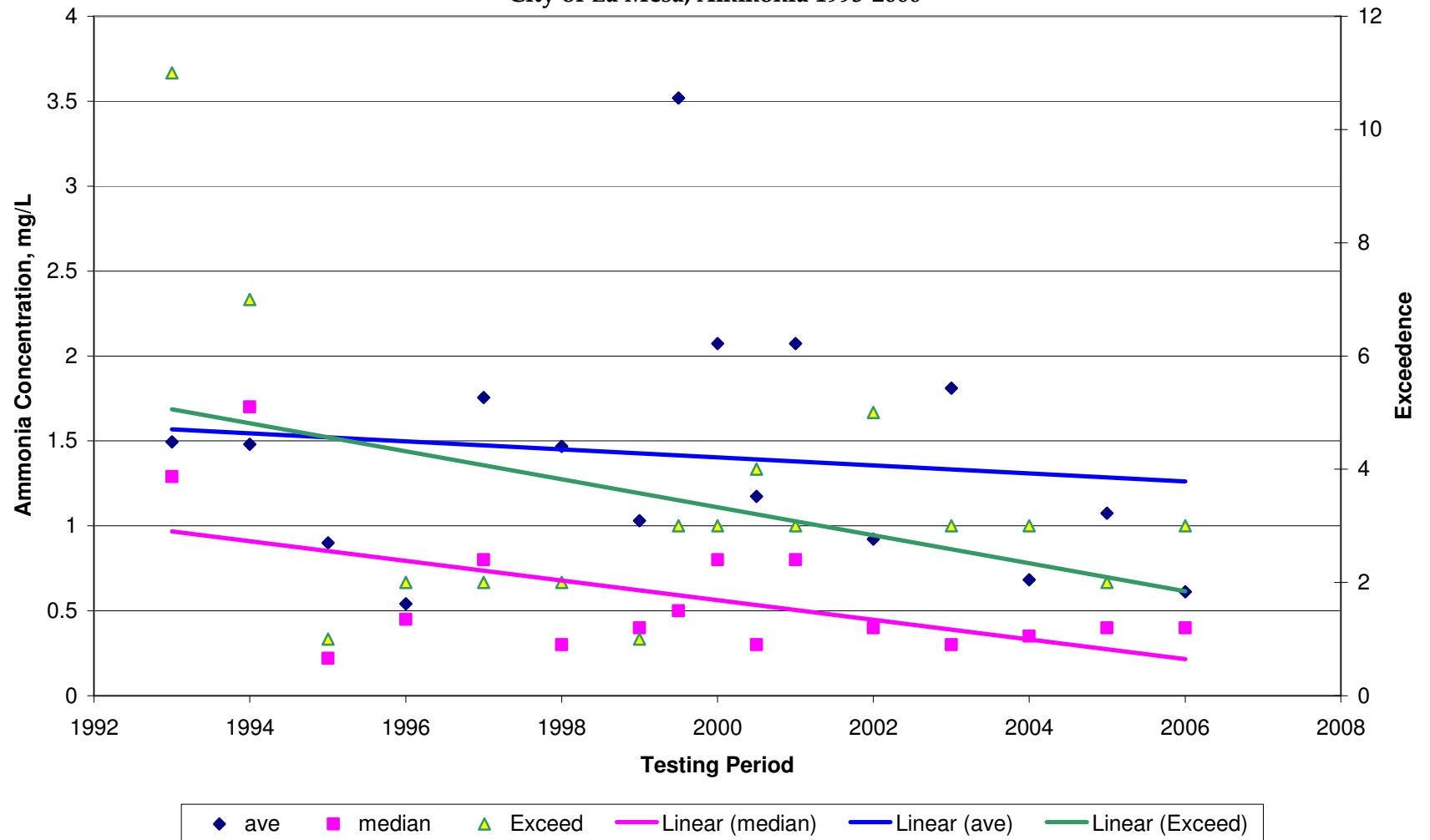


Figure 11.5
City of La Mesa, Detergents 1993-2006

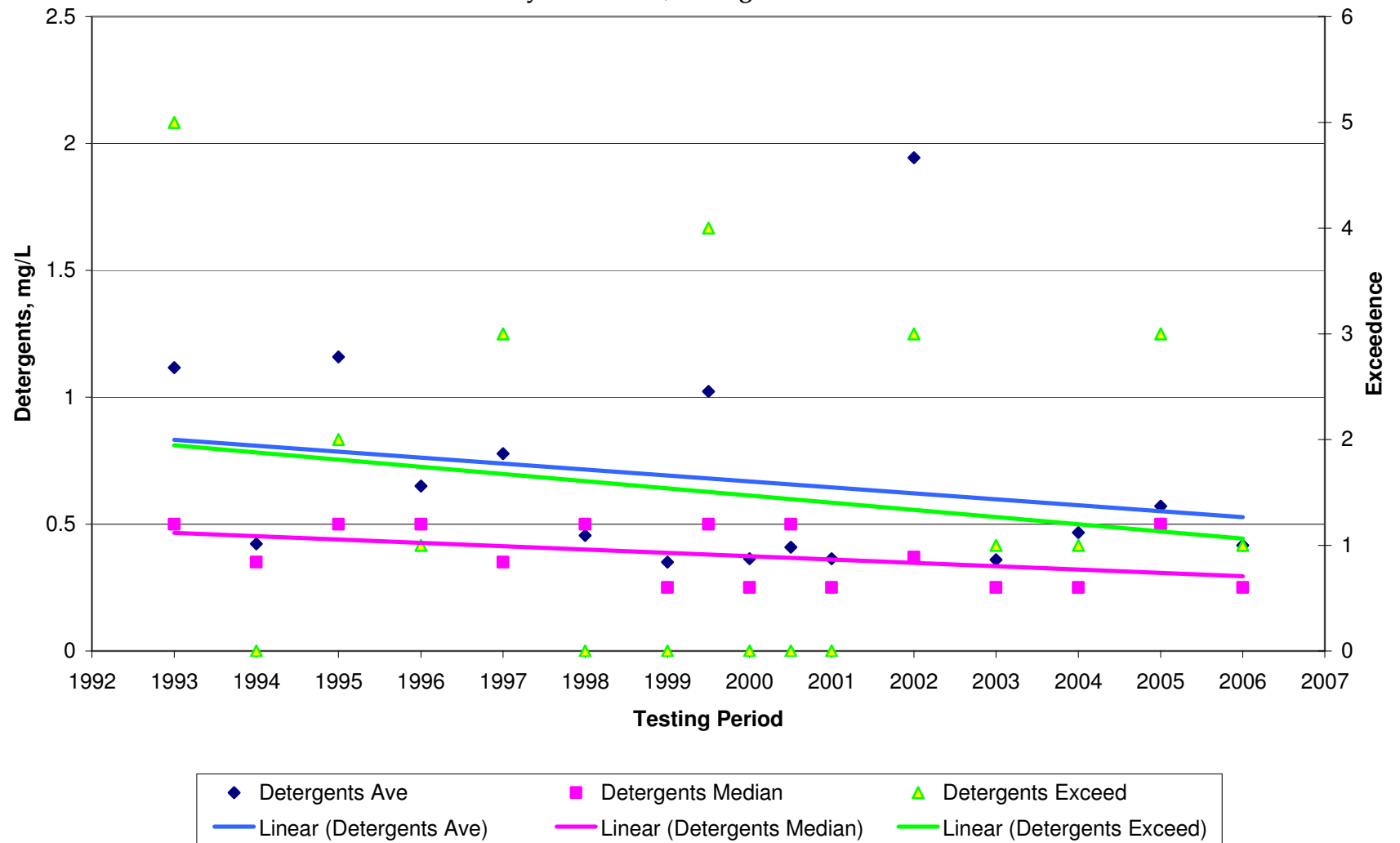
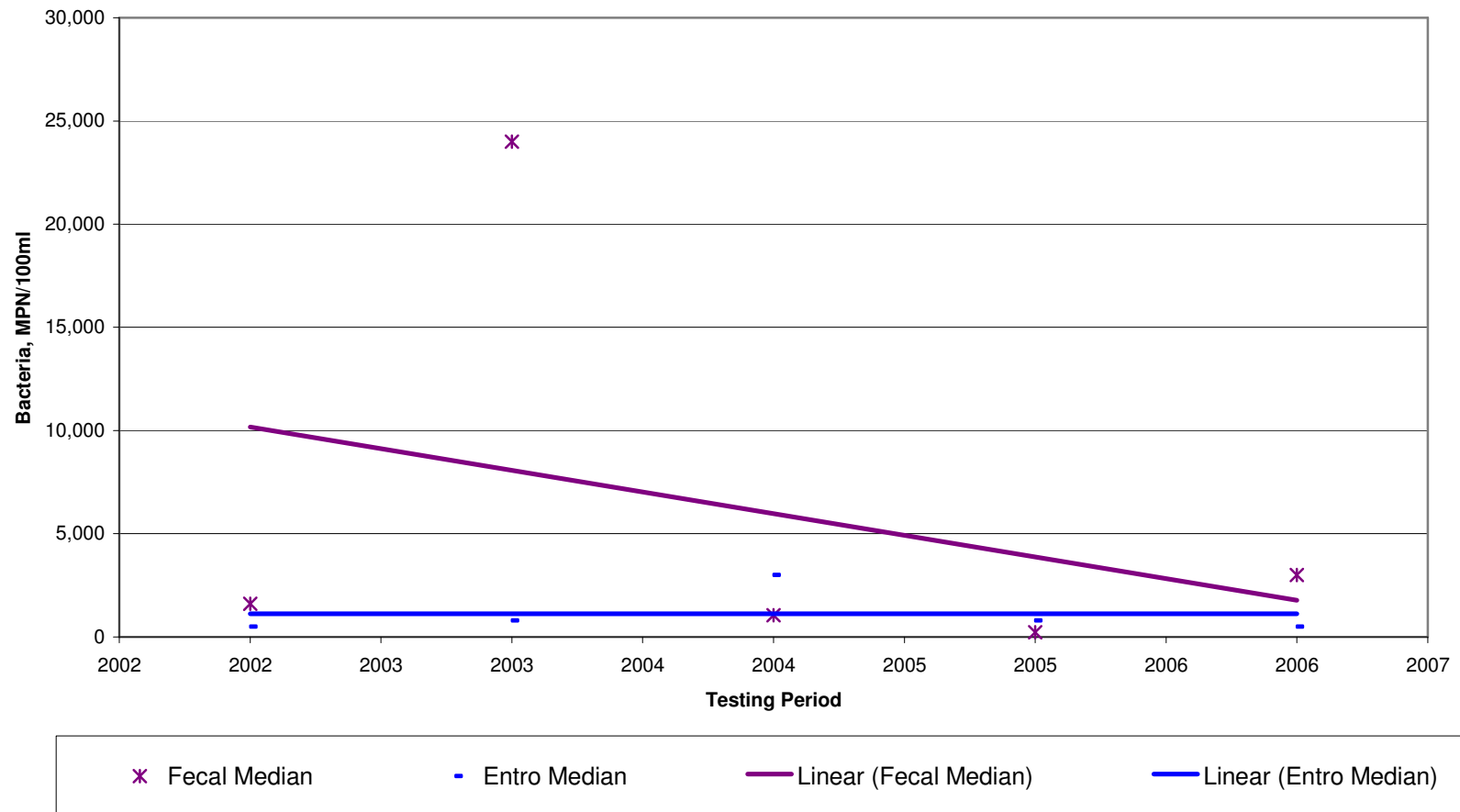


Figure 11.6
Fecal Coliform and Enterococcus Bacteria 2002-2006



12 FISCAL ANALYSIS

The City's Sanitation Fund provides funding for the Storm Water Program. The funding mechanism to implement this program is delineated in Section 12 of the 2002/2003 JURMP Annual Report. There have not been any changes to this funding mechanism during this reporting period. The actual expenditures in 2005/2006 were \$599,042. Note that the City's payment for the 2005/2006 regional wet weather monitoring costs was not paid until after the end of the 2005/2006 reporting period, resulting in an abnormally low expenditure for the Permit Fees & Wet Weather Monitoring line item, which is typically around \$60,000. The pattern of one year's wet weather monitoring fees being paid in the following reporting period is expected to continue. The proposed budget for the 2006/2007 Fiscal Year is \$644,991. The itemized costs within five different categories are presented in Table 12.1.

Table 12.1
Itemized Expenditures and Budget for Fiscal Years 05/06 and 06/07

Storm Water Program Fiscal Analysis	Expenditures FY 05/06	Budget FY 06/07
<i>Engineering Division</i>		
Program Management	\$ 70,150	\$ 73,200
Land Use	\$ 4,800	\$ 5,150
Construction	\$ 12,270	\$ 12,840
Existing Development (Insp/Enforcement)	\$ 24,110	\$ 24,890
Education	\$ 7,430	\$ 7,500
IC/ID	\$ 14,860	\$ 15,000
Admin	\$ 920	\$ 920
<i>Public Works Operations</i>		
Sanitation (SSO/MS4 Cleaning)	\$ 102,230	\$ 107,370
Streets Division	\$ 3,721	\$ 3,907
Parks Division	\$ 2,346	\$ 2,464
<i>Equipment & Supplies</i>		
Storm Drain Pipes & Supplies, etc.	\$ 20,845	\$ 20,930
Vactor Truck	\$ 27,490	\$ 27,770
<i>Best Management Practices</i>		
Street Sweeping	\$ 186,750	\$ 188,050
Public Education	\$ 15,000	\$ 15,000
Curb Inlet Retrofit	\$ 30,000	\$ 30,000
<i>Miscellaneous</i>		
Consultant Services	\$ 35,000	\$ 40,000
Permit Fees & Wet Weather Monitoring	\$ 37,224	\$ 65,000
Training & Development	\$ 3,895	\$ 5,000
Total	\$ 599,042	\$ 644,991

13 SPECIAL INVESTIGATIONS

RAINBOW STEEL

Rainbow Steel, located at 8332 Case Street in the City of La Mesa, is a business specializing in structural steel fabrication. A history of general BMP problems and noncompliance with Industrial Permit requirements at this facility led the City to issue several enforcement actions, including verbal warnings, NOV, and the withholding of business license renewal. After observing continued noncompliance despite these actions, the City contacted the RWQCB to instigate more stringent enforcement measures. The City scheduled a meeting with the RWQCB, during which it presented background information on the site, detailed the enforcement actions already taken, and requested assistance.

Rainbow Steel was first inspected in May 2003, at which time the inspector noted that this business was unconditionally subject to the Industrial Permit and was required to file for coverage. The inspector also recommended 10 corrective actions resulting from the general state of the facility. In August 2003, the business was issued an NOV with 10 items requiring action. Through 2005, the business remained in violation of Industrial Permit requirements; and although permit coverage was obtained at the end of 2003, no SWPPP or Monitoring Program had been developed at the time of an inspection on June 20, 2005. Furthermore, since 2003, pollutants associated with metal fabricating and rock grinding activities had been actively discharging into the storm water conveyance system in violation of the Industrial Permit and the City's Storm Water Ordinance, and no BMPs had been developed to reduce pollutant discharge. A BMP violation was therefore issued, and another NOV was issued by the City on June 30, 2005. Upon a follow-up inspection on August 17, 2005, the same deficiencies were noted and a third NOV was issued. The City withheld Rainbow Steel's business license on November 8, 2005, as a result of continued non-compliance.

The City pursued further action via the RWQCB in August 2005. As a result, the Regional Board inspected the facility itself on January 19, 2006. Two samples of runoff were taken during the 2005/2006 wet season. At the time of the inspection, there were significant scrap, intermediate, and raw materials being stored outdoors, unprotected, directly above an open storm water concrete channel. The investigation also revealed poor housekeeping practices, significant litter, and improperly stored liquid containers. The first sample of runoff, taken on February 28, 2006, indicated elevated levels of aluminum, iron, and zinc. The second sample, from April 14, 2006, showed elevated TSS, specific conductance, nitrate, aluminum, iron, and zinc.

Pursuant to these findings of noncompliance with the Industrial Permit, including not having a SWPPP and poor BMP implementation, the Regional Board issued Cleanup and Abatement Order No. R9-2006-0026 in April 2006. This Order required Rainbow Steel to immediately cease all illegal discharges and comply with all requirements of the Industrial

Permit. The Cleanup and Abatement Order also required Rainbow Steel to submit a technical report by June 30, 2006, showing that BMPs, a SWPPP, and a monitoring plan had been developed and implemented. The monitoring plan was to include sampling after every significant rainfall event at all storm water inlet and discharge points until the business demonstrated that BMPs were effective in reducing pollutant discharge. Lastly, the business was required to submit a status report within seven days of every significant rainfall documenting compliance at the site with Industrial Permit and Cleanup and Abatement Order requirements.

After the Cleanup and Abatement Order was issued, Rainbow Steel hired a consultant to aid it with coming into compliance, and a SWPPP was developed. The Regional Board was anticipated to re-inspect the facility to assess compliance in late 2006.

ADDITIONAL WATER QUALITY MONITORING

The City of La Mesa is situated in a unique hydrologic setting that spans three watersheds: the San Diego River Watershed (Hydrologic Unit 907), the Pueblo San Diego Watershed (Hydrologic Unit 908), and the Sweetwater River Watershed (Hydrologic Unit 909). From a regulatory perspective, both the Pueblo and Sweetwater watersheds are included in the larger San Diego Bay Watershed Management Area. Runoff from the City is generated from five drainage basins as presented in the following table. The Lemon Grove Basin and the Lake Murray Basin constitute only a very small portion of the City.

Table 13.1
Drainage Basins and Receiving Water Bodies

DRAINAGE BASIN	PERCENTAGE OF CITY AREA	HYDROLOGIC UNIT	RECEIVING WATER BODY
Alvarado	51	907	San Diego River
University	28	908	Chollas Creek
Spring Valley	14	909	Sweetwater River
Lemon Grove	6	908	Chollas Creek
Lake Murray	1	907	San Diego River

The Alvarado Drainage Basin, the University Drainage Basin, and the Spring Valley Drainage Basin each discharge into a different receiving water body within the three major watersheds mentioned above. Both the Sweetwater River and Chollas Creek eventually flow to San Diego Bay.

To evaluate the quality of the non-storm water flow that leaves the City of La Mesa and eventually reaches these receiving water bodies, D-MAX performed water quality analyses at four major discharge points along the downstream borders of the City. The City of La Mesa and D-MAX worked together to determine the final sampling locations that would represent each of the City's three major drainage basins. Each sampling location is at the

downstream end of the major conveyance structure(s) in each of the major drainage basins. Note that two locations were selected for the Spring Valley Drainage Basin because there are two separate major structures that convey flow from the City to downstream areas. One of the selected sampling locations, Station Spring Valley Downstream East, lies slightly to the east of the City of La Mesa within an unincorporated area of the County, but virtually all of the sampled flow originates in the City of La Mesa. The selected sampling location was the most easily accessible downstream area where representative flow from the conveyance could be sampled. All sampling locations are shown in Figure 13.1, and figures 13.2 through 13.5 show photos of the individual sampling locations.

All water samples taken during this study were evaluated for the same suite of constituents measured in the City's annual Dry Weather Monitoring Program. Following the Dry Weather Monitoring Program procedure, flow, temperature, pH, conductivity, turbidity, nitrate, ammonia, orthophosphate, and MBAS were measured in the field. Additional laboratory testing evaluated total hardness, dissolved metals (cadmium, copper, lead, and zinc), chlorpyrifos, diazinon, surfactants, oil and grease, and total coliform, fecal coliform, and enterococcus bacteria. The San Diego River is included in the 2002 Clean Water Act Section 303(d) List of Water Quality Limited Segments (303(d) List) for impairments associated with dissolved oxygen and total dissolved solids (TDS). Water bodies appearing on this list are often referred to as being "303(d) listed." Because dissolved oxygen and TDS are not typically measured during the Dry Weather Monitoring Program, additional analyses for those two constituents were also conducted for Site Alvarado Downstream. As dissolved oxygen is easily measured via a field meter and can be a helpful indicator of water quality, dissolved oxygen was also measured at the other three sites. Note that the aforementioned suite of constituents includes the watershed Constituents of Concerns (COC) as identified in the San Diego Bay or San Diego River WURMPs, as applicable, and any constituents for which the corresponding receiving water body is 303(d) listed.

Sampling results were compared to the Dry Weather Monitoring Program action levels and to the Water Quality Objectives (WQO) of the Water Quality Control Plan for the San Diego Basin (Basin Plan). Specific WQOs do not exist for some of the constituents tested in this study, and some WQOs require constituents to be at a given level a certain percent of the time, which does not translate well to the single testing event for each site in this study. Of the various sampling points considered in this study, only one, Site Alvarado Downstream, could be considered to lie within a water body that has been identified and assigned beneficial uses and WQOs in the Basin Plan. Because Dry Weather Monitoring Program action levels were developed specifically for evaluating dry weather flows in storm water conveyances, which are typically not water bodies with specifically established WQOs, this study discusses the monitoring results in terms of the dry weather action levels as well as the WQOs. The results of this study are tabulated at the end of the report, preceded by a brief summary and discussion of the results.

Alvarado Drainage Basin

The Alvarado Drainage Basin collects water from the northern half of the City of La Mesa. The collected water is primarily conveyed via the Alvarado Channel, which runs through the City of San Diego to the west of the City of La Mesa, ultimately reaching the San Diego River. The San Diego River is 303(d) listed for fecal coliform, low dissolved oxygen, phosphorus, and TDS. According to the 2003/2004 San Diego River WURMP Annual Report, high priority COCs for the watershed as a whole include bacterial indicators, TDS, pH, phosphorus, and dissolved oxygen. Other COCs include copper, diazinon, eutrophication, benthic community degradation, and turbidity. Most of these constituents were measured directly. Eutrophication is often the result of excessive nutrient levels, which were measured in this study. Benthic community degradation reported in the watershed is not known with certainty to be driven by a particular chemical pollutant, and it is believed to have been listed based on tests in water bodies outside the City of La Mesa. The waters of Alvarado Canyon are designated in the Basin Plan as having a variety of beneficial uses, the most notable of which are warm water habitat (WARM), contact recreation (REC-1), non-contact recreation (REC-2), and wildlife habitat (WILD) beneficial uses. Note that the waters of the Alvarado Channel in La Mesa are not known to be utilized for recreation. The sampling point for the Alvarado Channel Drainage Basin was in the Alvarado Channel, just north of Alvarado Road and south of I-8, east of 70th Street. Sampling results at this location were generally below the action levels established for the Dry Weather Monitoring Program. Diazinon and copper were not detected, and pH was in the normal range of 6.5 to 9.0. Nutrient levels, including orthophosphate, were lower than the action levels established for the Dry Weather Monitoring Program, but were above the Basin Plan WQOs. At 2.50 NTU, turbidity was well below the upper limit WQO of 20 NTU. The measured TDS value was just below the WQO for Hydrologic Sub-Area 907.11, which includes the Alvarado Channel. The dissolved oxygen measurement of 4.6 mg/L fell below the WARM WQO lower limit of 5.0 mg/L. As mentioned in the introduction of this study and as detailed in the notes to the table below, there is a great difference between the bacterial indicator standards found in the Basin Plan and those found in the Dry Weather Monitoring Program. At Site Alvarado Downstream, the fecal coliform and enterococcus bacteria levels were above the stringent REC-1 WQOs. No applicable total coliform WQO is present in the Basin Plan. Total coliform bacteria were found at counts in excess of the 50,000 MPN/100 mL Dry Weather Monitoring Program action level, but fecal coliform and enterococcus bacteria were below the action levels established for these indicators.

Spring Valley Drainage Basin

The two sampling points in the Spring Valley Drainage Basin are from a concrete channel in the west of the basin and a natural creek in the eastern part of the basin. These conveyances lie within the Sweetwater River hydrologic unit, which is part of the greater San Diego Bay Watershed Management Area. The 2003/2004 San Diego Bay WURMP Annual Report lists the COCs for the watershed as a whole as copper, zinc, diazinon, sediment/turbidity, and bacterial indicators, especially fecal coliform. The Sweetwater River itself is not on the 303(d) list.

The water from the Spring Valley Drainage Basin sites tested below all dry weather action levels except for the total coliform bacterial indicator. Turbidity, pH, and detergents all met their respective WQOs. The sampling locations have not been formally assigned a WARM or cold water habitat (COLD) beneficial use, so no clear dissolved oxygen WQO exists for the Spring Valley locations. It is worth noting, though, that both measured dissolved oxygen concentrations were relatively high, meeting even the more conservative COLD WQO. Nutrient levels were low by dry weather standards, although they were greater than the WQOs for these constituents. Note that because the sampling locations are in the storm water conveyance system, not in defined inland surface waters, the WQOs may not be directly applicable to the water quality at these stations. Among constituents evaluated by laboratory testing, only bacteria were detected. At both sites the fecal coliform and enterococci counts were well below their respective dry weather action levels, but the total coliform counts for both locations exceeded the dry weather action level. As the sampled conveyances are not identified as having REC-1 or REC-2 beneficial uses, no clear bacteria WQOs exist for these samples. It is worth noting that the combined flow from both Spring Valley Drainage Basin sampling locations was less than 15 gallons per minute (gpm), a relatively small contribution to the downstream receiving water body.

University Drainage Basin

The University Drainage Basin sampling point was selected at the downstream end of the University Channel, at the intersection of 69th Street and Boulevard Drive. At this location the channel has a natural riparian creek configuration. Flow from the University Channel eventually discharges to Chollas Creek in the Pueblo San Diego sub-watershed of the San Diego Bay Watershed. Chollas Creek is 303(d) listed for bacterial indicators, diazinon, copper, cadmium, lead, and zinc. Note that the recent draft of the revised 303(d) list, which has not yet been approved by the Environmental Protection Agency (EPA), proposes removing lead from the 303(d) listing for Chollas Creek. Since the University Drainage Basin lies within the San Diego Bay Watershed, the watershed COCs for the University Drainage Basin are the same as those listed for the Spring Valley Drainage Basin above.

With the exception of a low level of dissolved zinc, the 20 gpm flow tested in this study contained no detectable levels of diazinon, chlorpyrifos, or dissolved metals. The zinc concentration was only slightly above the method reporting limit of 0.020 mg/L, and it was well below the CTR benchmark. None of the parameters measured in the field exceeded their respective dry weather action levels, and turbidity, pH, and detergents met their WQOs. Similar to the other sites monitored in this study, nutrients appeared to be above the WQOs, although the nutrient WQOs in the Basin Plan do not correspond exactly to the constituents measured in this study. This is further explained in the notes to the tables below. The University Channel has not been assigned a WARM or COLD beneficial use in the Basin Plan, so no clear dissolved oxygen WQO exists for this location. Fecal coliform and enterococcus bacteria were present at levels well below the dry weather action levels, but the total coliform count was above the action level. As the sampled conveyance is not

identified as having REC-1 or REC-2 beneficial uses, no clear bacteria WQOs exist for these samples.

FUTURE PLANS FOR SPECIAL INVESTIGATIONS

In the future, the City may consider conducting additional water quality monitoring under wet weather conditions. The monitoring locations would include at least one site each toward the downstream ends of the two main conveyances in the City, Alvarado Channel and University Channel. Flow weighted composite sampling has been considered for this kind of project, but field investigation of potential sites by a flow measurement device vendor has found that the selected sampling sites are not suitable for accurate flow measurement. Therefore, collecting time weighted composite samples on a 15 to 20 minutes interval at each site is the most likely method of sampling. Collected samples would be sent to a California Department of Health Services certified laboratory to be analyzed for a variety of constituents. The constituent lists are anticipated to be based primarily on downstream receiving water body 303(d) listings and watershed constituent of concern listings, as reported in the applicable WURMP.

Table 13.2
Specifications of Sampling Locations

Site ID	Location	Conveyance	Land Use Primary	Land Use Secondary	Hydrologic Unit	Latitude	Longitude
Alvarado Downstream	Alvarado Rd. inside San Diego RV Resort, next to Trolley Station.	Concrete Channel	Commercial	Residential	907	N32.46331°	W117.02466°
Spring Valley Downstream-East	~ 50 ft west of Citradora Dr. and Camino Paz intersection	Natural Creek	Residential	Park	909	N32.75495°	W116.99998°
Spring Valley Downstream-West	Spring St. and Spring Gardens Rd. intersection, inside La Mesa Seventh-Day Adventist Church	Concrete Channel	Residential	Park	909	N32.75486°	W117.01317°
University Downstream	69 th St. and Boulevard Dr. intersection	Natural Creek	Commercial	Residential	908	N32.75473°	W117.04813°

Table 13.3
Summary of Field Analytical Results

Site	Date	Time	Flow	Temp. °C	pH	Turbidity NTU	Conductivity µmhos/cm	Detergents mg/L MBAS	Ammonia mg/L NH ₃ -N	Nitrate mg/L NO ₃ -N	Ortho- phosphate mg/L PO ₄ -P	Dissolved Oxygen mg/L
Alvarado Downstream	9/29/05	16:05	52	26.1	8.7	2.50	2620	0.25	0.3	2.50	0.10	4.6
Spring Valley Downstream-East	9/29/05	13:15	1	28.6	8.8	4.10	2730	0.25	0.2	1.25	nd	12.7
Spring Valley Downstream-West	9/29/05	14:25	10	24.4	7.8	2.92	2330	0.25	0.2	3.80	0.26	6.5
University Downstream	9/29/05	15:20	20	26.5	8.0	2.93	3080	0.25	0.3	7.50	0.20	4.7
Dry Weather Monitoring Program Action Levels				BPJ	6.5- 9.0	BPJ	BPJ	1.0	1.0	10.0	2.0	NE
Water Quality Objectives				NNE	6.5- 8.5	20	NE	0.5	0.025*	*	*	5.0**

*See Table 13.4 for acronym definitions and footnotes

Table 13.4
Summary of Laboratory Analytical Results

Site	Date	Time	Surfactants mg/l MBAS	Oil and Grease mg/l	Total Hardness mg/l CaCO ₃	Cadmium mg/l	Copper mg/l	Lead mg/l	Zinc mg/l	Diazinon µg/L	Chlorpyrifos µg/L	Total Coliform MPN/100 mL	Fecal Coliform MPN/100 mL	Enterococcus MPN/100 mL	Total Dissolved Solid mg/L
Alvarado Downstream	9/29/05	16:05	nd	nd	663	nd	nd	nd	nd	nd	nd	130,000	8,000	300	1490
Spring Valley Downstream-E	9/29/05	13:15	nd	nd	881	nd	nd	nd	nd	nd	nd	300,000	2,200	3,000	nt
Spring Valley Downstream-W	9/29/05	14:25	nd	nd	659	nd	nd	nd	nd	nd	nd	240,000	8,000	140	nt
University Downstream	9/29/05	15:20	nd	nd	725	nd	nd	nd	0.023	nd	nd	300,000	500	1,300	nt
Reporting Limits			0.5	5	10	0.005	0.005	0.005	0.020	0.05	0.05	20	20	20	20
Dry Weather Monitoring Program Action Levels			1.0	15	NE	CTR	CTR	CTR	CTR	0.5	0.5	50,000	20,000	10,000	NE
Water Quality Objectives			0.5	NNE	NE	0.005	NE	NE	NE	NNE	NNE	NE‡	400 or 4,000‡	151‡	1,500

Notes:

nd = not detected
nt = not tested
BPJ = Best Professional Judgment
NE = No action level/objective established
NNE = No numerical WQO established. Some WQOs call for parameter values that not adversely affect beneficial uses or other non-numerical criteria.
CTR = California Toxics Rule
* = The WQOs for nitrogen, ammonia, and phosphorus do not align well with the action levels of the Dry Weather Monitoring Program. The WQO for ammonia is 0.025 mg/L of un-ionized ammonia (NH₃ only), whereas ammonium and ammonia (NH₄⁺ and NH₃) are detected by the dry weather testing method. There is a WQO for combined total nitrogen and phosphorus which is not entirely numerical, but implies a maximum objective of 0.05 mg/L. This is less than the detection limit of the methods used in the Dry Weather Monitoring Program.

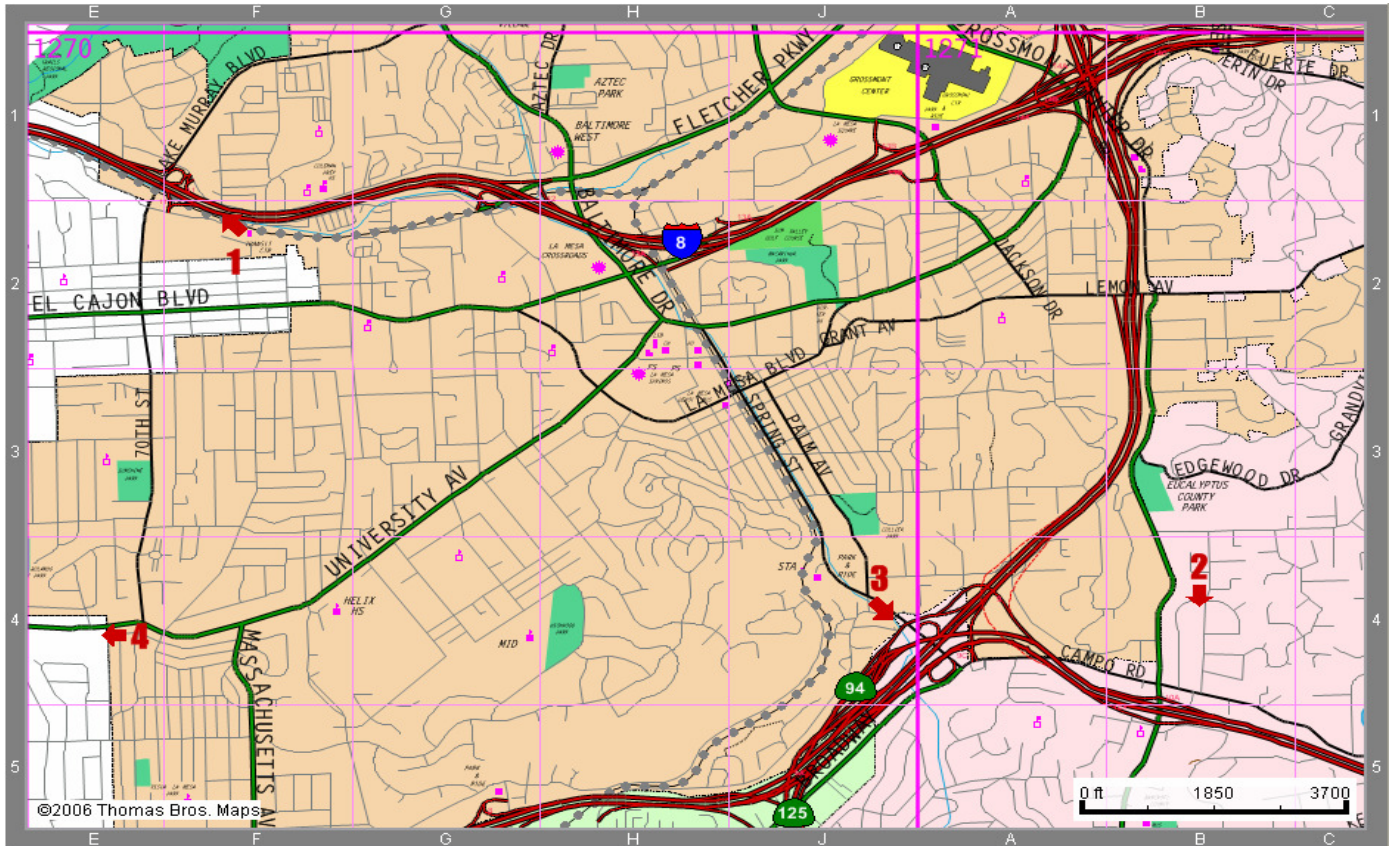
**

The WQO for dissolved oxygen is 5.0 mg/L for waters with a WARM beneficial use and 6.0 mg/L for waters with a COLD beneficial use. None of the sampling points are in water bodies with a designated COLD beneficial use.

‡

The listed value for enterococci corresponds to infrequently used contact recreation areas (i.e., with a REC-1 beneficial use); the Basin Plan does not have an enterococci WQO for areas that are not designated as having a beneficial use of REC-1. The WQO for fecal coliform is somewhat complex, as it is described in terms of average or maximum values over a series of samples. Essentially, the REC-1 WQO for fecal coliform is 400 MPN/100 mL, the REC-2 WQO is 4,000 MPN/100mL, and clear WQOs for other freshwater water bodies are not clearly defined. With the exception of areas that have shellfish harvesting beneficial uses, clear WQOs for total coliform bacteria are not present in the Basin Plan.

Figure 13.1
Sampling Locations



Map ID	Site ID	Location
1	Alvarado Downstream	Alvarado Rd. inside San Diego RV Resort, next to Trolley Station.
2	Spring Valley Downstream-East	~ 50 ft west of Citradora Dr. and Camino Paz intersection
3	Spring Valley Downstream-West	Spring St. and Spring Gardens Rd. intersection, inside La Mesa Seventh-Day Adventist Church
4	University Downstream	69 th St. and Boulevard Dr. intersection

Figure 13.2
Alvarado Downstream Sampling Location



Figure 13.3
Spring Valley East Sampling Location



Figure 13.4
Spring Valley West Sampling Location



Figure 13.5
University Downstream Sampling Location



14 CONCLUSIONS AND RECOMMENDATIONS

Having completed the 2005/2006 fiscal year, the City is entering what it anticipates will be the last year under which its storm water program will be regulated by RWQCB Order 2001-01. The RWQCB is likely to reissue the Municipal Permit during the 2006/2007 fiscal year. Assuming the reissuance occurs in early 2007, the City will likely be able to begin adjusting its program in anticipation of new requirements not present in Order 2001-01. Additionally, continued efforts to refine programs already begun under the current Municipal Permit will be undertaken. The City has created a number of new programs and activities designed to educate and involve its residents. The City plans to continue along this path. New programs targeting mobile business compliance have begun, and the City has inspected every inventoried high priority commercial and industrial business in its jurisdiction. The City will also continue to conduct special studies and investigations when necessary. This combination of creating new programs and refined implementation of existing programs is believed to be effective in reducing or eliminating pollutant runoff, and the City plans to continue these efforts. The City is also committed to developing and improving its data collection and assessment procedures. The City will continue to work with the other Copermittees toward the goal of crafting methods yielding clearer appraisals of program effectiveness.

EXHIBIT C

City of San Diego
Urban Runoff Management Plan
Fiscal Year 2006 Annual Report



THE CITY OF SAN DIEGO

January 31, 2007

Phil Hammer
Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Subject: City of San Diego Urban Runoff Management Plan FY 2006 Annual Report and
Response to Review of FY 2005 JURMP Annual Report (SWU:10-5015.02:hammp)

Dear Mr. Hammer:

Attached please find paper and electronic copies of the City of San Diego's Urban Runoff Management Plan Fiscal Year 2006 Annual Report, and associated Appendices, submitted as part of the County of San Diego's Unified Jurisdictional Urban Runoff Management Program Annual Report.

The Annual Report also contains responses to the comments provided by the Regional Board in its September 15, 2006 letter (SWU:10-5015.02:hammp) to the City. Text in the Annual Report addressing a comment is followed in parentheses by the comment's corresponding number in, and the Regional Board's code number for, the September 15, 2006 letter.

If you have any questions, please contact Drew Kleis, Storm Water Specialist, at (619) 525-8623.

I certify under penalty of law that this Urban Runoff Management Plan Fiscal Year 2006 Annual Report and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Chris Zirkle
Deputy Director

CZ/up

Attachments: 1. Fiscal Year 2006 Urban Runoff Management Plan Annual Report
(with Appendices)



Storm Water Pollution Prevention Program

1970 B Street, MS 27A • San Diego, CA 92102
Hotline (619) 235-1000 Fax (619) 525-8641

TABLE OF CONTENTS

1	Executive Summary	1
1.1	Program Accomplishments	1
1.1.1	Special Projects	1
1.1.2	Education and Outreach	3
1.1.3	Enforcement	3
1.1.4	Water Quality Monitoring	4
1.1.5	Development and Construction	4
1.1.6	Industrial and Commercial Programs	4
1.1.7	Municipal Activities	5
1.1.8	Focused Water Quality Efforts – Watershed Programs	5
1.2	Future Directions	6
1.3	Response to Regional Board Comment Letter (SWU:10-5015.02:hammp)	7
2	Introduction	1
2.1	Program Overview for Fiscal Year 2005	1
2.2	Report Organization	1
2.3	Reporting Period	2
3	Municipal	3
3.1	Priority Sources	3
3.2	Best Management Practice (BMP) Requirements	3
3.3	BMP Implementation	3
3.3.1	Municipal Areas/Activities	3
3.3.2	Training of Municipal Employees	19
3.4	Management of Pesticides, Herbicides, and Fertilizers	20
3.5	Municipal Facility Inspections	20
3.6	Enforcement and Compliance	21
3.6.1	Hotline Complaint Investigations	21
3.6.2	Enforcement Actions	21
3.7	Future Activities and Program Amendments	21
4	Industrial	24
4.1	Priority Sources	24
4.2	BMP Requirements	25
4.3	BMP Implementation	26
4.3.1	Education and Outreach	26
4.4	Enforcement and Compliance	26
4.4.1	Industrial Facility Inspections	27
4.4.2	Complaint Investigations	27
4.4.3	Reporting of Non-Compliant Sites	27
4.4.4	Enforcement Actions	27
4.5	Future Activities and Program Amendments	28
5	Commercial	29
5.1	Priority Sources	29
5.2	BMP Requirements	29
5.3	Commercial BMP Implementation	29
5.3.1	Education and Outreach	29

5.4	Compliance and Enforcement.....	31
5.4.1	Commercial Facility Inspections	31
5.4.2	Complaint Investigations	31
5.4.3	Reporting of Non-Compliant Sites	31
5.4.4	Enforcement Actions	31
5.5	Future Activities and Program Amendments.....	31
6	Residential.....	32
6.1	Priority Sources.....	32
6.2	BMP Requirements.....	32
6.3	Residential BMP Implementation.....	32
6.3.1	Education and Outreach.....	32
6.3.2	Household Hazardous Waste Program	33
6.3.3	Grease Disposal Program.....	33
6.4	Enforcement and Compliance.....	34
6.4.1	Residential Investigations	34
6.4.2	Enforcement Actions	34
6.5	Future Activities and Program Amendments.....	34
7	Land Use Planning for New Development	35
7.1	Long-Range Planning	35
7.1.1	General Plan.....	35
7.1.2	Community Plans.....	37
7.1.3	Street Design Manual.....	38
7.1.4	Drainage Design Manual	38
7.1.5	Source Water Protection Guidelines for New Development	38
7.1.6	Watershed & Resource Management Plans	38
7.2	Project Planning and Design.....	40
7.2.1	Storm Water Development Regulations	40
7.3	Education and Outreach.....	41
7.3.1	Fact Sheets	41
7.3.2	Websites	41
7.3.3	Training.....	42
7.4	Future Activities and Program Amendments.....	42
8	Construction.....	43
8.1	Priority Sources.....	43
8.2	BMP Requirements.....	43
8.3	BMP Implementation.....	43
8.3.1	Construction and Grading Approval Process.....	43
8.4	Enforcement and Compliance.....	46
8.4.1	Construction Site Inspections	46
8.4.2	Hotline Complaint Investigations	48
8.4.3	Enforcement Actions	48
8.4.4	Reporting of Non-Compliant Sites	49
8.5	Future Activities and Program Amendments.....	49
9	Enforcement.....	50
9.1	Legal Authority	50
9.2	Enforcement Actions	50

9.3	Findings.....	51
9.4	Future Activities.....	51
10	Monitoring	52
10.1	Dry Weather Monitoring.....	52
10.2	Urban Stream Bioassessment Monitoring	52
10.3	Long-Term Mass Loading Monitoring	52
10.4	Coastal Storm Drain Outfall Monitoring.....	52
10.5	Ambient Bay, Lagoon, and Coastal Receiving Water Monitoring.....	53
10.6	Toxic Hot Spots Monitoring in San Diego Bay.....	53
11	Illicit Discharge Detection and Elimination	54
11.1	Detection of Illicit Discharges and Connections	54
11.1.1	Monitoring for Illicit Discharges	54
11.1.2	MS4 Inspection	58
11.1.3	Sanitary Sewer Canyon Program.....	58
11.1.4	Hotline Calls/Referrals.....	59
11.2	Elimination of Illicit Discharges and Connections	59
11.2.1	Education	59
11.2.2	Complaint/Referral Investigations.....	59
11.2.3	Spill Prevention and Response.....	59
11.2.4	Enforcement.....	61
11.3	Facilitate Disposal of Hazardous Materials.....	62
11.3.1	Collection Facilities and Events.....	62
11.3.2	Education	62
11.4	Future Activities and Program Amendments.....	62
12	Education	63
12.1	Storm Water Division Training of Municipal Employees.....	63
12.1.1	General Storm Water Training.....	63
12.1.2	Activity-Specific Storm Water Training.....	63
12.1.3	Storm Water Division External Education and Outreach	63
12.1.4	Think Blue Campaign — FY 2006	64
12.1.5	Print Media.....	67
12.1.6	School Age Education – San Diego City Schools	67
12.1.7	Website	68
12.1.8	Hotline and Other Contacts.....	68
12.1.9	Speaker’s Bureau and Community Events	68
12.1.10	Think Blue Collateral Material Development and Distribution	70
12.2	General Education info from other City Departments	72
12.2.1	Water Department.....	72
12.2.2	Qualcomm Stadium	73
12.2.3	Park and Recreation Department	74
12.2.4	Development Services Department.....	74
12.3	Future Activities and Program Amendments.....	74
13	Public Participation.....	75
13.1	Public Participation.....	75
13.1.1	Airports: Brown and Montgomery.....	75
13.1.2	Development Services Department (DSD).....	75

13.1.3	Engineering & Capital Projects – Field Engineering Division	75
13.1.4	Metropolitan Wastewater Department	75
13.1.5	Planning Department	76
13.1.6	Police Department	77
13.1.7	Water Department	77
13.2	Future Activities and Program Amendments	78
14	Assessment of URMP Effectiveness	79
14.1	Methodology	79
14.2	Overall Program Assessment	79
14.3	Assessment of Program Components	82
14.3.1	Municipal	82
14.3.2	Industrial	83
14.3.3	Commercial	84
14.3.4	Residential	86
14.3.5	Land Use Planning	87
14.3.6	Construction	88
14.3.7	Monitoring	89
14.3.8	Enforcement	89
14.3.9	Illicit Discharge Detection and Elimination	90
14.3.10	Education	91
14.3.11	Public Participation	93
15	Fiscal Analysis	94
15.1	Fiscal Assessment	94
15.2	Grant and Other Funding for Special Studies	95
15.3	Funding Sources	96
15.3.1	General Fund	96
15.3.2	Enterprise Funds	96
15.3.3	Internal Service Funds	96
15.4	Future Projections	97
15.4.1	Alternative Storm Water Funding Study	97
16	Special Projects	98
16.1	Bacteria Impaired Waters TMDL Project 1 for Beaches and Creeks	98
16.2	Draft Investigation Order No. R9-2005-0216 for the Discharge of Bacteria, Nutrients and Sediments into Impaired Lagoons and Adjacent Beaches and Creeks	98
16.3	Cleanup & Abatement Order No. R9-2005-0126 for the San Diego Bay Shipyards Contaminated Sediments	98
16.4	Mission Bay Bacteria TMDL	99
16.5	Mission Bay Clean Beaches Project – Mission Bay Central Computerized Irrigation System	99
16.6	Rose and Tecolote Creeks Water Quality Improvement Project	99
16.7	Pacific Beach Point Study	99
16.8	Mouths of Chollas and Paleta Creeks TMDL for Toxicity and Degraded Benthic Community	99
16.9	Switzer Creek, Downtown Anchorage and B Street/Broadway Piers TMDL for Toxicity and Degraded Benthic Community	99
16.10	Diazinon Monitoring in the Chollas Creek Watershed	99

16.11	Chollas Creek Dissolved Metals TMDL.....	100
16.12	Integrated Pest Management (IPM) Education and Outreach Project.....	100
16.13	Chollas Creek Water Quality Protection & Habitat Enhancement Project.....	100
16.14	San Diego Watersheds Common Ground Project.....	100
16.15	Regional Harbor Monitoring Program.....	100
16.16	San Diego Bay Harbor Bacteria TMDL	100
16.17	San Diego River – Ocean Beach Water Quality Improvement Project.....	100
16.18	San Diego River Restoration Project.....	100
16.19	San Diego River Park Master Plan	100
16.20	San Diego Marine Life Refuge Area of Special Biological Significance	100
16.21	Beach Area Low Flow Storm Drain Diversion Project, Phase III.....	100
16.22	Mission Bay Sewage Interceptor System Upgrades	101
17	Conclusions and Program Amendments.....	102
17.1	Successes and Challenges	102
17.1.1	Successes.....	103
17.1.2	Challenges.....	104
17.2	Future Recommendations	104
17.3	Proposed Program Amendments.....	105

Tables

Table 1-1.	Summary of Special Project Accomplishments in FY 2006.....	1
Table 3-1.	General Street Sweeping Schedule.....	3
Table 3-2.	Environmental Services Cleanup Data.....	6
Table 3-3.	Environmental Services HHW Collection Data.	6
Table 3-4.	Issues Identified During Inspections of Municipal Facilities.....	20
Table 4-1.	Summary of Businesses Selected for Inspection.....	24
Table 4-2.	Education Materials Distributed During Inspections.....	27
Table 5-1.	Fact Sheets Distributed in FY 2006.....	30
Table 8-1.	Stop Work Orders Issued by ECP Field Engineering Division.....	49
Table 9-1.	FY 2006 Enforcement Actions.....	50
Table 9-2.	FY 2006 City Attorney Prosecutions.	50
Table 11-1.	Summary of 2005 Dry Weather Monitoring.....	54
Table 11-2.	Summary of Dry Weather Sites Requiring Follow-Up Investigations.....	55
Table 11-3.	Summary of Investigations Not Related to Dry Weather Monitoring.....	58
Table 12-1.	<i>Think Blue</i> FY 2006 Media Buy Year-End Summary.....	66
Table 12-2.	Media Leveraging.....	66
Table 12-3.	Storm Water Division Contacts.....	68
Table 12-4.	General Public Outreach and Education Events.....	69
Table 12-5.	<i>Think Blue</i> Collateral Materials by Target Audience.....	71
Table 14-1.	Level 1: Compliance with Activity-Based Permit Requirements – Municipal.....	82
Table 14-2.	Levels 1 and 4: Achievement of In-House Targets – Debris Removed Due to Storm Drain Inspections and Cleanings.....	82
Table 14-3.	Level 1: Achievement of In-House Targets – Municipal Facilities with Water Quality Plans.....	82
Table 14-4.	Level 1: Compliance with Activity-Based Permit Requirements – Industrial.....	83

Table 14-5. Level 1: Achievement of Activity-Based In-House Targets – Commercial.	84
Table 14-6. Level 1: Compliance with Activity-Based Permit Requirements - Commercial.	84
Table 14-7. Levels 1 and 4: Achievement of Activity-Based In-House Targets – Residential....	86
Table 14-8. Level 1: Compliance with Activity-Based Permit Requirements – Land Use Planning.	87
Table 14-9. Level 1: Compliance with Activity-Based Permit Requirements – Construction.....	88
Table 14-10. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.	89
Table 14-11. Level 1: Compliance with Activity-Based Permit Requirements – Enforcement..	89
Table 14-12. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.	90
Table 14-13. Level 1: Compliance with Activity-Based Permit Requirements – Education.	91
Table 14-14. Level 1: Achievement of Activity-Based In-House Targets – Education.	91
Table 14-15. Level 2: FY 2002 through FY 2006 Contacts Received.	92
Table 14-16. Level 1: Achievement of Activity-Based In-House Targets – Public Participation.	93
Table 15-1. City’s 2001 estimate of implementation costs for Order No. 2001-01.	94
Table 15-2. Funding for Special Projects.	96

Figures

Figure 1-1. Code Compliance Investigation By Type.	4
Figure 1-2. Number of Sewer Spills in City of San Diego Between 2000 and 2006.	5
Figure 3-3. Municipal Inspection Form.	22
Figure 4-1. Industrial Facilities Water Quality Threat Prioritization Flow Chart.	25
Figure 9-1. FY 2006 Investigations by Discharge Substance Type.....	51
Figure 12-1. FY 2004 Awareness of the Slogan <i>Think Blue</i>	65
Figure 14-1. Percent of Beach Advisories and Closures as Compared to Total Beach Mile Days Possible.	80
Figure 14-2. City of San Diego Sewer Spills from 2000 - 2006.....	81
Figure 14-3. Awareness of the Slogan <i>Think Blue</i>	92
Figure 15-1. FY 2006 Citywide Expenditures by Permit Area.	94
Figure 17-1. Beach Posting and Closures in City of San Diego Between 2000 and 2006.	102
Figure 17-12. Number of Sewer Spills in City of San Diego Between 2000 and 2006.	103

Appendices

Appendix A: Amendments to URMP
Appendix B: Department Reporting and Inspection Forms
Appendix C: FY 2006 Industrial Inspections
Appendix D: FY 2006 Commercial Inspections
Appendix E: Dry Weather Monitoring Data
Appendix F: Storm Water Division Enforcement Actions
Appendix G: 2006 Sewer Spill Reports to Regional Board

1 EXECUTIVE SUMMARY

San Diego is a beautiful city with its picturesque coastline and bountiful aquatic resources. In addition to supporting an abundance of wildlife, San Diego's natural surface water resources—its creeks, beaches and bays—provide miles of recreational opportunities for residents and serves as the centerpiece to San Diego's tourist industry. Pollution in urban runoff has the potential to harm the region's creeks, beaches, and bays and threatens its social and economic quality of life. Preserving San Diego's natural water resources is one of the most important goals of the City of San Diego (City). The Storm Water Pollution Prevention Division (Storm Water Division) was designated as the lead City agency to achieve this goal.

The City's Urban Runoff Management Plan establishes the blueprint for actions that the City would take to protect and improve the water quality of the creeks, beaches, and bays in the region and achieve compliance with San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). The plan, adopted by the City Council in January 2002, outlines a phased implementation approach allowing for increased activities as additional funding is identified.

As with the previous four years, the City has worked diligently over the past year to implement the Urban Runoff Management Plan. In addition, the City leveraged its resources in program areas that could achieve the most efficient benefits to water quality: special projects, which leverage funding and efforts in the region; education and training efforts in pollution prevention; and good housekeeping activities.

1.1 PROGRAM ACCOMPLISHMENTS

1.1.1 Special Projects

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Division achieved significant benefits to water quality beyond its FY 2006 \$13.56 million budget by leveraging \$18,683,300 (this amount includes both grant and match funding) in special projects, as summarized below. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

Table 1-1. Summary of Special Project Accomplishments in FY 2006.

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Areas of Special Biological Significance (ASBS) Project Planning and Implementation</i>	The City continued to work with the Scripps Institution of Oceanography and San Diego Coastkeeper to develop the La Jolla Coastal Watershed Management Plan. In addition, a concept proposal for Consolidated Grants Program funding was submitted by the partners to install a dry weather low flow diversion system; the partners received notice in April 2006 inviting them back to submit a full proposal.	\$5,000,000 (\$500,000 for planning +\$4,500,00 for diversion system)

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Low Flow Storm Drain Diversion Program, Phase III (Beach Areas)</i>	The City continued work on Phase III of the Low Flow Storm Drain Diversion Project to serve the La Jolla, Ocean Beach, and Pacific Beach areas. The construction contract was awarded in November 2005, and construction began in January 2006.	\$2,452,800
<i>San Diego Region Integrated Pest Management (IPM) Education Project</i>	The City continued implementation of an education program directed primarily towards residential pesticide users. Outreach and monitoring activities focused on the Chollas Creek Watershed. In FY 2006, the City conducted distributed IPM cards through print media, the Internet, and attendance at community events. Water quality monitoring also occurred.	\$1,352,500
<i>San Diego Watersheds Common Ground Project: San Diego Bay Watershed Demonstration</i>	The City continued to work with its partners and consultant in the creation of a GIS- and web-based database to track and analyze conditions and trends associated with the region's water resources. In FY 2006, preliminary versions of the web-based resource was launched, and input/comments from stakeholders were solicited through various avenues. Water quality sampling also occurred, and the data collected was added to the project's database. Work on this project is anticipated to be completed in FY 2007.	\$1,362,000
<i>Mission Bay Computerized Irrigation Control System Project</i>	The City continued work installing a computerized irrigation control system in Mission Bay Park to reduce over-irrigation and the washing of bird wastes into Mission Bay. A contractor was selected in November 2005. Construction began in December 2005 and terminated in April 2006.	\$1,300,000
<i>Chollas Creek Water Quality Protection and Habitat Enhancement Project</i>	The City continued to implement this grant project. Staff completed the environmental review process and secured the necessary permits from regulatory agencies. The City also completed a public bidding process for the construction plans and specifications. The City is currently in negotiations with a landowner to assume responsibility for the construction of the project.	\$2,987,000
<i>Rose and Tecolote Creeks Water Quality Improvement Projects</i>	The City continued work on installing a hydrodynamic separator near the Tecolote Canyon Natural Park to treat runoff before reaching Rose and Tecolote creeks. Installation of one of two separators began in May 2005 and terminated in September 2005.	\$2,000,000

Project	Accomplishments in FY 2006	Project Budget (Grant & Match Funding)
<i>Ocean Beach–San Diego River Water Quality Improvements</i>	The City continued work on improvements to check valves, the existing low flow diversion system, and a storm pipe to reduce bacteria counts in Ocean Beach and the San Diego River. Most work was completed in FY 2006. Receiving water monitoring is anticipated to occur to assess the effectiveness of the improvements in reducing bacteria counts.	\$2,229,000
Total value of special projects:		\$18,683,300

1.1.2 Education and Outreach

The City's Storm Water Pollution Prevention Program goals for its FY 2006 public information campaign were the same as those the Program started with. These goals are as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan

June 30, 2006, concluded the fifth year of the *Think Blue* Media, Education, and Public Advocacy Campaign. The campaign was able to put forth a broad, multifaceted effort, which included educating and training municipal employees, targeting external audiences as identified in the Municipal Permit (residential, business, and industrial audiences as well as school-aged children and the construction and development sectors), participating in grant education and outreach activities, and actively participating in regional outreach and education efforts with the Copermittees.

1.1.3 Enforcement

In FY 2006, Storm Water Division received 1,902 contacts from the public and others. The public awareness and activism contributed to 1,531 investigations, 235 Administrative Citations, 729 Notices of Violation, and 149 Civil Penalties being issued to polluters for violating the Storm Water Ordinance (San Diego Municipal Code §43.03). The remainder of the contacts (371) was not related to potential storm water enforcement issues. The breakdown of investigations shown in Figure 1-1 shows investigator efforts in response to calls, and does not necessarily reflect breakdown of storm water sources in reality. The fact that many people reported wastewater violations indicates the public's growing awareness and ability to recognize prohibited discharges. Other issues to consider are the willingness to report on a single violator (perhaps a neighbor) versus willingness to report on an agency. In addition, the Consumer and Environmental Protection Unit of the City Attorney's Office successfully prosecuted two water pollution cases. Through the City's enforcement efforts, numerous sources of storm water pollution were identified and abated.

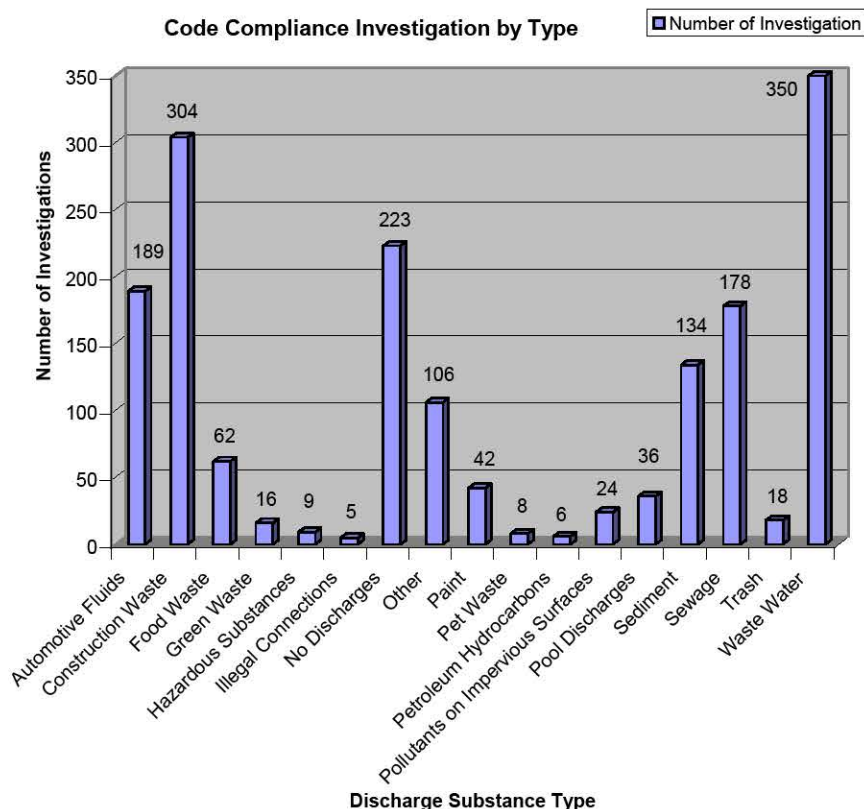


Figure 1-1. Code Compliance Investigation By Type.

1.1.4 Water Quality Monitoring

The City's Storm Water Division staff conducted routine water quality monitoring at 12 coastal beach and five lagoon stations on a monthly schedule from November to March and on a semimonthly schedule from April to October. Staff also conducted routine water quality monitoring at 308 Dry Weather Monitoring sites from May through September to help the City identify and characterize sources of pollution.

1.1.5 Development and Construction

The City continued to refine and improve its implementation of permanent storm water controls in new public and private development projects with continued internal staff training in FY 2006.

1.1.6 Industrial and Commercial Programs

The City continued to expand its industrial and commercial programs in order to institute effective measures to reduce pollutants. This year's efforts included the inspection of 315 industrial facilities and 4,473 commercial facilities. Beginning in April 2004, a mailing insert has accompanied business license renewals and business tax certificate mailings to inform businesses of storm water best management practices requirements and ordinances. This information reached approximately 45,000 businesses in FY 2006.

1.1.7 *Municipal Activities*

The City continued to place emphasis on storm water pollution prevention practices and awareness integrated into all field operations and activities at municipal facilities in FY 2006. Notable efforts in FY 2006 include:

- Street Division conducted street sweeping of nearly 87,472 curb miles and collected approximately 4,122 tons of debris.
- Street Division cleaned 8,561 storm drain structures, 11,691 feet (2.21 miles) of drainage pipe, and 0.8 miles of drainage channels, removing 6,737 tons of debris from the storm drain system.
- In total, the Street Division's street sweeping and storm drain system cleaning activities removed 10,859 tons of debris from the City's storm drain system in FY 2006.
- The Environmental Services Department cleaned or collected over 3,116 tons of trash, debris and recyclables in FY 2006.
- Through continued sewer cleaning, maintenance and tracking efforts by the Metropolitan Wastewater Department, the number of sewer spills in the City dropped from 144 in FY 2003 to 127 in FY 2004 to 95 in FY 2005 to 71 in FY 2006, an 80.5 percent reduction since 2000 (see Figure 1-2). The City feels that their JURMP water quality protection efforts contributed to these gains.

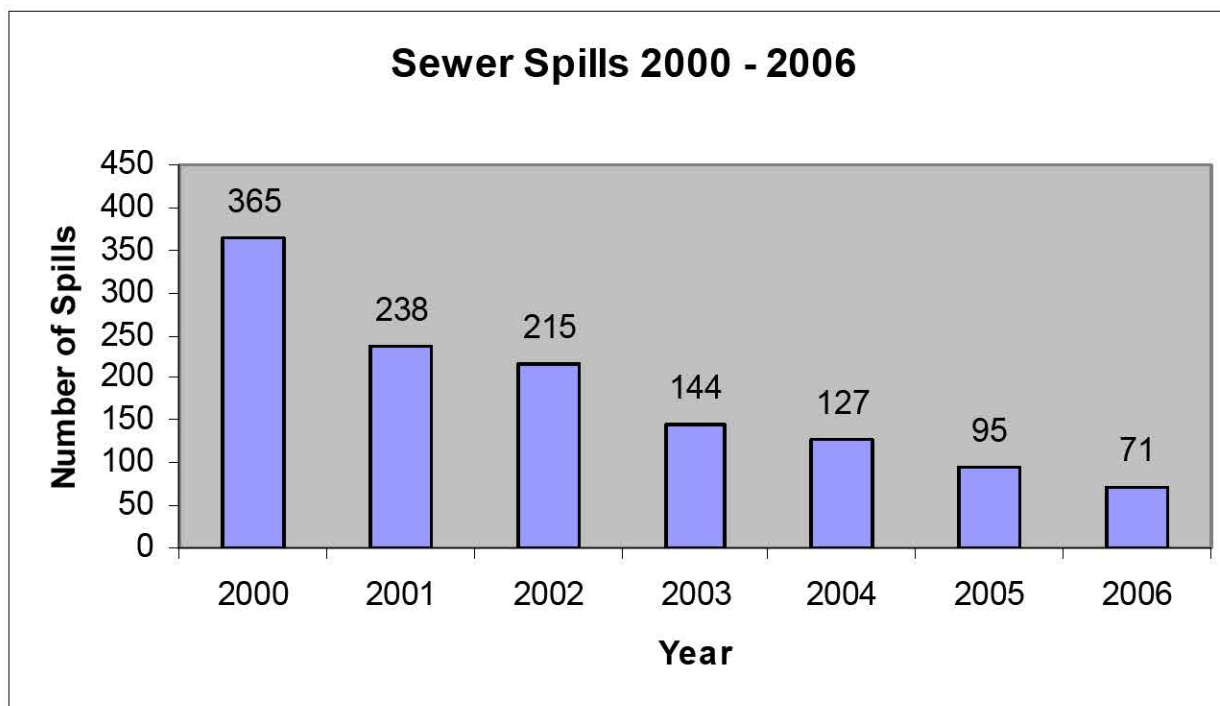


Figure 1-2. Number of Sewer Spills in City of San Diego Between 2000 and 2006.

1.1.8 *Focused Water Quality Efforts – Watershed Programs*

The City is a part of six watersheds as defined by San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). However, in actuality, watershed scale is

relative. For example, all areas within the City are also part of the San Diego Basin, a larger watershed draining Western San Diego County into the Pacific Ocean. It is at this larger watershed scale that watershed implementation of many programs, such as inspection or enforcement programs, are most efficiently implemented Citywide due to economies of scale and City structure.

Although the City's implementation may often occur jurisdictionally, watersheds, and in many cases sub-watersheds, form the appropriate scale for analysis of water quality problems and identification of pollution sources. Independently, and in coordination with other jurisdictions in the region, the City will continue to pursue focused, watershed-based source identification efforts throughout the City's six watersheds.

1.2 FUTURE DIRECTIONS

Currently, the City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, Total Maximum Daily Loads (TMDLs), Areas of Special Biological Significance (ASBS), and Cleanup and Abatement Orders (CAOs). By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is taking an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for an integrated approach to implementation in FY 2006 and continues this effort in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts.

The City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. It is hoped that the refined standards would lead to a more regionally integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The anticipated commencement in the latter half of FY 2007 of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.

Staff continued to study long-term alternative funding mechanisms in FY 2006, including an increase in the current storm drain fee, to support the anticipated expansion in the City's storm drain and water quality protection programs over time. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to

collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

To provide focus for program improvements in FY 2007, the Storm Water Division has identified the following objectives:

- Continue strategic, integrated approach to planning program efforts;
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;
- Refinement of the City's industrial and commercial inventories;
- Improvements in industrial and commercial inspection programs.

1.3 RESPONSE TO REGIONAL BOARD COMMENT LETTER (SWU:10-5015.02:HAMMP)

This Annual Report also contains responses to the comments provided by the Regional Board in its September 15, 2006 letter (SWU:10-5015.02:hammp) to the City. Text in this Annual Report addressing a comment is followed in parentheses by the comment's corresponding number in, and the Regional Board's code number for, the September 15, 2006 letter. For example, the text below demonstrates how Comment No. 26 is addressed:

Municipal employees continue to be aware of the importance of storm water pollution prevention and the implementation of BMPs. They continue to implement BMPs throughout the course of their work as evidenced in the *Annual Reporting Form* in Appendix B (Comment No. 26, SWU:10-5015.02:hammp).

2 INTRODUCTION

2.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2005

The mission of the Storm Water Pollution Prevention Division (Storm Water Division) is to:

“Protect and improve the water quality of rivers, bays, and the ocean for the citizens of San Diego and future generations by eliminating and reducing pollutants in urban runoff and storm water in an efficient, effective, and professional manner as part of a high-performing team through public education, employee training, watershed collaboration, field testing, investigations, enforcement, regional programs, and coordination.”

The Storm Water Division in the General Services Department is the lead office for the efforts of the City of San Diego (City) to reduce pollutants in urban runoff and storm water to the maximum extent practicable and achieve compliance with San Diego Regional Water Quality Control Board (Regional Board) Order Number 2001-01 (Municipal Permit).

In order to improve and protect our region's natural water resources, the Storm Water Division is actively engaged in a number of activities that will cumulatively result in improvements to water quality. The Citywide blueprint for protecting natural water resources is the Urban Runoff Management Plan (URMP), adopted by the City Council on January 28, 2002. The primary activities that the City continues to implement include, but are not limited to, public education, employee training, water quality monitoring, source identification, code enforcement, watershed management, and storm water best management practices development and implementation within the City's jurisdictional boundaries.

The Storm Water Division represents the City on storm water and Municipal Permit issues before the Principal Permittee (County of San Diego) and the Regional Board. In addition, the Storm Water Division provides technical expertise and guidance to all City departments to ensure implementation and compliance with the Municipal Permit. Furthermore, the Storm Water Division prepares and transmits this annual report of all City activities governed by the Municipal Permit to the County of San Diego for submittal to the Regional Board and is the responsible entity that certifies that the City is in compliance with all Municipal Permit requirements.

2.2 REPORT ORGANIZATION

This Fiscal Year (FY) 2006 Annual Report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. Like the FY 2005 report, the City continued to include several sections not identified in the table of contents submitted by the Copermittees, namely: Enforcement, Monitoring, and Special Projects.

Each section of the FY 2006 Annual Report is consistent with the components of the Municipal Permit and, where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts. Each section also addresses future activities that the City intends to implement or has begun implementing in FY 2007. Where future activities identify

changes that conflict with what is represented in the URMP, the section also discuss proposed amendments. Copies of the amended URMP components are included in Appendix B.

2.3 REPORTING PERIOD

This Annual Report provides information for FY 2006: July 1, 2005, to June 30, 2006.

3 MUNICIPAL

The City continued to assess and implement its URMP for municipal facilities and activities in FY 2006. Storm Water Division staff held periodic URMP management meetings with key personnel from various City departments to address municipal issues and ensure that program objectives and municipal Permit requirements were met. This section identifies the actions the City took during the reporting period to meet these objectives and requirements.

3.1 PRIORITY SOURCES

There have not been any updates to the prioritized municipal inventory because none was required.

3.2 BEST MANAGEMENT PRACTICE (BMP) REQUIREMENTS

The City implemented BMPs consistent with those set forth throughout Chapter 2, *Storm Water Best Management Practices*, of the City's Urban Runoff Management Plan, including the implementation of Storm Water Pollution Prevention Plans (also called Water Quality Management Plans). City departmental personnel complied with the City's Storm Water Ordinance and additional internal departmental policies established to reduce pollution in urban runoff.

3.3 BMP IMPLEMENTATION

The City implemented BMPs, including pollution prevention measures, to prevent and reduce pollutants in runoff from municipal areas and activities. BMPs that were implemented during FY 2006 are summarized below according to municipal facility and/or activity.

3.3.1 *Municipal Areas/Activities*

3.3.1.1 *Roadways*

The City currently maintains over 2,800 miles of roadways and alleys. The Street Division is responsible for inventorying, inspecting, maintaining, and repairing all roadway structures. For a detailed description of the BMPs implemented by the Street Division for roadway operations, refer to the Street Division's FY 2006 *Activity Reporting Form* in Appendix B.

Street Sweeping

The targeted street sweeping schedule performed by the Street Division based on generalized location is summarized in Table 3-1. Actual street sweeping frequencies may be more or less frequent in specific areas of the City, depending on available budget, the identification and sweeping of new or known problem areas, and unique events (e.g., fires). Refer to Appendix B for the record of the actual street sweeping that occurred in FY 2006 (**Comment No. 1, SWU:10-5015.02:hammp**).

Table 3-1. General Street Sweeping Schedule.

Location	Frequency
Downtown	5 times per week
Residential	Once per month
Commercial/Office/Industrial	Once per week

Areas surrounding Chollas Creek in the Pueblo San Diego Watershed are considered priority areas. Sixty-six (66) curb miles were swept twice a month on residential routes, and sixty-eight (68) curb miles were swept on commercial routes four times a month to prevent pollutants from entering watercourses. In addition, where possible, sub-watershed areas with water bodies identified on the Clean Water Act Section 303(d) List of Water Quality Limited Segments as impaired for sediment receive additional sweeping as part of commercial and residential sweeping routes. In total, the Street Division conducted street sweeping of nearly **87,472 curb miles and collected approximately 4,122 tons of debris** in FY 2006.

Roadway Field Operations

The Street Division continued to implement site-specific BMP plans during field operations in FY 2006. Examples of these field operations include painting and asphalt or concrete repair activities.

Roadway Material Disposal

Material collected from Street Division operations (dredged material, litter, debris, and sediment from streets or storm drains) was properly transported to a designated materials decanting site. BMPs were used during transport to ensure that material did not escape from the vehicles. Materials were dried out prior to disposal according to site-specific BMPs. For example, excess water from the material was captured, collected, and properly disposed of, and perimeter BMPs were properly maintained to ensure effectiveness.

Street Sweeper Maintenance

Sweeper operators are each responsible for the daily maintenance of their assigned sweeper, which includes washing, changing gutter brooms, lubricating all necessary fittings, checking and cleaning all filters, and checking for fluid leaks.

Daily washing of the sweepers and the vactors occurred at municipal yards in designated wash areas provided by the Street Division. These wash areas collect all runoff into a sump. The water is then vacuumed by a vactor truck weekly and deposited into the wastewater collection system. Any solid material is removed from the sump and dried at the materials decanting location discussed above and then deposited at the accepted landfill. Each vactor or sweeper operator is required to properly complete a vehicle operator's daily inspection report that is kept on file for two years.

In FY 2006, the Street Division replaced older, less effective street sweepers with Johnston 4000 mechanical sweepers. Plastic gutter broom segments were also replaced with reusable aluminum ones. These replacements provided improved performance and greater efficiency in street debris removal.

3.3.1.2 Municipal Separate Storm Sewer System (MS4)

The City has over 75,000 storm drain structures and 889 miles of drainage pipe. The Street Division is responsible for the inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. The Street Division regularly inspected the City's MS4 and surrounding areas and removed and properly disposed of sediment, debris, and trash from the storm conveyance channels, storm drains, and catch basins through hand cleaning, mechanical removal, and street sweeping. The Street Division also identified problem areas and conducted additional cleaning, where necessary, and recorded information about cleaning frequencies and material removed. In addition, the Street Division operated a daily,

round-the-clock telephone hotline and online service request program to address citizens' request for services.

In FY 2006, the Street Division continued efforts to accurately and completely map the City's drainage infrastructure. Specifically, efforts focused on the mapping and surveying of major and minor channels, basins, and storm drains. GIS mapping and biology surveys will also occur simultaneously and be organized geographically.

In FY 2006, the Street Division continued efforts to develop a plan for the televising and evaluation of the City's corrugated metal pipes for their eventual full replacement. Replacement of the pipes would help minimize significant risk to life and property and result in water quality improvements through a decrease in slope failures, erosion, and downstream sediment.

MS4 Debris Removal

Storm drain system was inspected and cleaned as described below.

- Drainage structures that empty into or border on a body of water were identified, inspected, and cleaned before the wet season.
- Drains designated as problem areas based on field observations were identified, inspected, and cleaned twice a year.

Material collected from cleaning operations was properly transported to the appropriate disposal site. Absorbent material was used during transport to prevent liquids from leaking during transport. Material that was removed by machine cleaning (the vacuumed gunk removed from the storm drain system by vactor trucks) was dumped at the materials decanting site (discussed in Section 3.3.1.1 above), and all water was vacuumed by a vactor truck and disposed of into the wastewater collection system.

During FY 2006, Street Division inspected **7,669 storm drain structures** (10.2% of the 75,000 structures in the City), and cleaned **8,561 storm drain structures** (11.4%), and **cleaned 11,691 feet (2.21 miles) of drainage pipe**, and **0.8 miles of drainage channels**. A total of **6,737 tons of debris** was removed directly from the storm water conveyance system, including open channels. In combination with the Street Division's street sweeping activities discussed in Section 3.3.1.1 above, **the Street Division cleaned 10,859 tons of debris from the City's storm drain system in FY 2006.**

In addition, the Street Division continued efforts in FY 2006 to secure local, state, and federal permits for channel maintenance and made progress towards the preparation of a Program Environmental Impact Report and obtainment of permits from various resource agencies to conduct City-wide storm drain conveyance system cleaning and maintenance.

The City will continue to study alternative funding sources, including an increase in the current storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Per the Mayor's 5-year financial outlook, expenditure on storm water-related activities is anticipated to rise significantly. In the meantime, the Street Division will continue to make the most of its current resources through prioritization, focusing on structures most in need of attention as identified (**Comment No. 2, SWU:10-5015.02:hammp**).

Cleanup Activities

Other measures and operations were conducted to help reduce pollutants from the City's MS4.

In FY 2006, the Environmental Services Department collected trash and debris during cleanup activities and events throughout the year that had the potential to be transported to the City's MS4 or directly to drainages and water bodies. Table 3-2 summarizes these activities.

Table 3-2. Environmental Services Cleanup Data.

Event/Activity	Trash/Debris Collected (tons)
Public calls for cleanup (11,810 calls) of illegal dumping, litter, transient encampments, etc.	1,355.36
Debris clearing at Ridgehaven building	1
Public calls regarding dead animals (3,517 calls)	60.36
Community Cleanup Events (87)	1,699.47
Total Trash/Debris*:	3,116.19
*Note: Total excludes City-sponsored cleanup events identified in the City's six Watershed Urban Runoff Management Plan Fiscal Year 2006 Annual Reports, and municipal trash collection services, which collected and properly disposed of 370,127 tons of trash and 70,958 tons of curbside recyclables in FY 2006.	

In addition, the Environmental Services Department collected **534 tons of household hazardous wastes (HHW) in FY 2006** as shown in Table 3-3 below.

Table 3-3. Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	11
Auto Product Recycling Events	68
HHW Transfer Facility	443
Door-to-Door Collection	12
Certified Oil Collection Centers (waste oil and oil filters)	5,035
Total HHW:	5,569

By law, HHW cannot be collected through regular refuse collection. When HHW is found, drivers tag the waste. The tag explains the proper disposal method for the HHW and the City's hotline (1-800-694-7000) where more information can be obtained on proper HHW disposal methods.

Although HHW collection is a service provided by the Environmental Services Department for reasons beyond those of storm water pollution prevention, it is reasonable to conclude that additional hazardous waste is not being dumped into the storm drain system and is instead being properly collected due to the Environmental Services Department's educational and collection efforts. Refer to the department's FY 2006 *Activity Reporting Form* in Appendix B for more details.

Low Flow Diversion System

The City's Low Flow Diversion System is designed to capture urban runoff or sewage overflows from the City's MS4 during dry conditions and divert them to the City's wastewater collection system for treatment at the Point Loma Water Treatment Plant. During the reporting period, the City operated and maintained 54 Low Flow Diversion Facilities: 47 facilities in operation protecting Mission Bay and another seven facilities located in the La Jolla community. The facilities have proven to be extremely effective in capturing and diverting urban runoff and sewage overflows before they reach our coastal waters.

Stencils

Stencils with the storm water message and picture as shown here were created in FY 2003 to be used at storm drain inlets at municipal facilities. Stenciling is an effective way to educate the public and discourage illegal dumping into the storm drain. Before the end of FY 2003, a trial run of one of the stencils was conducted at the City's municipal yard at 20th and B streets to ensure that the message was legible.



Figure 3-1. Storm Drain Inlet Stencil.

After a final design was selected, the Storm Water Division in FY 2004 made 15 mylar copies of the stencil to use at the City's municipal yards and other appropriate municipal facilities. During the first part of FY 2004, all municipal yards were stenciled with the message. In addition, Qualcomm Stadium, all major Environmental

Services Department facilities, and some Water Department facilities were stenciled in FY 2004. The Storm Water Division continued to work with other City departments to identify existing and new storm drain inlets on municipal properties to be stenciled.

In addition, the City distributed copies of the mylar stencil and specifications for creating the stencil to the non-profit organization *I Love A Clean San Diego* (ILACSD). ILACSD used the stencil for all volunteer stenciling activities the organization conducts in the City. During FY 2006, 359 volunteers worked 1,141 hours to stencil 213 storm drains. The Storm Water Division made 24 referrals to ILACSD regarding storm drain stenciling.

To ensure that new storm drains are stenciled during construction of both private and public development projects, the Storm Water Division coordinated with the Development Services Department and Field Engineering Division to write standard development permit language requiring contractors to stencil all new storm drains. This requirement was in effect for all of FY 2006.

To make the stencil available to the public and private contractors, the Storm Water Division posted the specifications for creating a stencil on the City's *Think Blue* website (<http://www.ThinkBlueSD.org>).

3.3.1.3 Wastewater Collection System (including Wastewater Treatment Plants and Pump Stations)

The Metropolitan Wastewater Department (MWWD) is responsible for the collection and conveyance of wastewater from residences and businesses in the City of San Diego, serving a 330 square mile area with a population of 1.3 million people. MWWD currently maintains nearly 3,000 miles of City sewer line with over 250,000 city connections. MWWD also maintains a GIS inventory of wastewater structures. During FY 2006, the department conducted field inspections and televised sewer lines to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can

reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration.

With the passage of four annual Sewer Rate increases by the Mayor and City Council in October 2001, MWWDD embarked on an aggressive Sewer Spill Reduction Program. The key elements of this program include the cleaning of all 3,000 miles of the municipal sewer system by March 2004; the televising of more than 1,000 miles of the oldest and most problematic sewer lines in the system; and an increase in the number of miles of sewer lines replaced or rehabilitated from 15 miles per year to 60 miles per year by calendar year 2004. The results of this program are readily apparent in a sharp decrease in the number of sewer spills and beach closures due to sewer spills in the City. **The number of sewer spills in the City dropped from 193 in FY 2003 to 115 in FY 2004 to 95 in FY 2005 to 71 in FY 2006.**

The notable accomplishments MWWDD completed in FY 2006 to help reduce the number of sewer spills and protect water quality include:

- Replacement of 26.30 miles of sewer line
- Rehabilitation of 0.29 mile of sewer line
- Televising of 51.72 miles of sewer line
- Cleaning of 2,336.56 miles of sewer line
- Food Establishment Wastewater Discharge (FEWD) performed:
 - 9,141 facility inspections
 - 1,897 permit inspections
 - 7,460 Grease Removal Equipment inspections
 - Issued 1,835 permits
- Continuation of BMP implementation at 11 treatment facilities and pump stations as part of Storm Water Pollution Prevention Plans (SWPPPs) prepared in accordance with the State General Industrial NPDES Permit
- Quarterly inspections by Safety & Training personnel of 11 MWWDD facilities with Industrial Permit SWPPPs
- Implementation of emergency BMPs at sewer spills to quickly contain spills and minimize discharges.
- Development and implementation of standard operating procedures called IMAPs (interim maintenance access plans) for field crews working in the right of way
- Strategic installation of canyon access paths to minimize impacts to wetlands and water quality

MWWDD also continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease and provide residents a place to dispose oil and grease at the Miramar Landfill. This program is described in greater detail in Section 6.3.3.

While monitoring storm drain runoff at dry weather monitoring stations, in FY 2006, the City's Storm Water Division also continued to investigate other possible sources of pollutants, including leaking or broken sewer lines. Monitoring staff tested water samples and documented odors of suspect flows. If tests or observations indicated a possible sewer spill, staff used maps to identify locations of sewer lines and investigate the spill location. When potential spills were found, monitoring staff immediately notified MWWDD to take appropriate action. In FY 2006, there were no referrals to MWWDD regarding potential spills.

Staff Training. In FY 2006, MWWDD conducted three general training classes (53 attendees) and one construction-based training class (24 attendees). These classes covered storm water principles. Most of MWWDD's employees had been trained on storm water pollution prevention in previous fiscal years.

3.3.1.4 *Water System*

The Water Department owns and operates the potable water supply and distribution system for the residents of the City. The City's water system includes 3,000 miles of pipeline, 49 pump stations, three treatment plants, 32 potable water reservoirs, nine raw water reservoirs, and eight groundwater basins. Some of the City's water resources (raw water reservoirs and groundwater basins) are located outside the City limits. The system serves 1.3 million City customers and provides water and water storage to other municipalities and water districts in San Diego County.

In FY 2005, the Water Department received ISO 14001 Certification after its Water Operations Division successfully implemented the ISO 14001 Environmental Management System (ISO 14001 EMS) program. Under this program, the Water Department establishes annual objectives and targets for improvements in environmental performance, and Department employees perform their daily activities with an increased awareness and commitment to water quality protection and pollution prevention. In FY 2006, the Water Department continued to implement ISO 14001 Certification requirements, which included implementation of BMPs during cleaning and construction, responsible material delivery and storage, habitat/water quality protection, hazardous waste management, etc.

The Water Operations Division also maintains a Watershed/Storm Water Program that strives to meet the objectives set forth in the City's Urban Runoff Management Plan. In FY 2006, the Watershed/Storm Water Program continued to enforce existing BMPs, perform storm water site inspections at Department facilities, conduct storm water training with Department staff with the help of Department training personnel, and do external education and outreach. A listing of the Water Department's accomplishments is provided below.

Storm Water Pollution Prevention Plans (SWPPPs). The Water Department had previously produced and continued to implement a SWPPP for each of its water treatment plants (Alvarado, Miramar, and Otay) and its maintenance and equipment facilities at the Chollas and San Vicente municipal yards. Construction projects are underway at all three water treatment facilities to meet the future water demands of the City. Each facility is undergoing an expansion to provide increased treatment capacity, and the SWPPP for each facility is updated to reflect these changes as necessary. In FY 2006, the Water Department continued to use as-needed consultants to monitor and inspect the construction activities at these water treatment facilities and other large construction sites to ensure the implementation of the SWPPPs.

Currently, the Water Department maintains 32 potable water distribution reservoirs and 49 pump stations as part of the overall water distribution system. Providing a SWPPP for each of these facilities is considered unnecessary since most pump stations occupy a small area and, therefore, contribute very little runoff. The distribution reservoirs occupy a much larger area but are surrounded by landscaped buffer zones that serve to collect most of the runoff produced on site. A pollution prevention matrix has been developed as an alternative SWPPP. It lists each facility and the main storm water issues related to the facility. In FY 2006, every pump station

and reservoir was inspected at least once per quarter; those facilities that were known to accumulate significant amounts of leaves, pine needles, and other debris were inspected more frequently.

Facility Inspections. In FY 2006, the Water Department frequently inspected all its high priority facilities, namely the water treatment plants and the municipal yards. Monthly site inspections, which included a visual walk-through inspection, were performed by facility maintenance employees. Staff prepared and sent out advisory e-mails to all project and construction managers at the start of the rainy season and in advance of predicted storm events, which reminded them of the need to monitor and maintain storm water BMPs before, during, and after anticipated storm events. A thorough inspection and assessment of each high priority site was performed in September 2005 as part of the annual pre-wet season inspections. Structural BMPs were repaired or replaced as necessary (and as funding allowed). All comments and suggestions noted on the monthly inspection were reviewed, and corrective actions were taken for each site. The SWPPP for each high priority site was maintained by the Water Department's Operations Division and updated as necessary.

The Water Department's distribution reservoirs and pump stations have been classified as low priority by the Watersheds/Storm Water Section and received a quarterly inspection schedule in FY 2006; every three months, the facility maintenance planner scheduled site inspections to be performed by maintenance personnel. Deficiencies that were noted during these inspections were assessed during the pre-wet season inspection of these facilities. Deficiencies that were reported on the inspection forms were corrected before the beginning of the wet season (or when funding was available). Most deficiencies reported were slope stabilization issues that required placement of fiber rolls at the toe of the slope and/or sprayed tackifiers to promote growth of vegetation along the slope.

Staff Training. In FY 2006, the Water Department continued to integrate storm water pollution prevention courses into its training program. These courses included instruction on proper BMP selection and installation, spill containment, good housekeeping practices during cleaning and construction, responsible material delivery and storage, solid waste recycling management, and overall water quality protection. Table 3-4 summarizes the staff training conducted by the Department.

Table 3-4. FY 2006 Water Department Storm Water Staff Training.

Course Name	Course Length	Number of Courses	Number of Attendees
WU14SW01: Storm Water Pollution Prevention (General)	1 hour	19	151
WU14SW10: Storm Water Pollution Prevention (Lakes)	1 hour	1	2
WU14ZW13: Storm Water Pollution Prevention (Field Operations)	2 hours	3	31
Tailgate Training (general storm water topics; BMP implementation; good housekeeping)	varied	unknown	unknown

In FY 2006, the Water Department continued to produce and display posters throughout various work areas of each Department division and section to celebrate employee commitment to working in an environmentally sensitive manner. Photos featured employees integrating environmental awareness into their jobs, such as carefully handling hazardous waste materials, cleaning up at the jobsite, and recycling paper. They also served as reminders to Department

employees of their role in protecting the environment and valuing customer service in complying with ISO 14001 EMS standards.

3.3.1.5 *Airports*

The City operates two general aviation airports: Brown Field and Montgomery Field. Operations at these facilities are conducted in compliance with General Industrial Permit requirements and according to the storm water program described in the facilities' SWPPPs, and Section 2.1.1, *Airports*, of the City's Urban Runoff Management Plan. BMPs implemented at these facilities, including inspection and monitoring information, are described within each facility's SWPPP.

Numerous industrial tenants and activities comprise airport operations. Therefore, in FY 2006, the City continued to rely on storm water representatives at each airport to work with tenant managers and owners to ensure storm water requirements are implemented at all times. Representatives also worked with vendors and the Environmental Services Department to ensure that hazardous materials, such as fuel/oil, batteries, and cleaning solvents, were stored and used appropriately and that hazardous wastes were disposed of properly.

Facility Inspections. In FY 2006, the aviation facilities, including tenant space, were inspected per the procedures outlined in their facility SWPPPs. The following inspections were conducted at Brown Field: four industrial activity area observations; four BMP evaluations and observations; eight storm water visual inspections; and one group leader inspection. No deficiencies were noted. Deficiencies noted during the 2006 Annual SWPPP Inspections at Montgomery Field were corrected the same day for all industrial activities, and the General Industrial Permit Annual Report was submitted to the consultant firm, Environmental Compliance Options (ECO). Where issues had been identified, City staff conducted follow-up inspections to ensure that issues had been addressed.

For a description of the BMPs implemented by the City and its tenants at its aviation facilities, refer to the Brown Field's and Montgomery Field's FY 2006 *Activity Reporting Forms* in Appendix B.

Staff Training. In FY 2006, two of the four members (50%) of the Brown Field staff received storm water training at Newport Beach.

3.3.1.6 *Solid Waste Facilities*

The City of San Diego currently operates and maintains one active and six inactive landfills. During the reporting period, activities in compliance with General Industrial Permit requirements were performed at all active and inactive landfills, and the BMPs established in each facility SWPPP were implemented. A summary of the BMPs implemented at City-operated landfills is provided below:

Active Landfill (West Miramar Landfill)

The Environmental Services Department (ESD) maintains the siltation basins at the landfill to ensure effectiveness. Material from the basins is collected when necessary and disposed of properly. Erosion and sediment control measures, including mulch, tackifier, and straw wattles are put in place, where necessary. Concrete and asphalt areas, including parking areas, are swept monthly and hand sweeping was done as needed. Monthly inspections are performed at the site to ensure the working condition of BMPs and drainage structures. Hazardous wastes are properly stored and inspected on a weekly basis.

Inactive Landfills

In FY 2006, erosion and sediment control measures (such as mulch) were put in place, where necessary. Quarterly inspections were performed at the sites to ensure working condition of BMPs and drainage structures.

For detailed information about the BMPs implemented at City landfills, refer to ESD's FY 2006 *Activity Reporting Form* in Appendix B.

3.3.1.7 Solid Waste Services

Program achievements during FY 2006 include: numerous workshops and presentations on various topics, including recycling, energy, and composting; holding community recycling events; informing residents about recycling and various programs through public service announcements and newsletters; implementing recycling programs for City staff; and conducting awards ceremonies to recognize businesses for implementing environmentally sound practices.

In addition, additional BMPs were continued to be implemented during trash collection activities in FY 2006. Each trash truck carried sand, and additional sand was stored in containers at the Miramar operations yard to be used in the event of hydraulic/fluid spills. Vehicle operators were trained to cover an oil spill with sand and to protect nearby storm drains.

3.3.1.8 Household Hazardous Waste Transfer Facilities

ESD implements the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection, and remediation of hazardous substances, including HHW, from facilities, residents, vacant land, and other City departments. ESD operates one permanent HHW Transfer Facility at Miramar Landfill, as well as several temporary collection facilities throughout the City. A summary of the BMPs implemented in FY 2006 at these facilities is provided below.

Permanent Facilities

Parking Lots/Landscaped Areas

Erosion and sediment control measures, such as mulch, woodchips, and silt fences, were implemented and maintained, where necessary. Asphalted areas were street swept monthly and hand sweeping was done, as needed. Absorbent materials were used to clean up any fluids leaking from vehicles, which were sent to the Equipment Division for repairs.

Trash Bins/Roll-offs

Measures were taken to prevent pollution from trash bins and roll-off containers. Lids or covers were provided for trash bins and kept closed. Empty containers were bagged prior to being placed inside roll-off containers. Cardboard bins were covered or stored under cover.

HHW Operations Area

Sorting and packaging of hazardous waste were performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas to prevent pollution from potential spills. All hazardous wastes were stored inside in storage lockers equipped with fire suppression and secondary containment, or outside on secondary containment pallets and covered. The storm drain at the site was protected with a gate valve and kept closed during hours of operation. Storage areas were inspected weekly for leaks.

Temporary Facilities

Sorting and packaging of hazardous waste was performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas to prevent pollution from potential spills. Leaking material was immediately packaged into containers to prevent spills. Wastes were packaged in drums or pumped into a truck for transportation. Steps were taken to ensure that nearby storm drains and other areas were protected from leaking material or in the event of a spill. All wastes were removed from the site at the end of the day. Waste materials were stored on pallets to prevent pollutants from contaminating asphalt/concrete areas. If inclement weather was predicted, BMPs were put in place to prevent waste materials from coming into contact with precipitation. Good housekeeping measures were implemented at all sites. Hand sweeping and litter pickup were performed at the end of events, as needed. Operations such as hand washing stations were conducted on pervious areas.

For more detailed information on BMPs conducted at HHW facilities, refer to ESD's FY 2006 *Activity Reporting Form* provided in Appendix B.

3.3.1.9 Qualcomm Stadium

The City owns and operates Qualcomm Stadium, a multi-purpose facility built to accommodate a wide variety of activities, including field events, such as baseball, football, concerts, and soccer matches, and parking lot activities, such as new and used car sales, drag racing, community service events, and RV shows. Qualcomm Stadium's water quality protection activities are described in a SWPPP for the 166-acre site. A summary of the BMPs implemented at Qualcomm Stadium in FY 2006 is provided below.

- The area immediately surrounding all storm drains located inside the Stadium were re-painted in white with blue lettering to convey the message: *Think Blue – No Dumping – Goes To Ocean / No Tire Nada – Llega al Mar*.
- The dirt pile stored on site (6,000 cubic yards of soil) used for dirt show events was sprayed with an anti-erosion hydro-mulch stabilizer to prevent soil migration into the storm drains. In addition, sandbags (three stacks high) were placed around the entire dirt pile along with K-Rail in the more susceptible areas to further prevent soil migration.
- Sandbags were set around storm drains along the field perimeter and around those located at the W Tunnel loading dock. All storm drains located in the Stadium's parking lots where major annual events take place (e.g., Street Scene, auto/RV shows, Home Show, etc.) were covered and sealed to prevent any liquids and solids from entering.
- During stadium wash-downs that followed events, street sweepers were operated to capture any water that might have migrated across the parking lots before it reached the storm drains. All trash was cleaned as quickly as possible to reduce the possibility of trash being blown or washed into the storm drain system. In addition, Stadium staff and the San Diego Urban Corps implemented an aggressive and comprehensive cleaning program to capture recyclable trash immediately following events to successfully minimize recyclables making their way to the landfill and storm drains.
- Stadium staff and a Storm Water Division representative met with parking lot vendors and clients on site and discussed storm drain issues and proper storm drain management and protection methods. All parking lot contracts, agreements, and

permits issued to clients and vendors included enforceable language on proper storm drain protection, including the use of sandbags and grate covers.

- On December 7, 2005, there was a major fire at the main entrance to the Stadium caused by an overturned fuel tanker. Immediately following the accident, Stadium staff created a safety zone surrounding the inside area at the main gate by using barricades and caution tape with employees serving as parking lot traffic controllers until Fire-Rescue Department personnel arrived. Stadium staff secured storm drains within the affected area with sandbags and began hauling sand from the on-site storage bins and damming larger areas around the storm drains. When personnel from the City's Street Division arrived with additional heavy equipment to continue with storm drain protection, Stadium staff assisted with its equipment and provided the sand and soil to complete the protection of all storm drains and the San Diego River. Throughout the remainder of FY 2006, Stadium staff continued to assist authorities with storm drain cleanup and soil remediation from the tanker fire.
- During the Street Scene production meetings leading up to the event held in late July 2005, Stadium staff reviewed storm drain protection policies with the promoter. Included in the contract for use of the parking lots was language on covering all affected storm drains to prevent anything from entering the storm water conveyance system throughout the setup, two-day show, and teardown. Prior to and during the event, Stadium staff monitored the storm drains to ensure that they were completely protected throughout the event, as well as during the setup and teardown.

For more detailed information about BMPs implemented at Qualcomm Stadium, refer to the Stadium's FY 2006 *Annual Reporting Form* provided in Appendix B.

Facility Inspections. In FY 2006, daily inspections were performed throughout the Stadium property to detect and prevent any existing and potential problems associated with water and debris reaching the storm water conveyance system. Sandbags around storm drains were inspected, trashed was cleaned away from storm drains and grates, and all storm drains that were to be impacted by events were inspected for proper coverings. Refer to the completed *Municipal Inspection Form* for Qualcomm Stadium in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

Staff Training. In FY 2006, all Stadium staff received month training on storm drain issues by way of tailgate meetings. Items covered during the meetings included the importance of keeping storm drains clean and clear by not allowing anything to enter them. Each staff member was directed to stop anyone from pouring anything into a storm drain and to immediately contact their supervisor if such activity occurred. In total, 11 storm water staff training events were held. Thirty-five employees (58%) received training on activity specific storm water principles.

3.3.1.10 *Municipal Yards and Operation Stations*

City departments perform a variety of activities at the three municipal yards (Chollas Operations Yard, Rose Canyon Operations Yard, and the Central Operations Station [also called "20th & B"] and other operation areas. During FY 2006, City departments operating at the three municipal yards implemented SWPPPs. A summary of BMPs implemented at the municipal yards is provided below.

Sweeping

Parking lots and operation areas were swept at all municipal yards either by hand or by street sweeping vehicles. Some areas, such as the sand storage area, were swept based on a schedule, while other lower priority areas were swept as needed. For example, the Facilities Maintenance Division's areas at the 20th & B Operations Station were swept quarterly. Two street sweepers purchased by the Environmental Services Department and the Water Department in FY 2003 were used to facilitate routine maintenance and cleanup at municipal facilities. An additional small street sweeper was purchased by the Equipment Division and used at the Rose Canyon Operations Yard.

Trash

Municipal yards were inspected at least annually for litter and debris (among other issues) and cleaned as needed. High use areas with the greatest potential to collect trash/debris were generally inspected and swept more frequently as part of yard employees' standard procedures. Municipal grounds, including parking areas, were kept free of trash and other items that could possibly enter the MS4. "Annual Yard Cleanup Days" were conducted to clean municipal grounds of litter and debris and involve City staff in performing good housekeeping measures.

Trash receptacles were provided throughout municipal yards and emptied as needed. Trash bins were provided with lids and kept closed. Overhead cover for open recycling bins was provided to prevent contact with storm water. Trash receptacles were washed in designated areas to prevent wash water from entering the MS4.

Materials Storage

Materials at municipal yards were properly stored to prevent pollutants from entering the MS4. Where possible, materials, such as used batteries, were stored inside. BMPs such as tarps, secondary containment, or berms were used when materials were stored outside. Materials were stored away from storm drain inlets and in many cases were placed on pallets off the ground. Hazardous materials/waste were always stored inside or within secondary containment areas.

Vehicle Maintenance/Operations

The Equipment Division of the General Services Department dedicated one crew member to maintain all wash/steam racks and automated truck washes at each applicable municipal yard.



Figure 3-2. Grass Swale at Municipal Yard.

These crew members were trained in activity-specific storm water issues and conducted bi-weekly inspections.

Drip pans were used for vehicles with potential leaks to capture any automotive fluids. Vehicle repairs were performed inside, when possible, with the exception of minor repairs that did not involve fluids. Absorbent materials were used to clean up any fluids leaking from a vehicle.

Structural BMPs installed in FY 2003 at the 20th and B Operations Station vehicle wash area continued to be used to reduce and prevent excess water from discharging to the MS4 (see **Error! Reference source not found.**). In addition, berms constructed in FY 2003 to contain

runoff in other areas where vehicles are washed also continued to prevent excess water from discharging to the MS4.

Equipment Division personnel continued to implement good housekeeping practices, such as regular sweeping instead of hosing down.

At the Chollas Operations Yard, construction of a major remodel of the fuel island began in February 2004. The remodel, completed in FY 2005, included grade and elevation changes to control runoff, installation of a storm water sump with filtering system, and installation of a canopy. In FY 2006, the storm drain filter/separator serving the fuel island was cleaned on a monthly basis.

Spill Prevention and Cleanup

BMPs, such as good housekeeping and materials for spill capture and cleanup, were used to prevent pollutants from entering the MS4. Absorbent materials were used in many areas, such as around storage bins and as mats in garage areas, to catch leaks. These materials, in addition to spill kits, were made available in the event of an accidental spill. Procedures were also put in place for the prompt containment and cleanup of spills. Catch basins and drip pans were commonly used to capture leaks. Materials such as fiber rolls were used around selected storage bins and drain inlets.

Erosion and Sediment Control

Erosion and sediment control measures, such as silt fences were implemented at municipal facilities, as needed to prevent sediment from being transported to the MS4. At the Chollas Operations Yard, the Street Division replaced standard gravel bags with new longer-lasting Kevlar bags at the Roadways materials storage area, created a berm and weir to control runoff from the storage area, and installed a silt fence and Kevlar bags to reduce sediment runoff. These BMPs were maintained on a quarterly basis or as needed during the rainy season.

Other BMPs

- Wood pallets were used to place all Electrical Section stored material off the ground.
- Sumps contained runoff from washrack areas. These sumps were maintained and cleaned out as needed.
- Measures such as gravel bags straw wattles and grass swales were used to protect storm drain inlets.
- No garden hoses were connected to outside spigots.
- Activities were performed inside, where possible.
- Operations conducted outside were contained, when possible and areas were cleaned up when activities were completed.
- All debris, such as paint, concrete, plaster, etc. occurring as a result of operations were disposed of properly.
- Soilfloc™ was dispensed in the main silt basin at the West Miramar Landfill to enhance the settling of silt and clay (small particles) before discharging to San Clemente Creek.
- Silt-laden runoff was pumped from the main silt basin at the West Miramar Landfill between storm events and redispersed into the top deck mulch area.
- Silt was removed from the main silt basin at the West Miramar Landfill.
- Silt fencing was maintained at the active West Miramar Landfill.
- Mulch was applied to slopes at the West Miramar Landfill as needed.
- Tackifier was applied to selected landfill slopes as needed.

- Straw wattles were added to landfill slopes where necessary.

Inspection

Municipal areas were inspected at various frequencies (bi-weekly, monthly, quarterly) to ensure that BMPs were in good working order and that grounds were free of debris and spills and leaks from equipment or materials. At a minimum, all municipal facilities were inspected once in FY 2006. Wastewater collection drains were also inspected and maintained when needed.

For detailed BMPs implemented at municipal yards and operations stations, refer to the Equipment Division's, Street Division's, Environmental Services Department's, Water Department's, and the Facilities Maintenance Division's FY 2006 *Annual Reporting Forms* provided in Appendix B.

3.3.1.11 *Environmental Services Department Facilities*

The Environmental Services Department continued to implement the following BMPs at the Ridgheaven Court "Green Building" in FY 2006:

- Excess and fallen debris/vegetation was collected from the surrounding canyons to prevent from entering the storm drain system.
- Walkways were swept daily to remove trash and debris.

3.3.1.12 *Parks and Recreational Facilities*

The City's Park and Recreation Department is responsible for overseeing and maintaining 36,300 acres of developed and undeveloped open space; 337 parks including Balboa Park, Mission Trails Regional Park, and Mission Bay Park; 25 miles of shoreline from Sunset Cliffs to La Jolla; 13 pools that are open year round; three public golf complexes; 51 recreation centers; and 25 tennis sites.

In FY 2006, the Park and Recreation Department continued to implement its *Master Set of Best Management Practices Manual*, which was developed as a storm water pollution prevention reference guide for employees. The Manual includes 31 specific BMPs that are divided into four categories: organic, maintenance, chemical, and administrative. The Manual was developed to provide employees with a standard and consistent approach for performing job activities and reducing and eliminating impacts to water quality.

In FY 2006, ESD staff coordinated with Petco Park staff on the removal of 70,000 square feet of sod and reused it to cover nearly two football fields of a Park and Recreation Department site. This activity prevented the loose dirt from the site from entering the storm drain channel.

Staff Training. In FY 2006, 768 out of 1,235 (62%) Park and Recreation Department employees received training in activity-specific storm water principles, and 245 supervisors received training on storm water statistics collection. Twelve storm-water-related training sessions were conducted.

Cleanup Activities. In FY 2006, the Park and Recreation Department collected through staff and contract programs over 19,785 tons of trash. Cleanups were conducted during and after major holidays (e.g., Independence Day).

Facility Inspections. In FY 2006, the Park and Recreation Department performed inspections of its facilities, including those that it shared with other entities (such as schools). Refer to the completed *Municipal Inspection Forms* for Park and Recreation Department facilities in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

For more information on the BMPs implemented at City parks and recreational facilities, refer to the Park and Recreation Department's FY 2006 *Annual Reporting Form* in Appendix B.

3.3.1.13 *Police Facilities*

The City's Police Department maintains 13 facilities. These facilities consist of a police headquarters, police stations and garages, a horse stable, a pistol range, and a canine facility. A summary of the practices implemented by the Police Department in FY 2006 is provided below:

- Operational BMPs were implemented for the Police Mounted Unit to provide for the clean up of horse manure on City streets and other public places.
- At the Police Headquarters building, the landscape irrigation was reduced to avoid excess runoff. Trash pickup and tailgate meetings were held twice a week to update staff on the BMPs being implemented for the Headquarters building.
- Informational meetings were held with staff sergeants and other personnel to assure that BMPs were understood and being implemented.
- The Police Department conducted scheduled cleanings of parking lots, inspections of rooftop drains and gutters, trash pickups, and cleaning of storm drain inlets to prevent contaminants from reaching floodways.
- The Police Department spent \$77,186 in FY 2006 to clean up contaminants from City streets and sidewalks. Irrigation components were maintained and repaired as necessary to avoid excess runoff.

Additional BMPs first implemented in FY 2003 and FY 2004 continued to be employed in FY 2006, including:

- Lids were provided for all dumpsters and were kept closed at all times.
- Leaking dumpsters were replaced, as needed.
- Irrigation systems were maintained and adjusted, as needed, to prevent excess runoff.
- Facilities, including storage areas, storm drain inlets, and roof drains, were inspected regularly to prevent contamination of waterways.
- Trash and litter abatement procedures were implemented at all facilities, including parking lots.
- The Police Department implemented BMPs for the Air Support Unit located at Montgomery Field. Personnel assigned to that unit received training on these BMPs.
- Spill kits were provided for prompt cleanup of leaking vehicles or accidental spills.
- Hazardous materials were properly contained.
- BMPs were used to protect storm drain inlets near fueling stations and at the horse facility.
- Roll-off bins were properly covered, when necessary, to prevent storm water contact.
- Modified drainage at the pistol range and stables prevented contaminated runoff from entering the MS4.

- Procedures for washing vehicles and horse trailers were in place. Horses were only washed in designated areas. Horse manure and dog feces were collected and properly disposed of.

Refer to the completed *Municipal Inspection Forms* for Police Department facilities in Appendix B (**Comment No. 3, SWU:10-5015.02:hammp**).

For more information on BMPs implemented at Police facilities, refer to the Police Department's FY 2006 *Annual Reporting Form* provided in Appendix B.

3.3.1.14 *Fire Department Facilities*

The City's Fire-Rescue Department maintains forty-seven facilities and has developed and implemented a SWPPP for operations at these facilities. A summary of the BMPs implemented by the Fire-Rescue Department in FY 2006 is provided below:

In newer fire stations, all equipment was only washed in designated areas where water runoff was contained. Spill kits and drip pans were provided and used at all applicable facilities. Parking lots and other outdoor areas were routinely cleaned using dry sweeping methods. Water used for cleaning or other outdoor activities it was contained and disposed of properly. The irrigation system was adjusted to reduce excess runoff. BMPs were posted at all fire station bulletin boards.

For more information on BMPs implemented at Fire-Rescue Department facilities, refer to the Fire-Rescue Department's FY 2006 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.1.15 *City-Owned Leased Property*

The Real Estate Assets Department (READ) is responsible for overseeing City-owned leased property, including commercial, industrial and residential land uses. In addition to training staff in general storm water requirements, READ implemented additional BMPs in FY 2006. The following is a summary of these BMPs:

- Fifty-three City-owned leased and non-leased properties were inspected in FY 2006. Appropriate storm water pollution prevention fact sheets were distributed at the time of inspection. A copy of each completed checklist is maintained in READ's records retention files. Of the 53 properties, six of them were City-owned non-leased properties, and the completed checklist for each of these properties is included in Appendix B.
- Standard lease language requiring Water Quality Management Plan compliance and preparation was incorporated into all new/renewal leases. During the reporting period, there was a total of seven new or amended leases that included the storm water language.

For more information on BMPs implemented by the READ, refer to READ's FY 2006 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.2 *Training of Municipal Employees*

City staff received training in general storm water issues and requirements. Employees also received training aimed at reducing or eliminating the discharge of pollutants from specific

activities (activity-specific training). A summary of these trainings are provided in Section 12, *Education*.

3.4 MANAGEMENT OF PESTICIDES, HERBICIDES, AND FERTILIZERS

In FY 2006, the City took measures to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal areas and activities to the City's MS4. The Park and Recreation Department implemented BMPs included in its *Master Set of Best Management Practices Manual* developed as a storm water pollution prevention reference guide for employees. BMPs were implemented in priority areas, such as parks, landscaped areas, and municipal yards.

3.5 MUNICIPAL FACILITY INSPECTIONS

The City requires applicable City departments to inspect all high priority municipal facilities annually at a minimum. All municipal facilities were inspected in FY 2006. In many cases during the reporting period, municipal facilities were inspected more frequently, either formally (i.e., filling out a *Storm Water Municipal Inspection Form*) or informally (i.e., visual observations and walkthroughs). A copy of the *Storm Water Municipal Inspection Form* is provided at the end of this section.

The City took measures to ensure that all municipal facilities were in compliance with the requirements of the municipal permit and the City's Urban Runoff Management Plan. During the reporting period, if any issues were identified during facility inspections, the storm water representative responsible for inspections was trained to work with appropriate personnel to ensure that issues were addressed and ultimately resolved. These issues were reported to the Storm Water Division and were documented the using *Storm Water Municipal Inspection Form*.

Table 3-4 below is a summary of issues identified during both routine inspections and program evaluations at municipal facilities in FY 2006 and the actions that were taken to correct the problem (**Comment No. 4, SWU:10-5015.02:hammp**).

Table 3-4. Issues Identified During Inspections of Municipal Facilities.

Storm Water Issue Identified	Action Taken to Correct Problem
Need roof over fueling area	Observation at Fire-Rescue facilities; BMPs currently implemented to prevent/minimize runoff contact with fuel; if capital improvement projects to the fueling areas are required, then placement of the roof will be considered
Need readily available drip pans	Observation at park and recreation facilities; will consider prioritizing the acquisition of pans in future fiscal years
Need to keep trash cans and garbage bins covered	Emptied as required; will consider acquisition of covered trash cans in future fiscal years
Evidence of drips or leaks from equipment	Replaced leaking backflow equipment
Existence of pools/puddles	Reduced/eliminated over-irrigation
Unpaved areas subject to scour or erosion during rainfall	Asked for gravel
BMPs at storm drain inlets, catch basins, and curb inlets neglected	Gravel bags replaced; leaves removed; gravel removed from drains

Storm Water Issue Identified	Action Taken to Correct Problem
Sediment and debris accumulation in concrete swale	Cleaned concrete swale of sediment
Need better housekeeping	Removed dry tree leaves

3.6 ENFORCEMENT AND COMPLIANCE

3.6.1 *Hotline Complaint Investigations*

The Storm Water Division manages the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including municipal areas.

3.6.2 *Enforcement Actions*

The Storm Water Division's Investigation and Enforcement Section enforces the City's *Stormwater Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) Citywide, including municipal facilities and activities. The Storm Water Division took measures to ensure that all municipal facilities were in compliance with the requirements of the Municipal Permit and the City's Urban Runoff Management Plan. As described above, issues identified during municipal inspections are reported to the Storm Water Pollution Prevention Division and are documented on the municipal inspection forms.

In FY 2006, Storm Water Division Code Compliance Officers conducted approximately 32 investigations of potential discharges at municipal facilities or activities. Code Compliance Officers issued eight notices of violation. The remainder of the investigations resulted in the Code Compliance Officer determining that a storm water violation had not occurred, the discharge was not caused by the municipal activity/department/division, education was conducted, or a referral was made. See Appendix F for information about enforcement actions taken at municipal sites.

3.7 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

Future activities to be conducted at municipal facilities and activities are identified throughout the City's Urban Runoff Management Plan. Amendments to the City's Urban Runoff Management Plan associated with the Municipal Program are provided as Appendix A.

With the anticipated adoption of the Municipal Permit in mid FY 2007, the City will be gearing up for a major update of the Urban Runoff Management Plan. Storm Water Division staff will coordinate with the various departments and divisions to refine their storm water programs.

Figure 3-3. Municipal Inspection Form.

City of San Diego - Urban Runoff Management Plan
ANNUAL MUNICIPAL FACILITY SITE COMPLIANCE INSPECTION CHECKLIST
Page 1 of 2

Inspector: _____
Phone Number: _____
Date/Time: _____

I. Facility Information

Facility Name		
Street Address		Zip Code
Facility Contact Person		Phone
Standard Industrial Classification Code	Waste Discharge Identification Number	APN No.

II. Shared Facility Information
Is there more than one City department and/or division sharing this facility?
_____ No (skip this section) _____ Yes (complete this section)

Name of City Departments and/or Divisions Sharing Facility	Contact Person and Phone Number	Covered by this Inspection?

III. General Site Conditions and Runoff Management Practices Review

		S*	U*	N/A	Comments
General	Employees trained in storm water pollution prevention practices?				
	Common areas of yard reasonably clean and free of litter and debris?				
	Are parking areas generally clean and swept as needed?				
	Are storm drain inlets reasonably clean and free of debris?				
	Is there evidence of discharges, spills, and or leaks in any areas?				
Trash storage areas	Is area reasonably clean and uncluttered?				
	Are trash cans and garbage bins kept covered?				
Fueling areas	Is there a roof on fueling area?				
	Is there a mechanism in place for spill overflow protection?				
Vehicle/equipment maintenance area	Area reasonably clean and free of spills, leaks, or any other deleterious materials?				
	Is area covered overhead?				
	Dry clean up methods implemented?				
	Are there drip pans readily available for use?				
	Spill containment and cleanup kits readily available?				
	Storage areas covered and properly maintained?				

* S = Satisfactory, U = Unsatisfactory

Figure 3-4 Continued.

Page 2 of 2

III. General Site Conditions and Runoff Management Practices Review (Cont.)

		S	U	N/A	Comments
Vehicle/equipment washing areas (cont)	Are related activities contained within designated area?				
	Hazardous materials/liquids stored above ground?				
	Are there containment mechanisms in place?				
Materials loading and storage areas	Area reasonably clean and free of litter and debris?				
	Designated area covered overhead?				
Chemical handling areas	Areas reasonably clean and organized?				
	Is area indoors or properly covered?				
	Spill containment cleanup kits readily available?				
	If outdoors, is water from surrounding areas prevented from reaching chemical handling areas?				
	Hazardous materials/liquids stored above ground?				
	Dry clean up methods implemented?				

IV. Water Quality Management Plan (WQMP) Review**

Has a WQMP (or SWPPP) been developed for this yard? _____ Yes (complete this section and skip section V)
 _____ No (skip this section and complete section V)

		S	U	N/A	Comments
Facility site map	Identifies drainage areas and direction of flow				
	Identifies location of storm water conveyance system including ditches, inlets and storm drains				
	Identifies location of any existing storm water controls (e.g., berms, filters, grass swales, etc.)				
	Identifies location of building(s) and activity areas (e.g., fueling islands, hazardous materials storage areas, washing areas, etc.)				
Materials/activities used on site	List materials stored and handled on site, including storage location and typical quantities				
	Includes a narrative description of activities conducted on site which have the potential to result in discharges to storm drain system				
Potential Pollutants	Identifies potential pollutants which could be discharged from site given activities conducted at facility				
Best Management Practices (BMPs)	Describes BMPs implemented at facility to deal with each potential pollutant source identified				
	Minimum City wide BMPs listed				
	Storm water system regularly inspected/monitored				
Record keeping	Employee training records				
	Quarterly inspections records, if any				
	Storm water conveyance system monitoring (2/yr) ¹				

**The term Water Quality Management Plan (WQMP) is replacing the term Storm Water Pollution Prevention Plan (or SWPPP) for municipal facilities.

V. Water Quality Management Plan Status

Is facility in the process of developing a WQMP?

_____ Yes, expected completion date: _____

_____ No, this facility does not need a WQMP because _____

VI. Additional Comments (attach additional pages if necessary)

¹ Only required for NDPES General Storm Water Permit holders

4 INDUSTRIAL

The City continued to implement its Industrial Program during FY 2006. The City hired an environmental consultant/contractor qualified in conducting industrial inspections during this past fiscal year to assist with implementation of the industrial inspection program, to conduct inspections of industrial facilities, and to maintain an industrial inspection database. In addition, the City uses other City programs to conduct additional inspections of industrial facilities. The FY 2006 accomplishments achieved in each of these program elements are further described below.

4.1 PRIORITY SOURCES

The City commissioned its environmental consultant to review all available records in order to determine an inventory of industrial businesses. The City's consultant evaluated over 68,800 entries in order to determine an inventory. The City's watershed based prioritized inventory is included in Appendix C-1, which includes the name and address, watershed, a description of the activities, NAICS code, and priority taking into account pollutants generated and proximity to environmentally sensitive areas (**Comment No. 24, SWU:10-5015.02:hammp**).

The City's consultant, using the process illustrated in the flow chart in Figure 4-1, determined the priority of evaluated businesses. The City's method for prioritizing industrial facilities is illustrated in the flow chart below. This prioritization flow chart shows the six water quality threat factors considered when assigning priority, including the factors raised in **Comment No. 5 of SWU: 10-5015.02:hammp**. If the water quality threat for a facility is "yes" from any of the first five factors, the facility is ranked as high priority. A "yes" to the sixth water quality factor ranked the facility as medium priority. Facilities that receive "no" for all six factors were ranked as low priority.

The City's consultant, based on prioritization, identified 530 businesses that potentially needed inspection, summarized in Table 4-1.

Table 4-1. Summary of Businesses Selected for Inspection.

Facility Category ¹	Number Selected
BMP Follow-Ups	63
Paperwork Follow-ups	32
Annual HPI Inspections / Aggregate Facilities	10
Annual HPI Inspections / Recycling Facilities	30
Routine Inspections / New NOI	16
Routine Inspections / Potential Non-Filers	348
Routine Inspections / Hanson Tenant	14
Routine Inspections / Miscellaneous Additions	17
Total	530

¹ WHILE SOME BUSINESSES FELL INTO MORE THAN ONE FACILITY CATEGORY, BUSINESSES ARE ONLY REPRESENTED ONCE IN THE TABLE ABOVE, INCLUDED IN THE CATEGORY THAT BEST DESCRIBES THE PRIMARY REASON THE BUSINESS WAS SELECTED FOR INSPECTION.

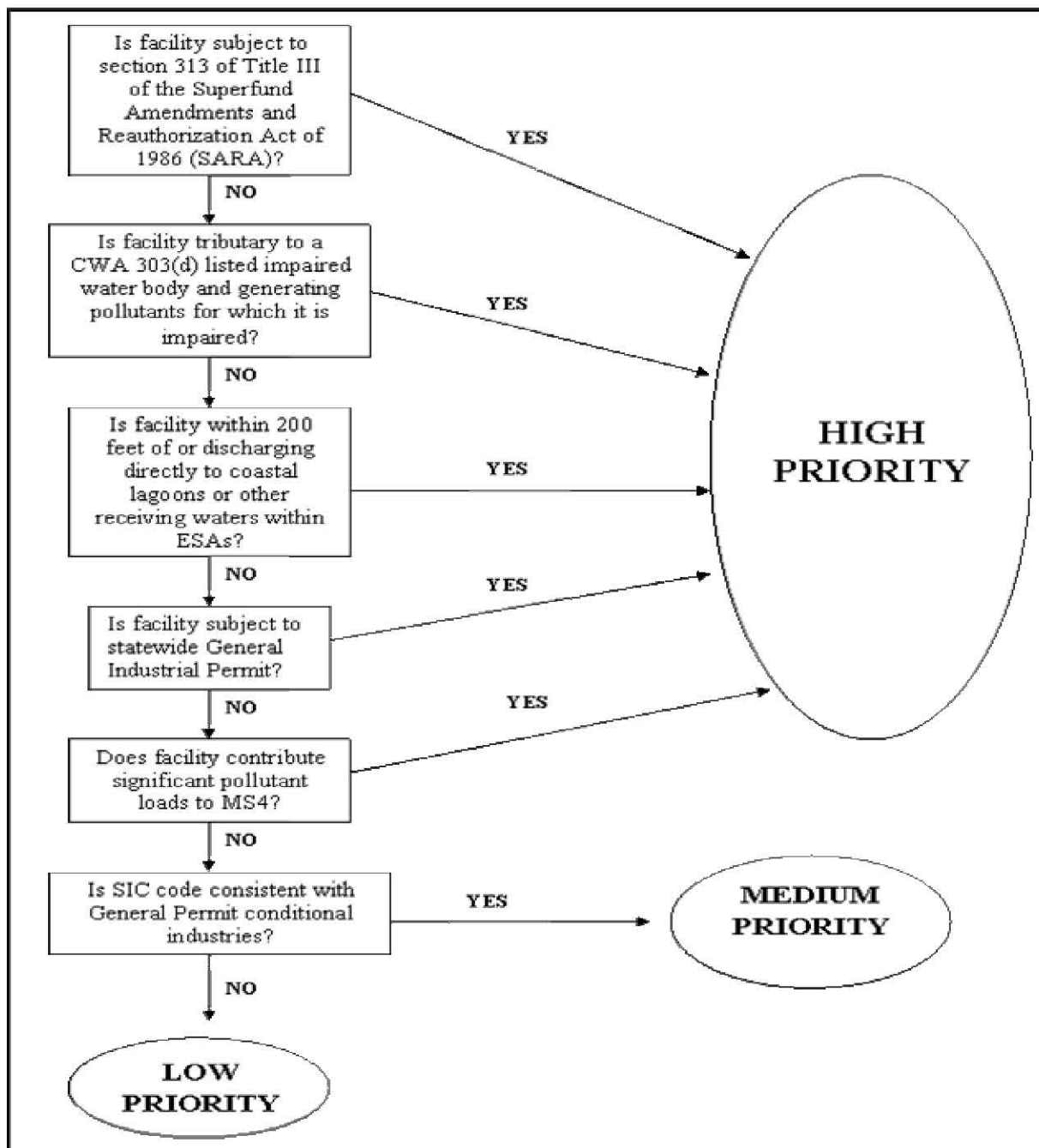


Figure 4-1. Industrial Facilities Water Quality Threat Prioritization Flow Chart.

4.2 BMP REQUIREMENTS

Minimum BMPs required for industrial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's Urban Runoff Management Plan. Industrial Facilities must also comply with the requirements set forth in the City's Storm Water Ordinance. The City also uses the California Stormwater Quality Association (CASQA) Industrial Handbook as a guidance document for industries implementing the required BMPs. When reissued by the San Diego Regional Water Quality Control Board, the City will review the newly updated Industrial Storm Water General Permit for changes in BMP requirements.

4.3 BMP IMPLEMENTATION

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducts inspections and investigations of facilities and takes enforcement actions where appropriate. A very important element of the Industrial Program is conducting education and outreach efforts to industries. These program components are further described below.

4.3.1 Education and Outreach

The City has an ongoing education and outreach element included in its industrial sector management. Industrial inspectors distributed fact sheets and educational information during inspections as appropriate. These materials are described and highlighted in the following sections.

Fact Sheets

Fact sheets with information specific to industrial facilities and activities were distributed during inspections conducted during the reporting period. Fact sheets with topics applicable to both industrial and commercial activities include:

- Best Management Practice Websites
- Industrial Facilities/Regulations
- Industrial Facilities/Permit Compliance
- Impervious Surfaces
- Dumpsters & Loading Dock Areas
- Spills

In FY 2006, these fact sheets were provided to industries during inspections, investigation, via the *Think Blue* website, or whenever requested. Over 45,000 were distributed with business license renewals during FY 2006 as well.

Think Blue Website

In FY 2006, the *Think Blue* website continued to provide information for industrial facilities within the City about storm water regulations and facility and activity requirements. The website posted the fact sheets created for industrial facilities as well as the City's Urban Runoff Management Plan, which outlines required BMPs for industrial sites. The website also provided resources and links for industries on BMPs.

Industrial Facility Leases

The Real Estate Assets Department amended new and renewing leases to include storm water requirements for City-owned leased property, including industrial sites. This language educates leaseholders that they must take measures to reduce the discharge of pollutants in runoff and can and will be accountable if storm water requirements are not met. In FY 2006, all new and amended leases contained language on storm water pollution prevention.

4.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with industrial storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

4.4.1 Industrial Facility Inspections

Based on the prioritization process, 315 facilities received full industrial inspections. A complete inventory of inspections is included as Appendix C-2. The inspection inventory includes the prioritization, watershed, and inspection date for each facility. A list of those facilities that were inspected by the Metropolitan Waste Water's Pretreatment Program is included as Appendix C-3. A list of those facilities that were identified but not inspected and justifications is included as Appendix C-4. The City certifies that the industrial facilities listed in Appendix C-5 meet all the requirement of Order No. 2001-01, Section F.3.b.(6).(b).ii.

4.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including industrial facilities. A total of 1,902 contacts were logged by staff and 1,531 investigations were carried out by Code Compliance staff (remaining contacts were requests for information). Of these, approximately 19 investigations were conducted at industrial sites in FY 2006.

4.4.3 Reporting of Non-Compliant Sites

All inspections performed at industrial facilities, including inspection information and findings, are reported to the Regional Board. A complete list of facilities report to the Regional Board for violation of the State Industrial Permit is included as Appendix C-6.

4.4.4 Enforcement Actions

The City's process for inspection of industrial facilities ensures that appropriate enforcement actions are taken on facilities with violations of the City's storm water ordinances. During this reporting period, there were no instances of active discharges requiring enforcement; violations noted were concerned with improper or inadequate BMP installation and maintenance. Due to the non-discharge nature of the violations noted during inspections, education was the main enforcement action conducted. Appendix C-7 and Table 4-2 provide a summary of the enforcement actions (primarily educational) taken (**Comment Nos. 7 and 8, SWU:10-5015.02:hammp**).

Inspections also identified a number of businesses that did not conduct the required monitoring (Appendix C-8). These businesses will receive a letter from the City informing them of the monitoring requirements. All but one of these businesses have State Industrial Permits and have been previously reported to the Regional Board for not conducting monitoring. This one business is new to the Industrial Program this reporting year and not subject to the State Industrial Permit. The City will work with this one business in order to ensure it is aware of and complies with all monitoring requirements (**Comment No. 6, SWU:10-5015.02:hammp**).

Table 4-2. Education Materials Distributed During Inspections.

Educational Material	# Distributed
Clean Water 3 C's Handout	33
Agua Limpia 4 C's, Spanish Language Handout	15
NONA/NEC Info and Forms	55

NOI Info	32
General BMP Overview, handout	54
<i>Think Blue</i> Flyer: Industrial Facilities	13
<i>Think Blue</i> Flyer: Impervious Surfaces	17
<i>Think Blue</i> Flyer: Automotive Fluids	4
<i>Think Blue</i> Flyer: Spills	11
<i>Think Blue</i> Flyer: Dumpsters & Loading Docks	3
Total	237

Refer to Appendix F for information about other enforcement actions taken at industrial sites as a result of investigations in FY 2006.

4.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the Industrial Program as permitted in Order No. 2001-01 and all subsequent revisions.

5 COMMERCIAL

The City continued to implement the Commercial Component of its Urban Runoff Management Plan to reduce pollutants from commercial activities. Highlights of the Commercial Program include development and dissemination of educational materials for businesses, participation in outreach events, storm water inspection of commercial facilities, and enforcement actions on non-compliant sites. These program components are described below.

5.1 PRIORITY SOURCES

The City's inventory of facilities is included in Appendix D-1.

5.2 BMP REQUIREMENTS

Minimum BMPs required for industrial and commercial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's Urban Runoff Management Plan. Commercial businesses must also comply with the prohibitions and requirements set forth in the City's Storm Water Ordinance. The City also uses the California Stormwater Quality Association (CASQA) Commercial Handbook as a guidance document for businesses currently implementing required BMPs and those businesses that began implementing BMPs due to enforcement activities.

5.3 COMMERCIAL BMP IMPLEMENTATION

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducts education and outreach efforts, performs inspections and investigations of facilities, and takes enforcement actions where appropriate. These program components are further described below.

5.3.1 Education and Outreach

The City conducts important education and outreach efforts for commercial activities. These efforts are an essential component to ensuring compliance and understanding of applicable storm water requirements.

5.3.1.1 Business License Storm Water Compliance Flier

The City developed the Business License Storm Water Compliance Flyer. The flyer describes the interest businesses have in clean beaches and bays, summarizes the relevant Municipal Code section, highlights business activities that reduce storm drain pollution, and provides telephone, email, and website address should businesses need additional information. These fliers are mailed to businesses during the business license department annual renewal process. Approximately 45,000 notices were sent in FY 2006 (**Comment No. 9, SWU:10-5015.02:hammp**).

5.3.1.2 Fact Sheets

The Storm Water Division created and distributed fact sheets to educate businesses on topics related to storm water. Storm water public education and outreach staff created fact sheets specific to a variety of commercial activities that were distributed by Storm Water Division staff and other city employees during the reporting period. Table 5-1 is a summary of the fact sheets that were distributed in FY 2006. About 6,298 materials were distributed in FY 2006 (**Comment No. 10, SWU:10-5015.02:hammp**).

Table 5-1. Fact Sheets Distributed in FY 2006.

Fact Sheet	Number Distributed
Useful Tips For Cleaning Up Ash	0
Automotive Fluids	1,050
Car Washing	500
Concrete Washout	310
Construction Area Practices	250
Dumpsters & Loading Dock Areas	1,008
Impervious Surfaces	630
Restaurants	975
Sewer Overflows	250
Spills	250
SUSMP	250
Swimming Pools	375
Water Discharges	250
BMP Websites	200
Total	6,298

These fact sheets were provided to businesses during inspections or investigation and were available on the *Think Blue* website (<http://www.ThinkBlueSD.org>).

5.3.1.3 *Think Blue Website*

In FY 2006, the *Think Blue* website continued to provide information about storm water regulations and requirements associated with commercial activities. The City's Urban Runoff Management Plan outlines required minimum BMPs, and the *Think Blue* website posted fact sheets created to assist citizens and businesses understand proper BMPs for specific activities. The website also provided resources and links for commercial activities.

5.3.1.4 *Other Educational Materials*

The City developed of a series of mobile business informational cards for businesses to reference when working in the field. The cards provide storm water information, such as pertinent regulations and suggested BMPs to comply with storm water requirements for specific businesses. In FY 2006, 128 materials targeting pressure wash operators and impervious surface cleaning were distributed.

5.3.1.5 *Grease Disposal Program*

In FY 2006, the Metropolitan Wastewater Department continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease. The Food Establishment Waste Discharge (FEWD) Program regulates restaurants' sewer grease trap to ensure proper function and also reviews disposal procedures for oil and cooking grease. During the reporting period, information was provided to restaurants through the Metropolitan Wastewater Department's website, educational brochures, and a web-based video. The FEWD Program also makes referrals to the Storm Water Division regarding the restaurants that it inspects when necessary.

5.4 COMPLIANCE AND ENFORCEMENT

The City takes measures to ensure that facilities are complying with storm water regulations associated with commercial activities. These include inspections, hotline complaint investigations, and enforcement actions, where necessary.

5.4.1 Commercial Facility Inspections

During this reporting period, 4,473 restaurants were inspected. A table is provided in Appendix D-2 that lists the food establishments inspected in FY 2006.

5.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. A total of 1,902 contacts were logged by staff and 1,531 investigations were carried out by Code Compliance staff (remaining contacts were requests for information). Of these, approximately 839 investigations were conducted at commercial/restaurant sites in FY 2006 (**Comment Nos. 13 and 14, SWU:10-5015.02:hammp**).

5.4.3 Reporting of Non-Compliant Sites

The FEWD Program makes referrals to the Storm Water Program regarding the restaurants that it inspects when an active discharge is involved. Code Compliance Officers are assigned to the cases to conduct investigations and implement the proper enforcement actions. In FY 2006, the Storm Water Division received and investigated 16 reports from the FEWD Program, as described below (**Comment No. 11, SWU:10-5015.02:hammp**).

5.4.4 Enforcement Actions

The City's process for inspection and enforcement of violations ensures that commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Storm Water Division's Investigations and Enforcements Section for follow-up investigation and enforcement. Refer to Appendix F for a table of enforcement actions taken in FY 2006 (**Comment Nos. 11 and 14, SWU:10-5015.02:hammp**).

Specifically, of the 16 reports from the FEWD Program in FY 2006, nine resulted in the issuance of a notice of violation, four citations, and four educational enforcement actions. One site was issued one notice of violation and two citations.

5.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the Commercial Program as permitted in Order No. 2001-01 and all subsequent revisions. The City's consultant will be tasked to conduct commercial inspections as well as industrial inspections, which will contribute to enhancing the City's commercial inspection efforts (**Comment No. 12, SWU:10-5015.02:hammp**).

6 RESIDENTIAL

The City continued to implement the Residential Component of its Urban Runoff Management Plan to prevent and reduce pollutants in runoff from residential areas within the City. Highlights of the City's Residential Component during FY 2006 include distribution of numerous education and outreach materials, development of various residential programs, events to educate residents and reduce pollutants, and enforcement of storm water violations from residential activities. These program elements are further described below.

6.1 PRIORITY SOURCES

All residential areas in the City of San Diego have been identified as high priority. There have been no updates to the designated priority.

6.2 BMP REQUIREMENTS

Minimum BMPs for residential areas are identified in Section 2.6, *Residential Uses*, of the City's Urban Runoff Management Plan. Residential activities must also be carried out in compliance with the requirements set forth in the City's Storm Water Ordinance.

6.3 RESIDENTIAL BMP IMPLEMENTATION

To ensure facility compliance with these required BMPs and other storm water regulations, the City conducts education and outreach efforts, implements various programs, performs inspections and investigations, and takes enforcement actions where appropriate. These program components are further described below.

6.3.1 Education and Outreach

The City implemented a substantial education and outreach campaign directed at residential activities. Education and outreach efforts specific to residential activities are summarized below. For a more detailed description of the City's Education Component, refer to Section 12, *Education*. Education and outreach efforts conducted for residents as part of the Household Hazardous Waste Program is described in below in Section 6.3.2, *Household Hazardous Waste Program*.

6.3.1.1 Public Service Announcements

In FY 2006, the Storm Water Division continued to implement the *Think Blue* media campaign to educate citizens on storm water issues and pollution prevention measures. The campaign was broadcast on local radio and television stations to reach English- and Spanish-speaking communities. A detailed discussion of the *Think Blue* media campaign is provided in Section 12.1.4, *Think Blue Campaign – FY 2006*.

6.3.1.2 Think Blue Website

In FY 2006, the *Think Blue* website (<http://www.ThinkBlueSD.org>) continued to provide information, storm water regulations, and requirements associated with residential activities. The website made available fact sheets created for these activities as well as the City's Urban Runoff Management Plan, which outlines required minimum BMPs. The website also provided an interactive page for residents where they can find tips for preventing or reducing pollutants from different areas of the home. The site also continued to feature the Chollas Creek Environmental Improvement and Awareness Programs, which provided information on the City's

efforts to restore Chollas Creek and improve its water quality. The website is estimated to have received about 400,000 hits in FY 2006.

6.3.1.3 *Fact Sheets and Brochures*

The Storm Water Division creates and distributes educational fact sheets and brochures to educate residents and businesses on topics related to storm water. Fact sheets and brochures, specific to a variety of residential activities include:

- Easy Solutions for Keeping Our Creeks, Bays, and Ocean Clean
- Clean Water Leader Cards
- Clean Water Leader Doorhanger
- Sewer Overflows from Private Property
- Swimming Pools and Spas
- Water Discharges from Private Property
- Spills

These fact sheets are provided to businesses during inspections, investigation, via the *Think Blue* website, or whenever requested. For a tally of the number of residential fact sheets and brochures distributed by the City in FY 2006, refer to Section 12, *Education*.

6.3.1.4 *Outreach Events*

During the reporting period, the Storm Water Pollution Prevention Division with the assistance of City Council office staff and media partners participated in a number of outreach events, particularly to residents in the Chollas Creek Watershed. Refer to Table 12-4 in Section 12 for a listing of the residential outreach events conducted by the City.

6.3.2 *Household Hazardous Waste Program*

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for public education and the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. ESD also collected HHW from 88 certified collection centers within the City in FY 2006.

In FY 2006, ESD conducted education and outreach efforts directed at disseminating HHW information to residents. These efforts included numerous outreach events promoted with PSAs and other media advertisements, distributing educational materials, establishment of hotline to answer questions and set up appointments for HHW disposal, water bill informational inserts to be included in resident's water bill. Detailed information about these efforts is included in ESD's FY 2006 *Annual Reporting Form* provided in Appendix B.

6.3.3 *Grease Disposal Program*

In FY 2006, the Metropolitan Wastewater Department (MWWDD) continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aimed to educate residents and business on the proper disposal alternatives for fats, oils, and grease and directed residents where to dispose oil and grease at the Miramar Landfill. As part of the education and outreach

for this program, MWWWD provided information (fact sheet and video) through its departmental website regarding proper grease disposal in both English and Spanish.

6.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with storm water regulations associated with residential activities. These include patrol of residential areas, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

6.4.1 *Residential Investigations*

Code enforcement officers conduct routine patrol of residential areas and investigate complaints from the storm water hotline. The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including residential areas and activities. In FY 2006, a total of 1,902 contacts (not all were residential related) were logged by staff, and 449 investigations pertaining to residential sites were conducted (**Comment No. 15, SWU:10-5015.02:hammp**).

6.4.2 *Enforcement Actions*

Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's Urban Runoff Management Plan. Refer to Section 9, *Enforcement*, and Appendix F for information about enforcement actions taken in FY 2006 (**Comment No. 15, SWU:10-5015.02:hammp**).

6.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City intends to continue implementation of the residential component as identified in its Urban Runoff Management Plan.

7 LAND USE PLANNING FOR NEW DEVELOPMENT

The City continued to implement the Planning and Development Component of the URMP to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 2006 include continued implementation of the *Storm Water Standards Manual*, implementation of the *Source Water Protection Guidelines for New Development*, continued integration of storm water protection policies in the City's Community Plans and General Plan, and continued development of the San Dieguito Watershed Management Plan.

7.1 LONG-RANGE PLANNING

7.1.1 General Plan

On October 22, 2002, the City Council adopted the Strategic Framework Element as an amendment to the City's 1979 *Progress Guide and General Plan* (1979 General Plan). This action initiated the comprehensive update of the 1979 General Plan. The Strategic Framework Element provided a new strategy for the City's future growth and development, a basis for a new Land Use Element, and a general policy framework for updating the existing elements in the 1979 General Plan. Water quality and watershed protection principles were incorporated into the Conservation and the Environment section of the document, and the land use strategy proposed in it incorporated a number of site and street design policies that achieve water quality and watershed protection principles, such as reducing impervious surfaces and increasing vegetation. The water quality and watershed principles identified in the URMP were incorporated into the Strategic Framework Element and associated Five-Year Action Plan and adopted by the City Council into the General Plan.

The Five-Year Action Plan included direction to update the Conservation Element to further address storm water and urban runoff. It also included recommendations to update other policies and regulations to address storm water and urban runoff, including amendments to the Street Design Manual, the Drainage Design Manual, and the Land Development Code. In May 2006, the Planning Department released revised drafts of the General Plan Update, and the Strategic Framework Element was incorporated into the introductory section of the Plan and no longer was a separate element.

General Plan elements under development in FY 2006 relevant to urban runoff include:

Land Use and Community Planning Element. The proposed new introductory sections of the General Plan and the Land Use and Community Planning Element (Land Use Element) incorporate the adopted Strategic Framework Element City of Villages strategy and provide policy direction in the areas of community planning, zoning and policy consistency, plan amendment process, coastal planning, airport land use planning, balanced communities, equitable development, environmental justice, and annexations. The element includes the General Plan Land Use and Street Systems Map, a generalized land use and streets composite map based upon adopted community plans.

The City of Villages strategy is a major component of the Land Use and Community Planning Element. This strategy calls for new growth to be targeted in mixed-use village centers in order to create lively activity centers, provide housing, improve walkability, help support a state-of-the-

art transit system, and provide an alternative to the development of outlying areas. Combined with the Citywide policies, the strategy helps to ensure that growth and redevelopment will contribute towards long-term healthy environmental, social, and economic conditions within the City and its communities.

In addition, the Land Use Element clarifies the roles of the General Plan and community plans and their relationships. It establishes community plans as integral components of the General Plan, as the community plans provide the parcel-level detail regarding land use designations, density and intensity that is required by state law. Further, Land Use Element policies require that all projects conform to community plan policies, and that zoning is established which is consistent with the community plan.

The Land Use and Community Planning Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Conservation Element. The Conservation Element focuses on conserving natural resources, protecting unique landforms, preserving and managing the open space system, beaches and watercourses, preventing and reducing pollution, and ensuring preservation of our quality of life in San Diego. A wide range of policies are proposed in the General Plan Update to help guide development and provide a conservation “blueprint” so that San Diego’s environmental quality and heritage are preserved, maintained, improved and can be sustained for current and future generations. Many of the policies described in the element are already being implemented throughout the City, via specific programs and plans administered by various City departments, such as the Storm Water Pollution Prevention Program, the Sustainable Communities Program, and the Multiple Species Conservation Program (MSCP). The General Plan provides the broad overall context to view the purpose and interrelationships of these and additional programs, and to establish citywide goals for conservation of resources that will be refined based on individual community’s conservation goals. This element extensively discusses storm water and urban runoff issues, especially in relation to land development, habitat preservation, and drinking water supply.

Key points:

- Protect and conserve landforms, community open spaces, habitat areas, agricultural areas, and other environmentally sensitive lands,
- Use a watershed management approach to protecting water supplies. Seek additional dedicated water supplies and increased water conservation. Use best management practices to help prevent storm water and urban runoff pollution,
- Preserve natural habitats pursuant to the MSCP and conserve wetlands through implementation of a “no net loss” approach,
- Encourage the construction and operation of green buildings. Develop and protect a sustainable urban/community forest,
- Support environmental education so that people are aware of and more responsible for their impacts on the environment.

The Conservation Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Mobility Element. An overall goal of the Mobility Element is to further the attainment of a balanced, multi-modal transportation network that improves mobility and minimizes environmental and neighborhood impacts, including storm water and urban runoff pollution. The element includes a wide range of policies which advance a strategy for congestion relief and

increased transportation choices in a manner that strengthens the City of Villages land use vision and fosters storm water pollution prevention by reducing automobile trips and demand for large parking areas. The Mobility and Land Use elements of the General Plan Update are closely linked. The Land Use Element identifies existing and planned land uses, and the Mobility Element identifies the proposed transportation network and strategies which have been designed to meet the future transportation needs generated by the land uses.

The Mobility Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Urban Design Element. This element includes language on minimizing the amount of surface parking lots for both aesthetic purposes and to allow for the infiltration of urban runoff into the ground. It calls for the use of trees and other landscape to provide shade, screening, and filtering of storm water runoff in parking lots.

The Urban Design Element draft is available online at <http://www.sandiego.gov/cityofvillages>.

Public Facilities, Services, and Safety Element. This element specifically discusses storm water infrastructure in the City. It calls for the protection of beneficial water resources through pollution prevention and interception efforts. The element states as a goal for the City to have a storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. It recognizes both the roles of structural and non-structural BMPs in preventing pollution in order to comply with federal and state mandates regarding storm water pollution and the need for the City to engage in comprehensive storm water planning, secure funding sources, and strengthen cooperation with other stakeholders in the region.

The Public Facilities, Services, and Safety Element is available online at <http://www.sandiego.gov/cityofvillages>.

Recreation Element. This element recognizes the importance of parks and open space in the City not only for recreational purposes, but also to allow for the infiltration of urban runoff into the ground.

The Recreation Element is available online at <http://www.sandiego.gov/cityofvillages>.

The City Planning and Community Investment Department anticipates completing the General Plan Update and obtaining City Council adoption of it in spring 2007.

7.1.2 Community Plans

Community plans are documents that guide the growth and development of a community. They include land use designations, design recommendations, and policies on a wide range of topics, including water quality protection. They are a part of the City's General Plan. Plans currently underway are addressing community-specific policies related to urban runoff and water quality (The more general, Citywide policies have been incorporated into the draft Conservation Element of the General Plan.) Community-specific policies include:

- **Ocean Beach.** Broad goals and recommendations relating to urban runoff and water quality have been drafted as part of the update to the Ocean Beach Community Plan. Progress on this community plan is reported in the FY 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

- **Mission Valley.** Work is proceeding on update to the Mission Valley Community Plan. This plan is significant to water quality since the San Diego River flows through the valley. Progress on this community plan is reported in the FY 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

7.1.3 Street Design Manual

In November of 2002, the City Council approved a new revision of the Street Design Manual that included guidelines for reduced impervious surfaces and increased natural filter systems. These guidelines included reduced street width standards (curb to curb) for local residential streets, parkway standards (curb to property line) that allow large canopy form tree species to be planted along with a wider area for landscaping opportunities, design provisions that allow landscaping opportunities in the majority of the surface area of raised islands (e.g., raised medians), and design requirements that required all traffic calming installations to have a landscape element. Throughout FY 2006, the Street Design Manual was applied to new development.

7.1.4 Drainage Design Manual

The Engineering and Capital Projects Department began work in FY 2006 on a City supplement to the County of San Diego's *Drainage Design Manual* and *Hydrology Manual*. As part of this effort, the Engineering and Capital Projects Department began coordinating the Storm Water Division staff to incorporate new requirements associated with storm water quality protection.

7.1.5 Source Water Protection Guidelines for New Development

In FY 2004, the Water Department produced the *Source Water Protection Guidelines for New Development* (Guidelines) to guide future activities in the San Diego County watersheds that drain into drinking water reservoirs (i.e., Hodges, Sutherland, San Vicente, El Capitan, Otay, Barrett, and Morena). The Guidelines were prepared to assist municipal agencies, designers, land planners, developers, and citizens to conduct site design planning and select BMPs that protect or improve the quality of runoff draining into drinking water reservoirs. These Guidelines do not address water quality concerns during construction activities but rather are designed to help project proponents and reviewers address potential water quality issues over the life of the project by incorporating better site designs and source controls to protect source water. This process is applicable to nearly all projects. In addition, for large or complex projects, the Guidelines are intended to help focus the selection of treatment BMPs that are most effective (based on published studies) at reducing the pollutants of concern for drinking water protection in San Diego County.

In FY 2006, the Water Department employed the Guidelines during design work for two projects, one at Barrett Reservoir and the other in Sutherland Reservoir.

7.1.6 Watershed & Resource Management Plans

San Dieguito River Watershed Management Plan

This activity is reported in the Fiscal Year 2006 San Diego River Watershed Urban Runoff Management Program Annual Report.

Chollas Creek Enhancement Program

Chollas Creek is a natural drainage system that traverses inner-city neighborhoods within the Greater Mid-City (City Heights, Eastern), Encanto Neighborhoods, Southeastern San Diego, and Barrio Logan communities, from its headwaters in La Mesa and Lemon Grove to San Diego Bay. The historic channel and floodplain of Chollas Creek has been altered substantially as a result of decades of development and human activity. Today, the Chollas Creek-bed is an urban creek with little native vegetation, and much of the channel is armored or is concrete channel and culverts. The Chollas Creek Enhancement Program is intended to foster the restoration and rehabilitation of the creek's remaining wetlands, using existing wetland remnants as the source for wetland mitigation and enhancement for projects that disrupt wetland environments within the Chollas Creek geographic area and hydrological basin.

Progress regarding the implementation of the Chollas Creek Enhancement Program is reported in the FY 2006 San Diego Bay Watershed Urban Runoff Management Program Annual Report.

San Diego River Master Plan

The San Diego River corridor has been degraded by development and sand and gravel mining. The San Diego River Park planning effort, lead by the Park and Recreation Department, seeks to improve water quality, sediment transport, and groundwater recharge, while also expanding riparian habitat. The master plan contains principles and recommendations for restoring San Diego River water quality, among other goals.

Progress regarding the preparation and implementation of the San Diego River Master Plan is reported in the FY 2006 San Diego River Urban Runoff Management Program Annual Report.

San Dieguito River Park Concept Plan

This plan establishes the vision and goals for the future use of the San Dieguito River Valley. It describes the plan context and purposes, discusses planning considerations, and identifies plan objectives. It serves as a policy document for the San Diego River Park Joint Powers Authority. The overall goal of the plan is to: preserve land within the Focused Planning Area of the San Dieguito River Park as a regional open space greenway and park system that protects the natural waterways and the natural and cultural resources; provide compatible recreational opportunities that do not damage sensitive lands; and provide a continuous and coordinated system of preserved lands with a connecting corridor of walking, equestrian, and bicycle trails encompassing the San Dieguito River Valley from the ocean to the river's source and beyond.

Progress regarding the preparation and implementation of the San Dieguito River Park Concept Plan is reported in the FY 2006 San Dieguito River Urban Runoff Management Program Annual Report.

San Pasqual Vision Plan

The purpose of the San Pasqual Vision Plan is to set forth a comprehensive vision for the San Pasqual Valley and action items for its protection. Plan goals include protecting the quality and capacity of the San Pasqual/Lake Hodges groundwater basin to ensure that this invaluable asset as a water resource is not compromised and ensuring the long-term protection of the Valley's unique agricultural, biological, and water resources. This includes, for example,

restricting urban development in the valley, which simultaneously helps protect its agricultural assets and preserve its natural infiltration capabilities to treat storm water. The City Planning and Community Investment Department is responsible for implementing various components of this plan.

Progress regarding the implementation of the San Pasqual Vision Plan is reported in the FY 2006 San Dieguito River Urban Runoff Management Program Annual Report.

7.2 PROJECT PLANNING AND DESIGN

7.2.1 Storm Water Development Regulations

In December 2002, the City began implementation of the *Storm Water Standards Manual* for both private and public projects. The *Storm Water Standards Manual* incorporated additional permanent (including Standard Urban Storm Water Mitigation Plan, or SUSMP, requirements) and construction BMP requirements with the City's existing storm water-related development regulations, to reduce pollutants and control runoff flows from all new development and redevelopment projects. To help simplify the process (and thereby improve the implementation of the requirements), all of the City's storm water-related requirements are included in the *Storm Water Standards Manual*. As an implementation manual to the City's Municipal Code, the *Storm Water Standards Manual* benefits from the unique position of being fully enforceable and "updateable" as new innovations occur or state construction or permanent BMP requirements change. During the project planning and design review phase of development, the permanent and construction BMP requirements in the *Storm Water Standards Manual* are applied to development projects as further described below.

7.2.1.1 Public Projects

The Engineering and Capital Projects (ECP) Department is responsible for planning, design and construction of most capital improvement projects (some capital improvement projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department). All project managers of capital improvements program (CIP) projects that awarded construction contracts on or after December 10, 2002, have been required to incorporate the applicable permanent BMP requirements set forth in the *Storm Water Standards Manual* into the project (specifications and plans) during the design and contract award phases to ensure that storm water issues have been addressed in the project's permanent design. To assist project managers, storm water language was included in the CIP contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed "peer plan check" for a check on water quality design measures. Revisions are made to the design and then, at the project manager's discretion, the project is routed to the Storm Water Division staff for a more detailed and formal review. If permanent treatment BMPs are required, the design is discussed and coordinated with the department that will be maintaining the permanent BMP facility after it is built. This phase of the project is being completed at about the 75% or 90% design levels. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings.

The Storm Water Division provides an optional review of CIP projects for compliance with the City's *Storm Water Standards*. In addition to the plans, the Storm Water Division's engineering review staff often reviews Water Quality Technical Reports (WQTR), Storm Water Pollution Prevention Plans (SWPPP), and Water Pollution Control Plans (WPCP). After each review, a memo is sent to the City project manager informing him or her whether or not the project has

met the requirements of the City's *Storm Water Standards* and, if needed, what additional documents, plan revisions, etc. are required in order for those requirements to be met. In FY 2006, there were **15 CIP priority projects**, which were required to prepare WQTRs (some projects may not have been captured in the URMP reporting) (**Comment No. 16, SWU:10-5015.02:hammp**).

7.2.1.2 *Private Development*

The Development Services Department (DSD) is responsible for managing the development project review services for private development in the City of San Diego. In December 2002, the Land Development Review Division of DSD adopted and began implementation of the *Storm Water Standards Manual*. Private projects are reviewed for conformance with the *Storm Water Standards Manual* requirements by the Engineering Review and Plan Checking sections of the Land Development Review Division. To ensure consistency and adequate implementation of the storm water requirements, staff from these sections meet on a bi-weekly basis to discuss specific issues on development projects. Before discretionary projects are scheduled for decisionmaker approval or ministerial permits are issued, all storm water requirements must be satisfied either on the plans or in the project conditions.

During FY 2006, **251 private priority projects** were reviewed by DSD for conformance with the *Storm Water Standards Manual* (**Comment No. 16, SWU:10-5015.02:hammp**).

7.3 EDUCATION AND OUTREACH

7.3.1 *Fact Sheets*

In FY 2006, the Storm Water Division and Land Development Review Division continued to distribute the fact sheet regarding the *Standard Urban Storm Water Mitigation Plan* to educate developers about storm water regulations associated with new development or redevelopment. This fact sheet was available on the *Think Blue* web site. Approximately 1,000 copies of the fact sheet were distributed by the Land Development Review Division in FY 2006.

Also in FY 2006, DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provided information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 500 brochures were distributed, and the video aired 36 times in FY 2006.

A large color poster promoting proper storm water pollution prevention practices at construction sites continued to be posted throughout the offices of DSD to familiarize staff and the visiting public with these practices. Approximately 1,000 posters were also provided to the construction industry to post on site.

7.3.2 *Websites*

In FY 2006, DSD rolled out its "Development Process: Step-by-Step" website, which guides applicants through the City's development process. The site references both the *Storm Water Applicability Checklist* as well as the *Storm Water Standards Manual*. DSD also continued to provide information on the Department's website regarding storm water issues. A new section of the web site focusing on grading was created, which included visual examples and a "Frequently Asked Questions" page. Additionally, the *Think Blue* web site provided links to resources that could provide additional information on land use planning and storm water regulations for new development and redevelopment.

7.3.3 *Training*

In FY 2006, the City Planning and Community Investment Department conducted three Community Orientation Workshops (April 29, May 31, and June 29) during which storm water-related informational brochures were distributed to more than 70 community members.

The department also conducted informal internal and external outreach focused mainly on the Department's activities related to storm water, such as the General Plan Update and other policies and programs.

In FY 2006, DSD continued to hold weekly staff meetings to discuss storm water requirements and implementation on private development projects. In addition to these meetings, Land Development Review Division had approximately 70 employees (or 15%) trained in activity-specific storm water principles during the year.

The Land Development Review Division acquired an experienced storm water engineer in FY 2006 who will continue to education staff and ensure that the in-house standards for the review of WQTRs are followed.

In FY 2006, DSD's Inspection Services Division provided individualized training to construction industry member on proper storm water pollution prevention and BMP techniques. There were approximately 20 participants.

In FY 2006, the Field Engineering Division continued to provide storm water activity-specific training to its resident engineers before the start of the dry and wet weather seasons. Storm water topics were discussed as needed at the monthly meeting of resident engineers. Approximately 150 staff (or about 100%) received training on activity-specific storm water principles; this number included support staff in addition those specifically with storm water inspection duties. Quarterly coordination meetings with the construction industry were also held with water quality as a standing topic.

7.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to implement the programs set forth in the Planning and Development Component of its Urban Runoff Management Plan. DSD and Field Engineering will continue to conduct informal staff training meetings and sessions and continue to hold bimonthly coordination meetings with the Storm Water Division. City Planning and Community Investment Department staff anticipates continuing to presenting storm water educational material during Community Orientation Workshops, which are introductory training sessions for the members of the City's 42 community planning groups.

8 CONSTRUCTION

The City continued to implement the Construction Component of its Urban Runoff Management Plan in FY 2006 to prevent and reduce pollutants in runoff from construction activities within the City. Highlights of the Construction Component include development of education and outreach materials, development and participation in various trainings and workshops to educate staff and the professional industry, implementation of a review program to ensure compliance with storm water requirements, inspection of construction sites, enforcement of storm water violations from construction activities, and most importantly continued oversight of the implementation of storm water requirements at construction sites through the City's construction inspection programs. These program elements are further described below.

8.1 PRIORITY SOURCES

Prioritized construction inventories are updated and provided to the Regional Board annually prior to October 1st. The construction list for FY 2006 was submitted to the Regional Board in October of 2005.

8.2 BMP REQUIREMENTS

Section 3.4, *Construction Contracts*, of the City's Urban Runoff Management Plan identifies the BMPs required for construction activities. These requirements are made enforceable through a series of regulations in the City's Municipal Code (Storm Water Management and Discharge Control Ordinance, §43.03, and Grading Regulations, §142.02), which are implemented through construction development regulations in the City's *Storm Water Standards Manual*.

In FY 2006, Storm Water Pollution Prevention Plans (SWPPPs) were required for all projects over one acre, and Water Pollution Control Plans (WPCPs) were required for all projects where a SWPPP was not required (under one acre in size), that had a potential to impact water quality during construction (To make this determination, all projects were required to complete a "Storm Water Requirements Applicability Checklist," included as Appendix A to the City's *Storm Water Standards Manual*). Where appropriate, additional site-specific construction storm water BMPs were required in SWPPPs, WPCPs and/or construction contracts.

8.3 BMP IMPLEMENTATION

The City conducts measures to ensure compliance with the required construction BMPs and storm water regulations. The City implements a review and approval process, conducts education and outreach efforts, performs inspections and investigations, and takes enforcement actions, where appropriate. These program components are further described below.

8.3.1 Construction and Grading Approval Process

8.3.1.1 Capital Improvement Projects

The Engineering and Capital Projects (ECP) Department is responsible for planning, design, and construction of a majority of the City's Capital Improvement Program (CIP) projects, and the remainder of CIP projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department. All project managers of CIP projects in these departments awarding construction contracts on or after December 10, 2002, have been required to incorporate the construction requirements set forth in the *Storm Water Standards*

Manual. These requirements must be incorporated into the project (specifications and plans) during the design and contract award phases to ensure that construction storm water issues are addressed. To assist project managers, storm water language was included in the Capital Improvements Project contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed “peer plan check” for a check on construction BMP measures. Revisions are made to the design when necessary and then if the CIP Project Manager chooses, routed to Storm Water Division staff for a more detailed and formal review. The drawings are simultaneously routed to the Field Engineering Division of the Engineering and Capital Projects Department for a constructability review and for evaluation of the adequacy and implementation of during-construction storm water protection plans. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings.

In addition, the Water Operations Division received their ISO 14001:2004 Environmental Management System (EMS) Certification in spring 2005. Receiving this certification demonstrates the Water Operations Division’s commitment to the environment. Specific examples of this commitment include: implementation of Best Management Practices (ways to prevent runoff into storm drains) during cleaning and construction; responsible material delivery and storage; habitat/water quality protection; solid waste recycling management; hazardous waste management; vehicle and equipment maintenance; individual training and supervision; work inspection and coordination with other City staff.

8.3.1.2 *Private Projects*

The Development Services Department (DSD) is responsible for managing construction and development project review services for private development in the City of San Diego. In addition, DSD is responsible for implementation of the *Storm Water Standards Manual* on private development projects.

During FY 2006, DSD review staff ensured private projects were conditioned to require the incorporation of all necessary construction BMPs prior to the issuance of any construction permits. In addition, projects seeking construction permits were required to incorporate all construction BMPs on the plans and in the appropriate construction storm water plan (Water Pollution Control Plans were required on projects that did not require a State Construction NPDES Permit, and Storm Water Pollution Prevention Plans were required on projects subject to the State Construction NPDES Permit).

DSD issued approximately 461 public improvement and grading permits during FY 2006. Each of these permits had plans, which were reviewed to ensure they complied with the construction requirements found in the *Storm Water Standards Manual*. As part of the review process, DSD enforces the requirement that each development in excess of one acre submit a SWPPP and provide the WDID number.

In addition, in FY 2006, the Construction Storm Water Management Section of Field Engineering Division continued to use SWAT (Storm Water Action Team). E-mails are sent to every RE when rain is forecasted to remind them to check the BMPs on their active sites. In addition, they continued to coordinate with the Inspection Services Division and Storm Water Pollution Prevention Division to address and enforce against activities with the potential to discharge pollutants that were not under our purview.

Education and Outreach

The City conducts important education and outreach efforts for construction activities. These efforts are an essential component to ensuring compliance and understanding of applicable storm water requirements. For detailed information on the City's education efforts, including construction-related education, see Section 12, *Education*. A summary of the construction-related education efforts are provided below.

8.3.1.3 *Informational Material*

- The Field Engineering Division sent wet weather and dry weather letters to every contractor with an active construction grading project summarizing storm water requirements. In addition, notices were also sent to all contractors informing them of the modifications to SWPPP requirements of the State General Construction Permit.
- DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provided information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 500 brochures were distributed, and the video aired 36 times in FY 2006.
- DSD provided approximately 1,000 posters to the construction industry. The posters promoted proper storm water pollution prevention practices at construction sites.
- The Construction Storm Water Management Section of Field Engineering Division distributed a storm water packet at all pre-construction meetings. These packets consisted of storm water-related information which must be discussed with contractors during pre-construction meetings.
- DSD continued to prepare a new construction BMP brochure. The brochure is expected to be distributed in FY 2007.

8.3.1.4 *Websites*

In FY 2006, the *Think Blue* web site continued to provide information about construction activities requirements for storm water compliance within the City. The web site made available fact sheets created for construction activities as well as the City's Urban Runoff Management Plan. The web site also provided links for resources that can assist with selecting and implementing BMPs for construction projects.

In FY 2006, DSD operated a web page devoted to construction industry professionals to provide them with online services and general information about the project review process and requirements.

8.3.1.5 *Outreach Events*

The Development Services Department provided individualized training to members of the construction industry during FY 2006. These trainings were to the industry regarding proper storm water pollution prevention and BMP techniques.

The Field Engineering Division of ECP continued to be an active participant in FY 2006 in educating the public at the following events: Construction Management Academy, Building Industry Association Storm Water Training Sessions, APWA Storm Water Training, minor contracts training, and outreach events to youth and college students. There were a total of 17

storm water-related outreach events conducted by Field Engineering during FY 2006. Approximately 890 storm water-related informational letters/notices were distributed during FY 2006.

8.3.1.6 *Internal Training and Workshops*

The following notable construction BMP-related training sessions and workshops were held for City staff in FY 2006:

- The operations work force from the Water Department received a storm water refresher training session during the 2006 Spring Training session. The two-hour presentation discussed the placement of temporary BMPs in field service situations, and provided updated information on common storm water protection practices. In addition, CIP staff attended most construction project meetings, promoting the importance of the SWPPP.
- The Water Department required supervisors and crews to attend section tailgate meetings to educate them on the implementation of BMP during cleaning and construction; responsible material delivery and storage; and solid waste recycling management.
- Water Department staff education and training were encouraged, including attendance at the Clean Water Summit Conference in July 2005 and at updated construction manager training in storm water BMPs. The Environmental and Permit Section gave monthly storm water compliance presentations to contractors and consultants hired to construct and monitor CIP projects, with a focus on correct application of BMPs.
- The Land Development Review Division and the Inspection Services Division of DSD conducted individualized storm water-related staff training throughout the reporting period.
- The Field Division of ECP held activity-specific training for REs in the form of pre- and post-rainy season training sessions. As-needed training for REs was also provided based on evaluations by the Regional Board, observations of Field Supervisors, and/or sites that are not complying with storm water management requirements. Additionally, storm water quality topics were discussed in the monthly RE meeting as questions arose throughout the reporting period. There were a total of 14 training events conducted by Field Division during FY 2006. Approximately 150 employees were trained, including support staff.
- The Development Services Department Field Inspection Division provided training to staff on storm water pollution prevention for construction sites.

8.4 **ENFORCEMENT AND COMPLIANCE**

The City takes measures to ensure that construction activities are conducted in compliance with storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

8.4.1 *Construction Site Inspections*

Construction sites are required to be inspected based on the frequency schedule set forth in the City's Urban Runoff Management Plan. REs in the Field Engineering Division inspect BMPs associated with grading permits (private projects) and many public projects. Those public projects that are not inspected by Field Engineering are inspected by engineers in the department carrying out the project. Building Inspectors in DSD's Inspection Services Division

inspect construction BMPs associated with projects performing construction under building permits.

The Field Engineering Division's Construction Storm Water Management Section, which consists of a staff of six led by a senior civil engineer, is responsible for acting as a support group for the Field Engineering Division on storm water-related issues, development of policies and procedures, and providing internal and external training on storm water requirements. In FY 2006, the Field Engineering Division was able to maintain the Construction Storm Water Management Section with six staff members. Their tasks included assisting with inspections of construction sites for BMP implementation, providing internal and external training, coordinating with other departments and agencies, and assisting in preventing discharges of construction related pollutants into the storm water conveyance system. They continued to patrol four different areas of the City to inspect active construction sites and to document any needed adjustments. The section also pursued enforcement action for sites that did not implement and/or maintain BMPs.

REs inspect and issue Storm Water Notices monthly in the dry season, and at least weekly in the rainy season for high priority projects. In accordance with the City's Urban Runoff Management Plan, medium and low priority projects are inspected twice during the rainy season and as needed during the dry season. The Field Engineering Division's water notice is in triplicate form: one copy is given to the contractor, one is filed with the project, and the last copy is filed in the general storm water files with the Construction Storm Water Management section. Notices are not issued for projects that do not have any potential to discharge and may be near completion (i.e., delays or closeouts). All projects were inspected based on the required frequency. If the Storm Water Notices prove to be ineffective, then Stop Work Orders are issued.

Storm water issues are initially discussed during the pre-construction meeting and construction activities are not to begin (emergency projects are exempt) prior to the contractor having a plan in place to prevent pollutants from leaving the construction site. The plan may come in the form of a SWPPP (for sites that disturb more than one acre of soil) or a WPCP.

Based on the construction inventory that was submitted in October 2005, there were approximately **180 high priority, 239 medium priority, and 680 low priority active construction (CIP and private) sites. All of these sites were inspected according to the frequencies identified in the *Storm Water Standards Manual*.** Depending on the status of any given project, the Field Engineering Division is required to perform more or less frequent construction inspections. A project's priority can change from day to day. For example, a project may be going through the closeout phase in which all construction activities have been completed. For the purposes of reporting, such a project would be considered a low priority site but would not have any storm water inspections occurring. Additionally, the priority of a construction site may change due to the activities being conducted onsite and the potential to generate pollutants that may impact water quality. Therefore, the numbers listed above are a representative approximation. As previously stated, all projects were inspected based on the required frequency.

8.4.1.1 *Capital Improvement Projects*

The construction projects discussed below were inspected by construction management consultants.

Water Department CIP Projects

The Water Department's CIP Program prioritized construction projects and conducted inspections according to the criteria set forth in the City's Urban Runoff Management Plan. A storm water checklist is completed during inspections to ensure compliance with regulatory requirements and evaluate whether the BMPs are adequate and properly implemented or whether additional control practices are needed. In FY 2006, **11 high and two medium priority sites were inspected**. There were no low priority construction sites identified.

Metropolitan Wastewater Department CIP Projects

In FY 2006, the Metropolitan Wastewater Department inspected approximately **600 low priority construction sites** within the Wastewater Collections Division and **two high priority sites** within the Engineering and Program Management Division.

8.4.1.2 Private Projects

The Inspection Services Division of DSD inspects building sites routinely for compliance with storm water requirements. Inspectors within the division are assigned a district and are responsible for monitoring projects in that area. Each inspector routinely monitors his/her district on a daily basis. Sites are also inspected at the request of another department or in response to complaints. The Inspection Services Division created and implemented a special correction notice that is issued when corrections pertaining to storm water pollution prevention are needed. This notice is just that: it serves to notify the contractor that improvements must be made immediately. For more egregious or repeat issues, inspectors have been trained to issue re-inspection notices, which effectively stops work on the site until the corrections are made and the site is re-inspected.

In FY 2006, 12,375 building permits were issued. All permits issued were either of medium or low priority. The Inspection Services Division conducted 19,525 inspections; however, this number includes only projects that closed out in FY 2006 and does not include projects that continued to be in progress into FY 2007. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. Staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department anticipates implementing these actions within the next 12 months (**Comment No. 17, SWU:10-5015.02:hammp**).

8.4.2 Hotline Complaint Investigations

The Storm Water Division manages the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction areas. A total of 1,902 contacts were logged by staff, and 1,531 investigations were carried out by Code Compliance Staff (remaining contacts were requests for information). Approximately 337 investigations were conducted at construction sites in FY 2006.

8.4.3 Enforcement Actions

Departments will generally coordinate with the contractor through the RE to correct any storm water issues or potential violations. If issues are not resolved and violations occur, stop work orders are generally issued, and work is halted until the site is brought into compliance with

storm water regulations. In FY 2006, stop work orders were issued by Field Engineering Division REs on four construction projects. They are listed in the following table.

Table 8-1. Stop Work Orders Issued by ECP Field Engineering Division.

Project Name	Date Issued	Date Lifted
Lorro Villas	03/22/06	Active to ensure continued compliance
La Jolla Commons/Judicial Drive	04/06/06	04/12/06 partial for LJC)
Judicial Drive	04/06/06	04/19/06
La Jolla Crossroads	04/25/06	04/26/06

For sites that have no activity occurring and issuance of a stop work order would not provide sufficient influence to the contractor to remedy deficiencies, the site is referred to the Storm Water Division for enforcement during rain events or discharges.

The Field Engineering Division also coordinates with the Inspection Services Division of DSD (responsible for inspecting combination permits, building permits, electrical, signs, mechanical and plumbing permits). For example, a site that may have a grading permit for which the grading has been completed but the contractor continues to work under a building permit, any storm water violations can be referred to the Inspection Services Division for further enforcement action.

The Inspection Services Division issued more than **314 warnings** and, of that amount, **24 were charged re-inspection fees** (which essentially stops work until the problem is fixed and approved during a re-inspection by the building inspector). An additional 23 projects were told to stop work except for storm water-related corrections work.

Refer to Appendix F for a table of Storm Water Division enforcement actions taken at construction sites in FY 2006.

8.4.4 Reporting of Non-Compliant Sites

Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there was no incident of this nature at a construction site (see Appendix B).

8.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will review its Construction Program in light of the re-issuance of the Municipal Permit and make modifications to it as necessary.

9 ENFORCEMENT

9.1 LEGAL AUTHORITY

The City's Municipal Code includes Storm Water Management and Discharge Control (§43.0301) and Storm Water Runoff and Drainage Regulations (§142.01 and §142.02), which both protect citizens and water quality by prohibiting pollutants from entering the storm water conveyance system. The Storm Water Division's Investigations and Enforcements Section enforces the City's storm water ordinance and implements the administrative civil penalties and citation process.

9.2 ENFORCEMENT ACTIONS

Non-compliance with storm water regulations can be detected by several means. Routine inspection of municipal, industrial, and commercial facilities is one method of detection. Others include code compliance officers on patrol, referrals from other agencies and City departments, and hotline calls. Enforcement actions consist of issuances of notices of violation (NOVs), citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's URMP. Table 9-1 identifies the number of enforcement actions taken during the reporting period and Table 9-2 details cases that were prosecuted by the City Attorney for prosecution.

Table 9-1. FY 2006 Enforcement Actions.

Enforcement Action Taken	Number Issued In FY 065
Notice of Violation	729
Citation	235
Civil Penalty	149
Prosecution	2

Table 9-2. FY 2006 City Attorney Prosecutions.

Case Closed	Case Type	Description	Result
11/20/2006	commercial	Property owner and Bulldog Concrete; concrete equipment washout into Chollas Creek; five counts under Fish & Game Code §5650 and one count under SDMC §43.0904	Charges against property owner dismissed; Bulldog Concrete pled guilty to two counts under Fish & Game §5650, three years probation, fine, 50 hours volunteer work
05/25/2006	agricultural; farming	Leslie Farms; petroleum spill in Los Peñasquitos Canyon referred to City Attorney's Office by Storm Water Division	Fish & Game case resulted in civil settlement of over \$50,000

9.3 FINDINGS

In FY 2006, the City's storm water Code Compliance Officers completed 1,531 investigations. Investigations are tracked by substance discharged; categories include: Construction Waste (i.e. cement-like material), Wash Water, Petroleum Hydrocarbons (i.e. transmission fluid, oil, gasoline), Sewage, Sediment, Effluent on ground (i.e. pool water, water, ground water), Latex Paint, Waste Water, and Other (i.e. grease, chemicals, trash, green waste, hazardous substance). Figure 9-1 displays the FY 2006 investigations by discharge type.

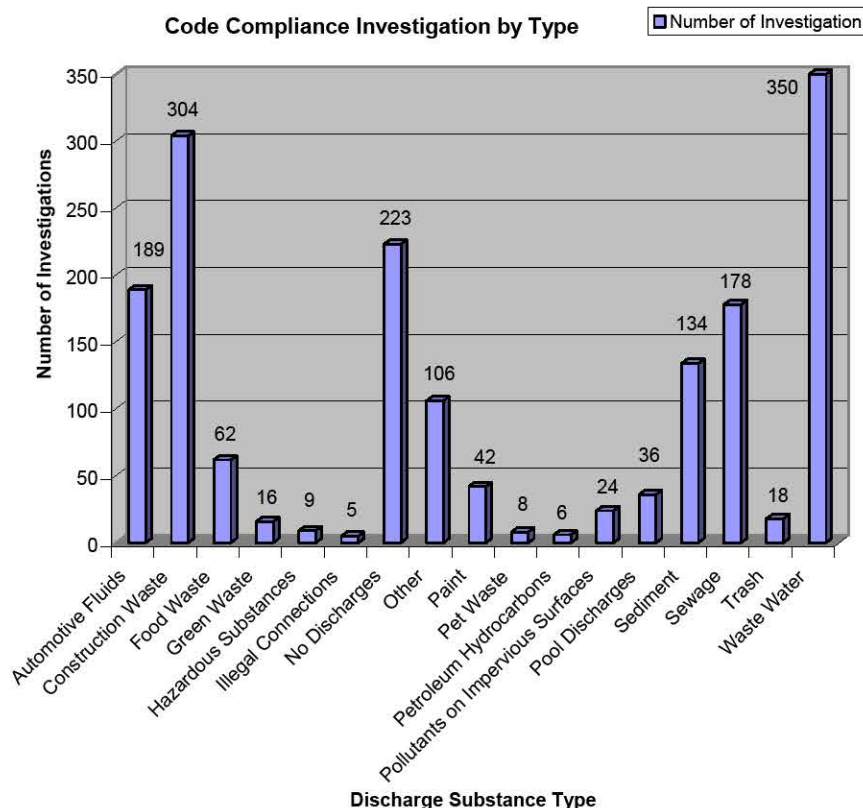


Figure 9-1. FY 2006 Investigations by Discharge Substance Type.

As a result of the City's investigations, 729 NOVs, 235 Administrative Citations, and 149 Civil Penalties were issued. During the reporting period, total penalties assessed were \$136,230.82 through Civil Penalties and \$23,600 through Administrative Citations, which averages to \$914.30 per Civil Penalty assessed and \$100.43 per Administrative Citation issued.

9.4 FUTURE ACTIVITIES

For future fiscal years, the Storm Water Division will continue to focus on refining and enhancing its investigation and enforcement activities in light of the re-issuance of the Municipal Permit.

10 MONITORING

The City continued to implement the Monitoring Programs as identified in Section 1.4, *Water Quality Monitoring*, of the City's Urban Runoff Management Plan. The Storm Water Division independently conducted, or participated with other agencies and organizations to conduct, numerous water quality monitoring studies in the San Diego region. A summary of the accomplishments in each of the monitoring programs (ongoing or completed) for FY 2006 is provided below. Findings and conclusions for the following programs (with the exception of the Toxic Hot Spots Monitoring in San Diego Bay) can be found in the *San Diego County Municipal Copermittees 2005–2006 Urban Runoff Monitoring Report*.

10.1 DRY WEATHER MONITORING

Section 11, Illicit Discharge Detection and Elimination, of this Annual Report discusses the progress and findings made regarding the City's Dry Weather Monitoring Program in FY 2006.

10.2 URBAN STREAM BIOASSESSMENT MONITORING

To assess the ecological health of watersheds, the Copermittees contracted with Weston Solutions, Inc., to collect and analyze benthic macroinvertebrate samples at numerous locations throughout each watershed in FY 2006. Some of the sampling locations were located near mass loading stations so that a triad data review could be conducted. A copy of the bioassessment monitoring data and interpretation can be found in the *San Diego County Municipal Copermittees 2005-2006 Urban Runoff Monitoring Report*. The report contains information from sampling events conducted at a minimum of 20 reaches and three reference stations during the months of October 2005 and May 2006.

10.3 LONG-TERM MASS LOADING MONITORING

To assess the chemical characteristics of storm water urban runoff and the ability of storm runoff to support life, the Copermittees contracted with Weston Solutions, Inc., to collect flow weighted composite water samples and conduct chemical and toxicological analysis on those samples at 10 locations in San Diego County. The mass loading stations were located near river mouths so that the water samples collected were most representative of the upstream watershed areas.

10.4 COASTAL STORM DRAIN OUTFALL MONITORING

The Coastal Storm Drain Monitoring Program is designed to identify illicit discharges into the storm water conveyance system, monitor the bacteria concentrations in receiving waters near storm drain outlets, and determine if urban runoff is negatively affecting recreational uses. The Storm Water Division coordinated through a regional monitoring work group attended by the County of San Diego Beach and Bay Monitoring staff, coastal Copermittees, and Weston Solutions, Inc. With the adoption of the Storm Water Permit, the City Storm Water Program began coastal monitoring in November 2001. Within November 2005 through October 2006, the City monitored 12 high priority drains along the coast and five high priority drains in Los Peñasquitos Lagoon on a monthly schedule from November to March and on a semimonthly schedule from April to October. The City confirms that 357 sites were visited during this reporting period.

During winter 2005 and into spring 2006, the monitoring staff performed a coastal inventory. There are greater than 90 known storm drain pipes that discharge to the San Diego City coastline (not including Mission Bay). The 12 priority storm drains monitored are drains that capture large drainage areas. The inventory is designed to:

- Identify each known outlet on the existing inventory; record information such as flow condition and accessibility points; and verify GPS coordinates and photographs.
- Identify and add new drains not present in the existing inventory adding information as listed above.
- Update resource binders, paper maps, GPS database, and GIS files.

A more detailed and comprehensive report on coastal storm drain outfall monitoring can also be found in the regional submittal from the principal Copermittee, which represents a collaborative effort among members of the coastal monitoring workgroup. The coastal Copermittees have coordinated a comprehensive review of all monitoring data collected to determine trends, establish descriptive statistics of monitoring results, and provide information for further program evaluation and improvement. At four Los Peñasquitos Lagoon stations, dual samples were unobtainable due to restrictions to entering sensitive habitats.

10.5 AMBIENT BAY, LAGOON, AND COASTAL RECEIVING WATER MONITORING

The Storm Water Division participated in many of the regional monitoring program planning, data review, budgeting, and future monitoring recommendation sessions throughout the year. The monitoring for Phase I and Phase II began in the 2002-2003 reporting period and included activity in San Diego Bay, Mission Bay, Oceanside Harbor, and the Pacific Coastline, coastal lagoons and estuaries. Phase I included contaminant targeting, three areas in each embayment with the finest grain size and highest TOC concentration where identified. Phase II encompassed a Phase I assessment of sediment using a “triad” approach that includes chemistry, toxicity, and biology of the sediments. Much of the Ambient Bay and Lagoon monitoring occurred in coordination with the Southern California Coastal Water Research Project (SCCWRP) Bight 2003 program as recommended by the Municipal Permit. The Bight 2003 monitoring coordinated, evaluated, and drew conclusions on monitoring programs performed by all the coastal counties from San Diego to Santa Barbara. The study assessed the overall health of the receiving waters and monitored the impact of urban runoff on ambient water quality. A detailed description of Phase II is discussed in the San Diego County Municipal Copermittees 2005–2006 Urban Runoff Monitoring Report.

10.6 TOXIC HOT SPOTS MONITORING IN SAN DIEGO BAY

The monitoring of San Diego Bay, formerly known as the California Bay Protection and Toxic Cleanup Program, was implemented for 10 years and identified five San Diego Bay locations that had sediment contamination causing toxicity to marine life and benthic community impairments. The California Bay Protection and Toxic Cleanup Program’s goals and tasks were realigned and incorporated into the Regional Board’s Pollutant Load Reduction Program. Currently, three of these areas of concern are being implemented under two TMDLs and a Cleanup and Abatement Order. For additional information on specific projects see Section 16, *Special Projects*.

11 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City has developed and implemented an aggressive program to detect and eliminate illicit discharges. The program consists of monitoring efforts, referrals and complaint investigations, MS4 and wastewater collection system inspection and maintenance, spill response and reporting, education efforts, enforcement actions, and hazardous waste collection. This program is detailed below.

11.1 DETECTION OF ILLICIT DISCHARGES AND CONNECTIONS

Detection of illicit discharges and connections is accomplished through a number of activities, including the Dry Weather Monitoring Program, MS4 inspection, Sanitary Sewer Canyon Program, hotline calls, and referrals from other sources. During the reporting period, staff conducted 177 investigations, as described below.

11.1.1 *Monitoring for Illicit Discharges*

The City's Dry Weather Monitoring Program (DWM) is designed specifically to detect and eliminate illicit connections and illegal discharges to the storm water conveyance system using frequent, geographically widespread dry weather discharge monitoring and follow-up investigations. All of the 306 DWM sites are located at storm drain outlets, manholes, or storm water catch basins. Information gathered from each monitoring site is recorded on a standard DWM Field Sheet. A total of 136 monitoring sites were visited prior to the start of the FY 2006 reporting period and are included in this report for consistency with past reports.

The City confirms the completion of required observations, field screening, and analytical monitoring of all 306 dry weather sites. A summary of monitoring activities is presented in Table 11-1.

Table 11-1. Summary of 2005 Dry Weather Monitoring.

Number	Monitoring Activity
308	Planned dry weather sites
2	Sites lost due to construction
306	Confirmed actual dry weather sites monitored
238	Sites with flowing or ponded water
68	Sites with no flowing or ponded water
113	Sites exceeding one or more action level
37	Sites not re-sampled due to Best Professional Judgment ⁽¹⁾
56	Sites re-sampled that were within acceptable limits
20	Total number of sites requiring extensive investigation
20	Total number of investigations conducted

(1) Best Professional Judgment: Monitoring staff take into account weather conditions, storm drain structure, sample collection technique, possibility of groundwater or tidal intrusion, soil composition, and other pertinent factors.

11.1.1.1 *Dry Weather Monitoring Investigation Results*

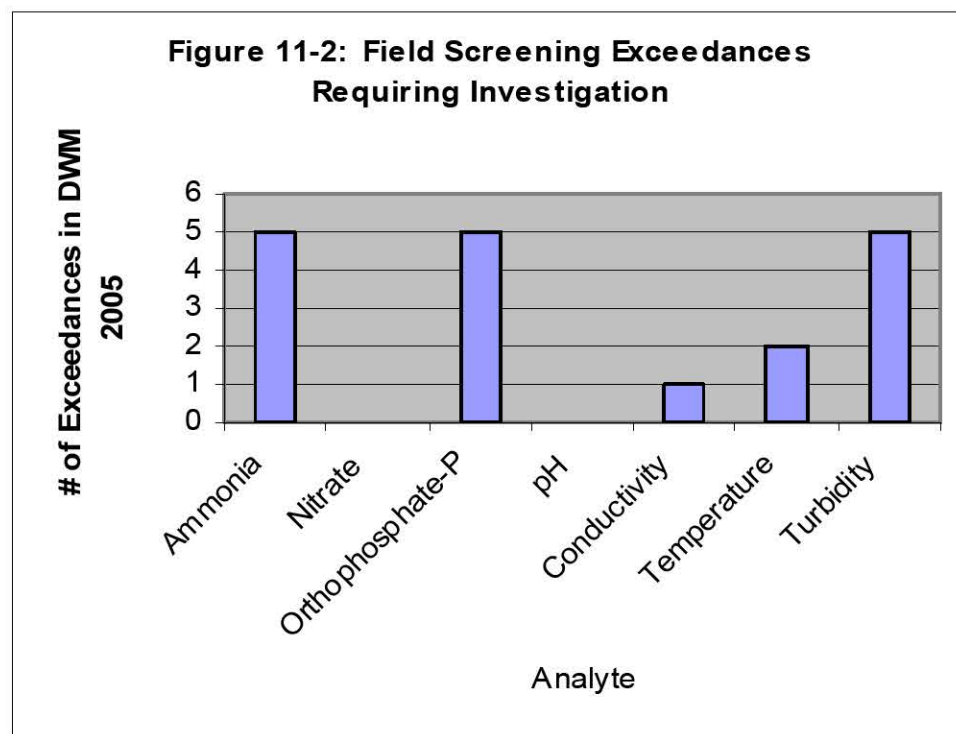
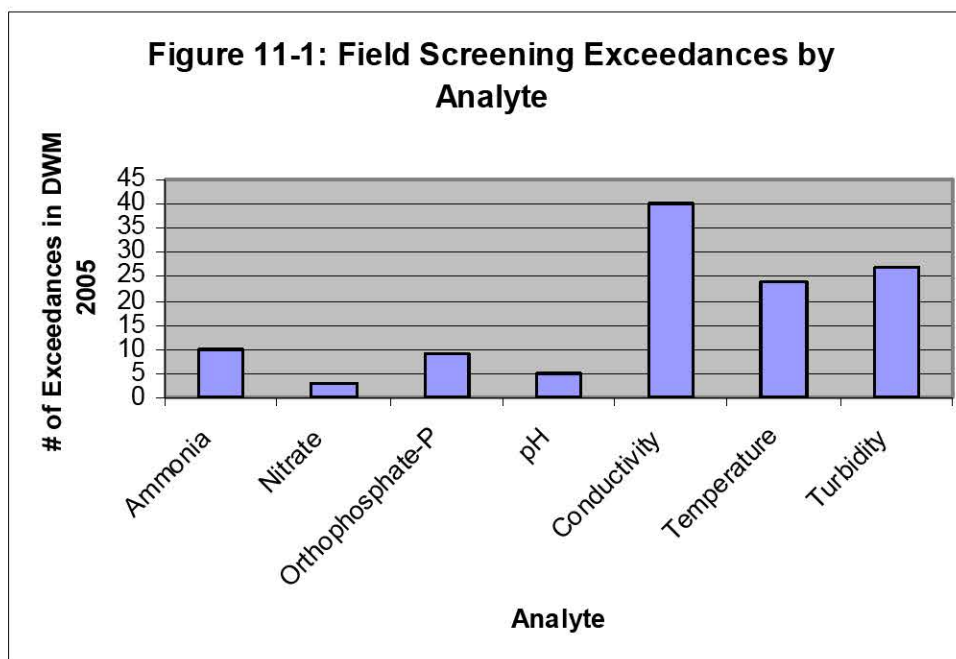
Table 11-2 presents a brief summary of investigation results. Data from the 2005 Dry Weather Monitoring season are located in Appendix E. A copy of each investigation report is available in the *City of San Diego Dry Weather Monitoring Program Illicit Connection/Illegal Discharge Follow-up Investigations 2005, Final Report*, submitted to the Regional Board on November 15,

2006, prepared by Weston Solutions, Inc., or in Appendix E if the investigation was conducted by City staff (**Comment No. 19, SWU:10-5015.02:hammp**).

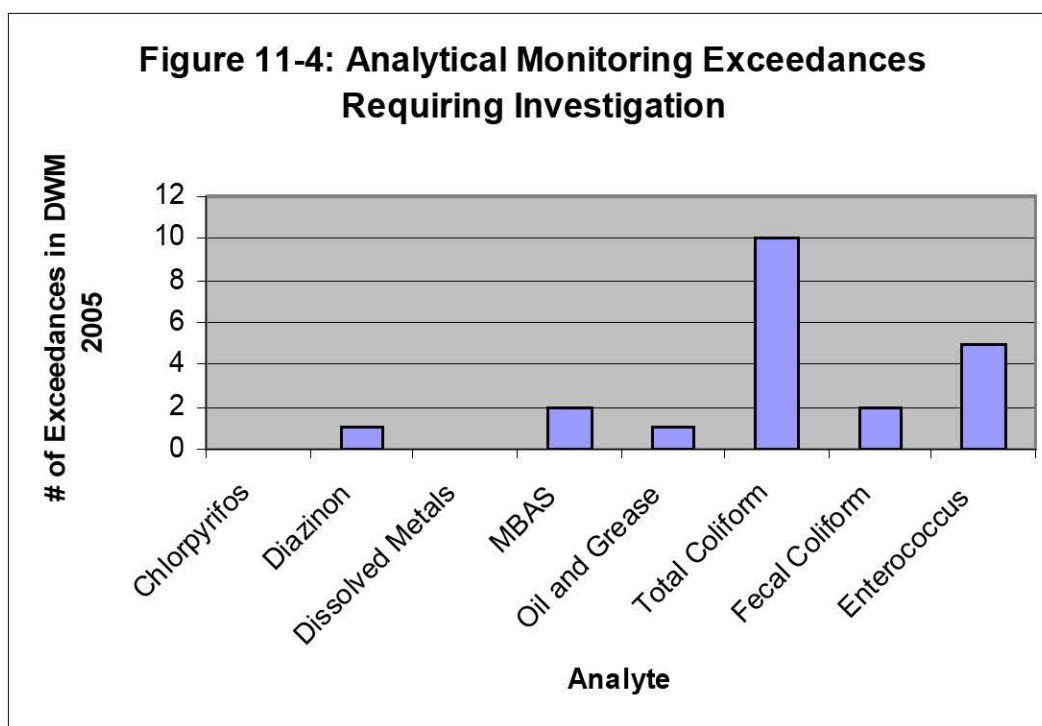
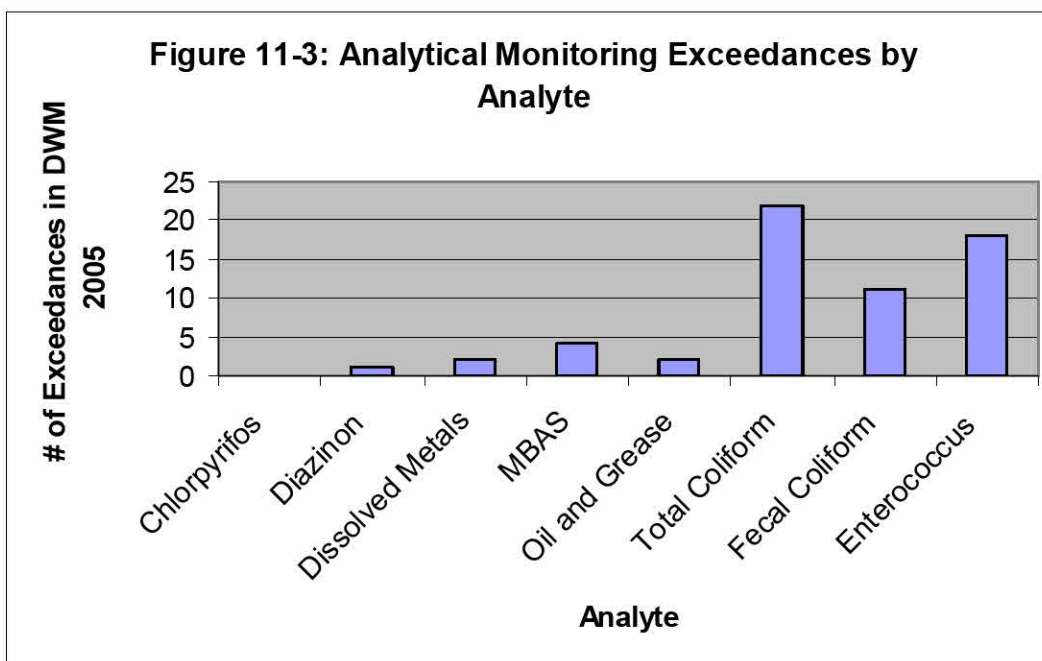
Table 11-2. Summary of Dry Weather Sites Requiring Follow-Up Investigations.

Site ID	Routine Sample Date	Resample Date	Source/Result	Action Taken
DW020	5/16/05	6/26/06	Irrigation Runoff	Education Materials Distributed
DW021	5/16/05	5/16/05	Possible Illicit Discharge	Education Materials Distributed
DW031	7/1/05	9/26/05	Illicit Discharge	NOV Issued
DW063	5/25/05	1/9/06	Possible Illicit Discharge combined with Irrigation Runoff	Education Materials Distributed
DW064	5/24/05	6/2/05, 1/9/06	Possible Illicit Discharge	Education Materials Distributed
DW065	7/26/05	11/6/06	Illicit Discharge	Administrative Citation Issued
DW067	7/12/05	7/28/06	Sediment in Storm Drain	Referred to Street Division
DW114	7/18/05	1/17/06	Irrigation Runoff	Education Materials Distributed
DW128	8/1/05	7/25/06	Standing Water	Referred to Street Division
DW153	7/26/05	5/11/06	Irrigation Runoff	Education Materials Distributed
DW168	5/3/05	5/10/06	Standing Water	Referred to Street Division
DW182	7/18/05	12/13/05	Irrigation Runoff	Education Materials Distributed
DW183	7/18/05	12/12/05	Irrigation Runoff	Education Materials Distributed
DW212	7/20/05	7/21/05	Illicit Discharge	NOV Issued
DW213	5/3/05	6/17/05	Illicit Discharge	Investigation incomplete; impacted by tidal intrusion and upstream construction dewatering.
DW215	6/23/05	6/23/05	Illicit Discharge	Administrative Citation Issued
DW233	6/30/05	11/9/05	Illicit Discharges	Codes & Education Materials Distributed
DW272	8/17/05	8/17/05	Illicit Discharge	NOV Issued
DW305	7/13/05	9/16/05	Not Identified	Manholes Welded
DW318	7/13/05	7/13/05	Broken irrigation line	Reported to Landscapers

The field screening analytes that most frequently exceeded action levels were conductivity, temperature, and turbidity. Many of these exceedances were eliminated by best professional judgment and re-sampling. Of the sites requiring investigation, ammonia, orthophosphate-P, and turbidity were the most common exceedances. See Figures 11-1 and 11-2 below.



The analytical constituents that most frequently exceeded action levels were Total Coliform, Fecal Coliform, and *Enterococcus*. Many of these exceedances were also eliminated by best professional judgment and re-sampling. Of the sites requiring investigation, Total Coliform and *Enterococcus* were the most common exceedances. See Figures 11-3 and 11-4 below.



1.1.1.2 Non-Dry Weather Monitoring Related Investigation Results

The prescriptive monitoring requirements and associated follow-up investigations are not the only source of investigations. Monitoring staff routinely walk canyons and newly developed communities looking for hidden or new drains, drains plumbed over hillsides, and illegal discharges. In addition, monitoring staff respond to citizen and city employee referrals where

complicated conditions exist and/or multiple sources make identifying a responsible party difficult. Once a responsible party is identified, the information is referred to a Code Compliance Officer for enforcement, including follow-up visits to ensure elimination of the discharge.

In FY 2006, the Monitoring Section investigated 101 discharges as a result of these referrals or observations, resulting in 61 Enforcement Actions. See Table 11-3 for a summary of non-routine illicit discharge investigations. Refer to Appendix E for field data sheets and investigation information (**Comment No. 20, SWU:10-5015.02:hammp**).

Table 11-3. Summary of Investigations Not Related to Dry Weather Monitoring.

Number	Action
27	No Evidence of Violation
31	Investigations resulting in Notice of Violation issued to discharger
18	Investigations resulting in Administrative Citation issued to discharger
12	Investigations resulting only in distribution of educational material
10	No responsible party identified for discharge
3	Cases referred to other departments

11.1.2 MS4 Inspection

The Street Division is responsible for the routine inspection and maintenance of the City's MS4 and surrounding areas. If illicit discharges are detected while performing inspections or other field activities, the Street Division is instructed to contact the Storm Water Division for investigation.

11.1.3 Sanitary Sewer Canyon Program

The urban canyons of San Diego pose a unique challenge to the Metropolitan Wastewater Department (MWWD). If a sewer spill occurs in a canyon, it could go undetected. With approximately 250 miles of sewer lines located in the City's canyons and other non-right of way areas, MWWD has taken aggressive measures through the implementation of the multifaceted Canyon Program to reduce the possibility of a canyon sewer spill and to increase the chances that such a spill will be detected and reported quickly.

The Program included the televising of over 1,338 miles of the oldest and most problematic sewer lines in the system between 2001 and 2004, as measures to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can reveal blockages from debris to roots to grease; show cracks, breaks or deterioration of a pipe. In FY 2006, **51.72 miles** of sewer line were televised.

Physical inspection of canyons is another way to prevent sewer spills in the region's urban canyons. After every significant rainfall, MWWD's Wastewater Collection Division crews hike through portions of "critical canyons" (i.e., canyons where a sewer spill could easily end up in a river, bay or the ocean) to inspect the sewer lines and manholes. MWWD has also partnered with the San Diego Police Department to utilize police helicopters to patrol canyon areas after significant rains. Similarly, the Department uses its Volunteer Canyon Watchers to report any indications of real or potential canyon sewer spills observed during recreational hikes through our urban canyons.

11.1.4 Hotline Calls/Referrals

The Storm Water Division operates the City's Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system detected within the City. The Storm Water Division uses several strategies to capture citizen attention and impart the importance of recognizing and reporting illicit discharges and connections through television and radio programming, the *Think Blue* website, and educational fliers, handouts, flying discs, pencils, dustpans, etc. In FY 2006, a total of 1,902 contacts were logged by staff, and 1,531 investigations were carried out by Code Compliance Officers (remaining contacts were requests for information).

The MWWDD operates and advertises a sewer spill hotline for the reporting of sewer spills 24 hours a day, seven days a week. MWWDD crews are also on call 24 hours a day, seven days a week to respond to the calls.

11.2 ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

Elimination of illicit discharges and connections is accomplished by implementing measures, such as education and outreach programs designed to maintain facilities and promptly respond to and capture spills and enforcement.

11.2.1 Education

The Storm Water Division educates residents and businesses through numerous education and outreach mechanisms. Educational materials, such as flyers, door hangers, and fact sheets, are distributed during events or by Code Compliance Officers while out in the field. The materials promote preventing illicit discharges through implementation of BMPs. The BMPs relate to the three C's (i.e., control, contain, and capture), which is one key component of the storm water pollution prevention message. The City also disseminates information on the *Think Blue* website, through Public Service Announcements, community events, and workshops.

11.2.2 Complaint/Referral Investigations

Storm Water Division staff also conducts investigations of potential polluted discharges based on hotline complaints and referrals from other sources, such as other departments, agencies, etc. During FY 2006, the **Storm Water Division's Monitoring Section initiated 101 IC/ID investigations** from other referrals.

11.2.3 Spill Prevention and Response

The City implements spill prevention measures to eliminate and reduce the occurrence of spills and ensure that spills that do occur can promptly be contained and properly cleaned up. More detailed information about BMPs implemented during the reporting period is located in each department's FY 2006 *Activity Reporting Form* provided in Appendix B.

In addition to conducting spill prevention measures for municipal activities, the City also implements an aggressive program to educate the public and provide citizens and businesses with information needed to prevent, address, and report spills.

11.2.3.1 Sanitary Sewer Overflow Prevention and Response

MWWDD continues to implement the measures of the Sewer Overflow Prevention Plan and the Sewer Overflow Response Plan, to prevent and contain spills, leaks, and overflows from

sanitary sewer pipes, and pump stations in the City. A copy of these plans can be obtained by calling the MWWDC Collections Division at (858) 292-6484. Figure 11-5 shows the number of sewage spills each calendar year, as reported by MWWDC. Spills identified as “Public Water” are defined as those that reach a receiving water.

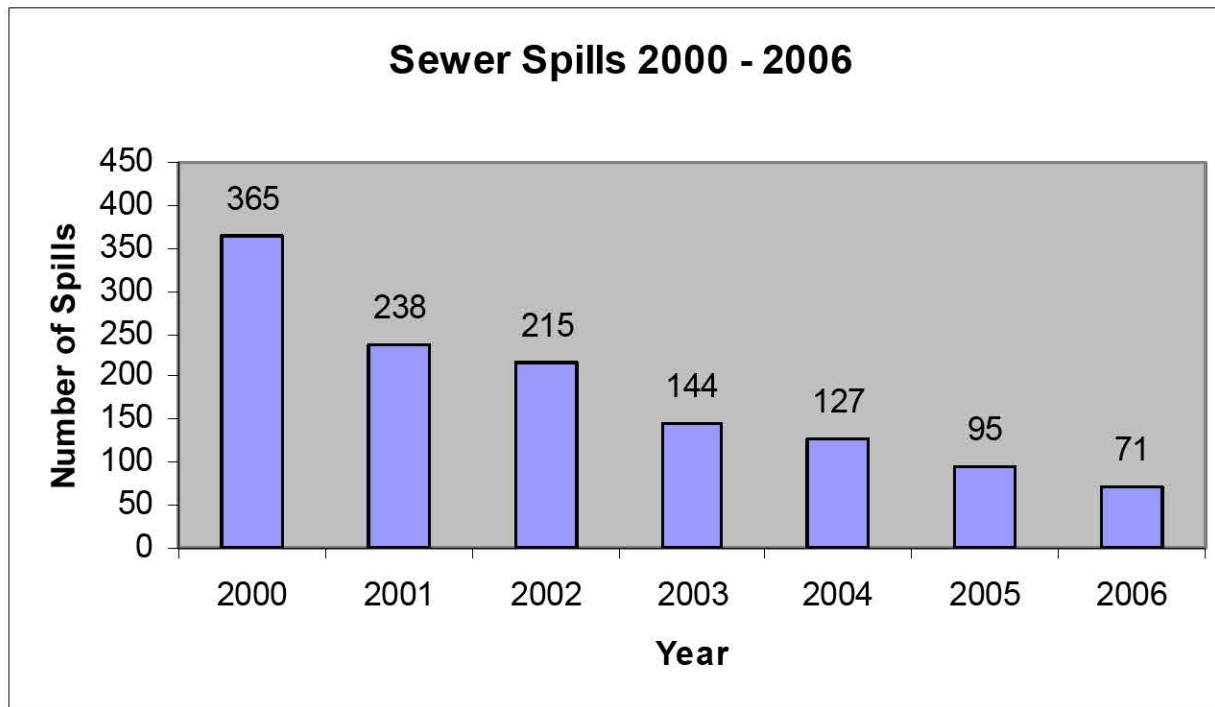


Figure 11-5. Sewer Spills by Year, 2000–2006.

The following actions are implemented to the maximum extent practicable to identify and resolve blockages and overflows and prevent seepage from the sanitary sewer to the City’s MS4:

- Note the condition of sanitary sewer structures during routine maintenance and inspection, and identify areas that need repair or maintenance.
- Document suggestions and requests for repair and report the information to the appropriate manager or supervisor.
- Prioritize repairs based on the nature and severity of the problem.
- Televiser sewer mains to determine their structural integrity and condition.
- Monitor the sewer infrastructure for capacity limitation.
- Patrol canyons where infrastructure exists that may be subject to damage after significant rain events.
- Implement a Capital Improvement Program that is prioritized based on need for a period of up to 10 years.
- Minimize the impact of sewage spills by using established procedures designed to protect water quality.
- Minimize the impact of sewer spills due to construction activities; all sewer contract documents include language requiring the contractor to submit a sewer spill prevention response plan.

- Utilize GPS notebooks to reduce error in logging information and requesting maintenance.
- Utilize new all surface access vehicles to maintain access to manholes while minimize habitat disturbance.

In addition to a number of the procedures listed above, other measures are taken to prevent seepage from the wastewater collection system to the City's MS4. Seepage can occur in areas where the infrastructure for the two systems is in close proximity. As part of this effort, field staff are trained to recognize suspected seepage from the sewer system to the MS4. MWWWD also ensures compliance with the Health Department's minimum requirement for the acceptable separation between the newly installed sewer pipelines and the MS4.

MWWWD response crews are on call 24 hours a day, seven days a week to respond to, clean up, and repair sewer leaks and spills. Once notified, crews are mobilized and dispatched to the site to capture and contain spills and prevent further discharge. Vactor trucks are generally used to collect the spill. Additional methods may be used, as necessary to properly clean the spill and any debris or litter that was mobilized as a result of the spill. Depending on the location of the spill, it may be diverted to the sewer system by the low flow diversion system if it has already reached the City's MS4.

11.2.3.2 *Grease Disposal Program*

MWWWD continues to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease and provides. This program is described in greater detail in Section 6.3.3, *Grease Disposal Program*.

11.2.3.3 *24-Hour Reporting of Spills*

In FY 2002, the City developed a 24-hour discharge reporting form, disseminating a copy of the form to applicable departments with instructions on what discharges should be reported to the Regional Board. In addition, MWWWD has developed and continues to use a standard sewer overflow form to promptly notify city departments and resource agencies about the date, time, magnitude, location, and receiving water (if applicable) of sewer discharges.

During the reporting period, MWWWD responded to and reported spills that either discharged to, or had the potential to discharge to, the City's MS4 or directly to receiving waters. Significant spills were reported to the Regional Board following the 24-hour criteria. Appendix G provides information regarding the 10 spills in FY 2006 that reached receiving waters or the City's MS4.

The Water Department reports all significant discharges to the Regional Board under the Hydrostatic Test and Potable Water Discharge Permit (R9-2002-0020) issued by the San Diego Regional Board in August of 2002. There were no other reports of significant spills during the reporting period.

11.2.4 **Enforcement**

The City implements education efforts as well as enforcement measures to eliminate illicit discharges and connections. Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for

prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance* in the City's URMP FY 2002 Annual Report.

11.3 FACILITATE DISPOSAL OF HAZARDOUS MATERIALS

11.3.1 Collection Facilities and Events

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection and remediation of hazardous substances including household hazardous waste from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. ESD also collected HHW from 88 certified collection centers within the City in FY 2006. Refer to Table 3-3 of Section 3.3.1.2, *Municipal Separate Storm Sewer System*, for amounts of HHW collected in FY 2006 and to ESD's FY 2006 *Annual Reporting Form* in Appendix B for details on the events and activities conducted to facilitate the disposal of HHW.

11.3.2 Education

ESD conducts educational outreach programs for City residents and staff and promotes prudent purchase, use, and disposal of household hazardous waste through media announcements and distribution of educational materials. These programs designed and implemented through the Environmental Protection Division are vital to the diversion of dangerous or contaminated substances from the City's land and waterways.

The Storm Water Division conducts extensive education and outreach to San Diego residents and businesses to communicate the importance of proper disposal of hazardous materials and reporting of illicit discharges. These education and outreach efforts consist of distribution of informative materials, creating and running public service announcements on television and radio, and posting information on the *Think Blue* and Storm Water Division websites.

11.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to work to enhance its Illicit Discharge Detection and Elimination Program and evaluate it in light of the re-issuance of the Municipal Permit.

12 EDUCATION

The City's storm water education campaign for both the external and internal audiences is managed by the Storm Water Division of the Metropolitan Wastewater Department. The *Think Blue* campaign is a multi-faceted effort that encompasses public outreach and storm water pollution prevention advocacy, media advertising, and employee training. Section 12.1.4 below discusses the Storm Water Division's *Think Blue* campaign. Individual departments also create specific materials for their staff or customer use in protecting San Diego's water quality. Information on each City department's or division's education, outreach, and training efforts can be found in the FY 2006 *Activity Reporting Forms* in Appendix B.

12.1 STORM WATER DIVISION TRAINING OF MUNICIPAL EMPLOYEES

Training was provided to municipal employees via two avenues: training developed and given by Storm Water Division staff either in general storm water training or activity-specific storm water training formats; and department-developed and -provided activity-specific storm water training described in Section 2, *Municipal*.

12.1.1 General Storm Water Training

During FY 2006, *Think Blue* staff attended the City's New Employee Orientation session and trained all new City employees in *Storm Water and You*, a general storm water pollution prevention awareness workshop in fall 2005. Departments performed general or activity-specific storm water training for appropriate staff, as needed. The Storm Water Division will continue to provide the general storm water training as New Employee Orientations are scheduled.

12.1.2 Activity-Specific Storm Water Training

In FY 2006, the Storm Water Division's *Think Blue* training staff did not conduct activity-specific training of targeted City staff. However, see Section 3, *Municipal*, for training that was conducted by individual departments, as well as the number of employees trained (**Comment No. 21, SWU:10-5015.02:hammp**).

12.1.3 Storm Water Division External Education and Outreach

The City is concerned with both inland and coastal urban runoff abatement and the impact of the former upon the latter. This viewpoint stems from the unique boundaries of the City, which gives it the distinction of being both an owner of numerous inland reservoirs and key water resources in the region and the largest coastal jurisdiction. It is this dual responsibility that uniquely positions the City to lead the regional urban runoff education efforts in a logical manner that ties the perspectives of inland and coastal area residents together.

To that end, in 1998, the City, with the assistance of the Unified Port of San Diego, Caltrans District 11, and the County of San Diego, funded *Think Blue*, a bilingual regional education, outreach, and media campaign. The goals of the campaign are to: raise awareness of urban runoff as a major cause of beach, bay, watershed, and recreational water pollution; and change the polluting behaviors of residents and businesses.

12.1.4 Think Blue Campaign — FY 2006

12.1.4.1 Goals and Challenges

The City's Storm Water Division goals for its FY 2006 public information campaign were the same as those with which the campaign started. These goals were as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change some behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan.

The conclusion of FY 2006 on June 30, 2006, was also that of the fifth year of the *Think Blue* Media, Education and Public Advocacy Campaign. Fiscal Year 2006 began in much the same manner as FY 2005 had concluded—with very limited resources to maintain the pre-FY 2004 level of activity. Thus, in FY 2006, the *Think Blue* campaign focused its limited resources on meeting the requirements of existing State Proposition 13 and PRISM grants and developing two new Public Service Announcements (PSAs).

12.1.4.2 2004 Annual Residential Survey

Each FY from 2001 to 2004, the campaign conducted an annual *Storm Water Pollution Program Follow-up Survey of City Residents*. This survey provided data on how well the campaign's efforts had penetrated the general public and quantified the campaign's performance in reaching its goals. Due to funding shortfalls, surveys were not conducted in FY 2006.

Campaign progress in prior years (2001 through 2004), however, is well documented in the *Storm Water Pollution Program 2004 Follow-up Survey of City Residents*, and it is reasonable to assume that most of that progress in public awareness of the causes of storm water pollution and corresponding behavior change by the public has been largely maintained.

Progress through August 2004: By the summer of 2004, two of the campaign's original goals had been substantially exceeded. Over the years since the campaign began, six behaviors have changed in a positive and statistically significant direction. Those behaviors are:

- Fewer vehicle owners are changing their own oil
- The use of curbside recycling rather than the trash for green waste continues to increase on an annual basis
- Use of the trash for lawn clippings has decreased
- Use of the trash for the disposal of leftover garden chemicals has decreased dramatically, while use of hazardous waste collection for this purpose has increased
- Use of inside sinks for washing out paint brushes, rollers, and pans has decreased
- Use of the trash for disposing of leftover paint has decreased

In addition, a number of other indicators are moving in a positive direction, although the changes are not yet great enough to achieve statistical significance. As of August 2004, the data suggested that additional efforts in the area of public education may be successful in furthering program objectives. The mere fact that behavioral change increased from two behaviors in Fiscal Year 2003 to six in Fiscal Year 2004 strongly supported this contention.

Insofar as the *Think Blue* slogan is concerned, the increase in awareness over time has been quite dramatic. Awareness of the slogan has steadily increased over time and extended to over

half of the City's population. In 2001, some 31.2% of the City population registered awareness of the slogan. The change/increase is also statistically significant (see Figure 12-1).

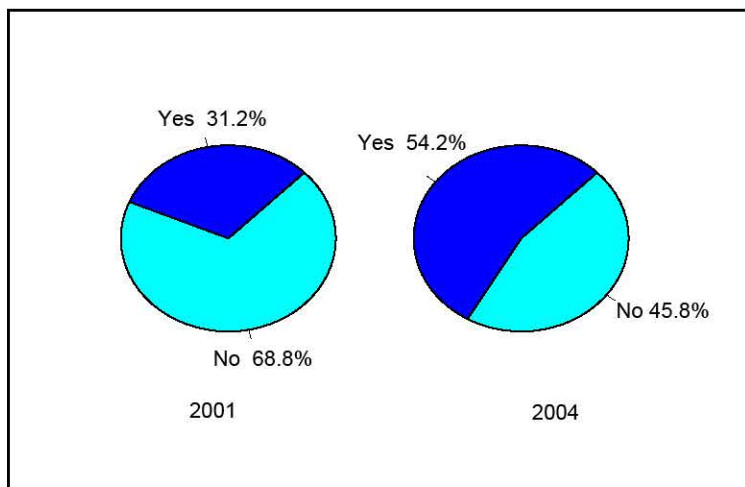


Figure 12-1. FY 2004 Awareness of the Slogan *Think Blue*.

Finally, in terms of the campaign's first objective, i.e., to increase awareness that storm water flows to water bodies untreated, the trend was not as positive. Awareness of this fact decreased in the years from 2001 to 2004, as has awareness of San Diego's storm drain system more generally. Through 2004, residents had been willing to change behaviors without fully understanding the "why"—that storm water flows untreated to the nearest water body. This indicated that an increased effort in outreach is needed to convey the "why" changing behavior is important to residents.

12.1.4.3 FY 2006 Media Purchase and PSA Airtime

In FY 2006, the campaign had limited resources available to air both the new and existing PSAs on television and radio. A summary of the Year Five media buy is provided below (see Table 12-1). The campaign aired from January 2006 through June 2006 on local broadcast stations reaching the English- and Spanish-speaking communities.

The City contracted for \$76,267 in paid television and radio advertising. However, because two new PSAs completed production late in the fiscal year, only \$24,300 of this total aired prior to June 30, 2006. The remaining \$51,967.50 aired after July 1, 2006, and will be included in the FY 2007 URMP Annual Report. Production was delayed due to contract approval delays, which delayed delivery of the PSAs to advertisers into late FY 2006.

The PSAs aired a total of 1,174 times in FY 2006 with 687 of the total PSA airings provided by media partners without charge. The total value of the in-kind contributions of the FY 2006 advertising partners is \$37,500, which is a 155% leveraged-dollar increase to the City's media and promotions budget. This figure was largely due to the non linear distribution of in-kind contributions over FY 2006 and FY 2007. Leveraged in-kind airings are provided when time is available in the advertiser's inventory, which is not equal through 12 months.

Table 12-1. Think Blue FY 2006 Media Buy Year-End Summary*.

STATION	FISCAL YEAR 2006 \$ Expenditure	# Paid PSAs	# Comp N/C PSAs	Value of In-Kind	Total Value	IPM PSA Airings (subset of total PSAs)
RADIO FM						
KPRI 102.1	11,790	162	30	3,750	15,540	18
KIFM-Jazz 98.1	1,900	13	5	750	2,650	0
FREE FM 103.7 KSCF	5,850	133	580	6,960	12,810	56
TELEVISION						
COX NETWORK	4,760	176	72	1,800	6,560	0
XEWT 12*	ALL AIRED AFTER JULY 1 ST 2006		TO BE COUNTED IN FY 2007 ANNUAL REPORT			
KUSI TV 9/51	ALL AIRED AFTER JULY 1 ST 2006		TO BE COUNTED IN FY 2007 ANNUAL REPORT			0
TOTALS	24,300	484	687	13,260	37,560	74

*Aired throughout entire County

The in-kind contributions of the City's media partners have been remarkably consistent since the inception of the campaign (see Table 12-2).

Table 12-2. Media Leveraging.

	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006*
\$ Purchased Air Time	\$253,616.60	\$226,462.00	\$270,219.75	\$79,900	\$24,300
\$ In-Kind Value	\$160,286.56	\$135,252.00	\$139,868.00	\$123,350	\$37,560
% Leveraged	63%	59.7 %	52%	154%	155%

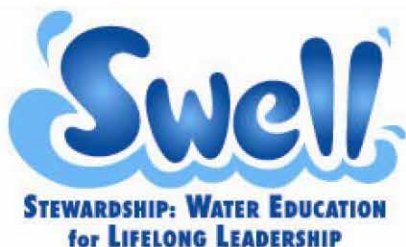
*This number reflects the non-linear distribution of in-kind contributions over FY 2006 and FY 2007. The services were encumbered in FY 2006, but the majority of the PSAs were aired after July 1, 2006. Accordingly, only the PSAs that aired prior to July 1, 2006, are accounted for in Tables 12-1 and 12-2 with the expenditures reflected in each fiscal year. However leveraged in-kind airings are provided when time is available, not equally through 12 months.

12.1.5 *Print Media*

In FY 2006, the City used print media to promote integrated pest management practices in the Chollas Creek area. Readers were able to clip an *Ants in Your Home?* advertisement from local newspapers and post it for future reference. See Table 12-4 for more details regarding the City's print media activities.

12.1.6 *School Age Education – San Diego City Schools*

Project SWELL — Stewardship: Water Education for Lifelong Leadership



The City's effort to educate San Diego's youth stayed on track in FY 2006 as Project SWELL was expanded to more school grades and a new school district.

Project SWELL teaches children about the importance of the region's recreational waterways and human-water interaction through a well-balanced, comprehensive, and hands-on water quality and pollution prevention curricula.

The intent of the Project SWELL curricula is to foster a sense of environmental stewardship among the region's children, the leaders and environmental caretakers of the future. To make this happen, the San Diego City School District, City of San Diego, and San Diego Coastkeeper have united to achieve a goal: enhance the existing science curriculum to address pressing environmental issues. The project partners have made progress in meeting these goals by developing and implementing a water quality and pollution prevention curricula for K-12 classrooms in San Diego City Schools. Below is a summary of the curricula that have been or are currently in development and implementation.

5th Grade: *Water*. Completed and in use. Project SWELL's first unit was issued to correspond with the fifth grade *Water* kit used by San Diego City Schools. The fifth grade unit now reaches 10,668 students. An assessment of the fifth grade curriculum was also conducted; however, the results are not yet available.

6th Grade: *Landforms*. Completed and in use. The sixth grade curriculum, *Landforms* kit, was completed and began circulating to 10,019 students in San Diego City Schools. Professional development is planned for sixth grade educators through the first half of FY 2007.

4th Grade: *Ecosystems*. Curriculum finalized. The fourth grade *Ecosystems* kit will roll out in the first half of FY 2007 to reach 10,661 students with professional development occurring by April 2007.

2nd Grade: *Pebbles, Sand, and Silt*. Curriculum under development. In the second half of FY 2007, the second grade curriculum, *Pebbles, Sand, and Silt*, will roll out to 10,222 students with professional development occurring in the last quarter of FY 2007.

Project SWELL will ultimately reach approximately 140,000 students in San Diego by FY 2010.

12.1.7 Website

In addition to the media campaign, the Storm Water Educational web site (<http://www.ThinkBlueSD.org>) is available to the public and professional organizations as a compliance and education resource. In FY 2006, the City completed the process of moving the site from an external, private web management company and server to a City-managed site and web server. The transfer of the site disrupted the City's tracking of web visitors. The City has data to report for only the last month of FY 2006, which was around 6,000 hits.

Because the site was still available on the outside provider host site until mid June 2006, it is reasonable to assume that the site continued to attract the same volume of visitors as in years past.

The number of web site visits in Fiscal Year 2006 is estimated to have been 400,000.

For reference, in FY 2004, the *Think Blue* website received more than 410,000 visits, averaging more than 34,231 hits a month. The month of October 2003 recorded the highest volume of visits with some 50,047 hits, and January 2004 recorded the lowest number of hits in a month's time with 16,392. The site includes all of the campaign's informational fact sheets, brochures, the City's Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, a calendar of upcoming storm water events and outreach activities, the PSAs, and other educational videos. A large portion of the site is available to browsers in both the English and Spanish languages.

12.1.8 Hotline and Other Contacts

As a result of the decreased broadcast media campaign, in FY 2006, the City's Storm Water Hotline, (619) 235-1000, and other means of communication realized a decrease in contacts (see Table 12-3). The declining contact volume coincides with two consecutive years of decreased advertising for *Think Blue*.

Table 12-3. Storm Water Division Contacts*.

Fiscal Year	Number of Contacts
2002	2,904
2003	4,206
2004	4,397
2005	3,818
2006	1,902

*This table was presented in previous Annual Reports as only counting contacts made through the Storm Water Hotline.

12.1.9 Speaker's Bureau and Community Events

Table 12-4 below summarizes the outreach and education events that the City implemented and/or participated in FY 2006 to educate the general public on storm water pollution prevention and promote the *Think Blue* slogan (**Comment No. 22, SWU:10-5015.02:hammp**).

Table 12-4. General Public Outreach and Education Events.

DATE	Jurisdiction	Event Type	Event Title	Comments	Audience Type	Specific Audience	Estimated Audience #	Site Name/ Location
02/27/06	City of San Diego	Jurisdiction on Storm water-specific Event	Coalition of Neighborhood Councils	Chollas Creek Restoration Project update	General public	Chollas Creek Watershed residents and business owners	40	Jacob's Foundation
02/03/06	City of San Diego	PSAs	Pixar/Disney on Ice "Submerge Yourself in Water Safety"	Storm water pollution prevention issues	General public	Grade school children	200	iPayOne Center
03/16/06	City of San Diego	Jurisdiction on-Hosted Events	Take Your Daughter and Son to Work Day Career Expo	Education for children on watershed concept	General public	Grade school children	300	San Diego Civic Concourse
09/17/05	City of San Diego	Cleanup Event	Chollas Creek Cleanup	Organized collaboratively between City and ILACSD	General public	Chollas Creek Watershed residents	5 volunteers	47 th and Castana Streets
04/29/06	San Diego Bay Copermitees	Cleanup Event	ILACSD 4 th Annual Creek to Bay Cleanup	WURMP Workgroup sponsorship	General public	General public	800+ volunteers in SD Bay Watershed	15 sites within watershed
08/26/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>Star News</i> advertisement	General public	Chollas Creek Watershed residents	32,000 circulation	Chollas Creek Watershed
09/01/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>East County Californian</i> advertisement	General public	Chollas Creek Watershed residents	36,500 circulation	Chollas Creek Watershed
08/25/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>San Diego Voice and Viewpoint</i> advertisement	General public	Chollas Creek Watershed African-American residents	25,000 circulation	Chollas Creek Watershed
09/02/05	City of San Diego	San Diego Regional IPM Program	Print media	<i>La Prensa San Diego</i> advertisement	General public	Chollas Creek Watershed Hispanic residents	30,000 circulation	Chollas Creek Watershed
04/26/06	City of San Diego	San Diego Regional IPM Program	Jurisdiction stormwater-specific event	Cherokee Point Neighborhood Association meeting	General public	Chollas Creek Watershed residents	5	Cherokee Point Elementary School
05/02/06	City of San Diego	San Diego Regional IPM Program	Festival participation	10 th Annual Barrio Logan Grand Prix Health Fair	General public	Chollas Creek Watershed residents	400	Logan Heights Family Center
04/08/06	City of San Diego	San Diego Regional IPM Program	Community-hosted event	Marine Corps Recruit Depot Bay Cleanup	General public	Chollas Creek Watershed military personnel	200	Marine Corps Recruit Depot Boathouse
05/22/06	City of San Diego	San Diego Regional IPM Program	Community-hosted event	20 th Annual Bay Bridge Run/Walk 2006	General public	Runners/ walkers	5000	Tidelands Park, Coronado

DATE	Jurisdiction	Event Type	Event Title	Comments	Audience Type	Specific Audience	Estimated Audience #	Site Name/ Location
02/15/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	The Housing Momentum Team	General public	Chollas Creek Watershed residents	10	4440 Wightman Street
03/14/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	Mid-City CAN Networking Council	General public	Chollas Creek Watershed residents	40	4440 Wightman Street
03/14/06	City of San Diego	San Diego Regional IPM	Jurisdiction stormwater-specific event	The Fox Canyon Neighborhood Association	General public	Chollas Creek Watershed residents	22	4380 Landis Street
04/14/06	City of San Diego	San Diego Regional IPM	Community-hosted event	Project New Village Earth Day Fair	General public	Chollas Creek Watershed residents	40	583 ½ Logan Avenue
09/22/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	41	Active Construction Site
09/26/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	53	Active Construction Site
10/11/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	72	Active Construction Site
04/18/05	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	47	Active Construction Site
05/16/06	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	52	Active Construction Site
05/23/06	City of San Diego	BMP Training	BIA of San Diego	Think Blue Sponsored BMP Workshop	Construction	Industry Workers, and managers	65	Active Construction Site

12.1.10 Think Blue Collateral Material Development and Distribution

Table 12-5 below identifies the campaign's collateral materials available and distributed in FY 2006 by target audiences (**Comment No. 22, SWU:10-5015.02:hammp**). The italicized entries were new items for FY 2006.

Table 12-5. Think Blue Collateral Materials by Target Audience.

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2006
Brochures/Training							
<i>Business License Storm Water Compliance Mailer</i>			X				45,000
<i>Post-Fire Best Management Practices (BMPs) for Runoff, Erosion and Sediment Control</i>	X	X	X		X		0
Recommended Do's and Don't's for Post-Fire Mitigation	X	X	X		X		0
IPM Pest Tip Cards		X	X				TBD
Water Bill Flyer (May '06)		X	X	X			275,000
<i>SWELL: Investigation 4th Grade Curricula-Teaching Binders</i>						X	10,661
<i>SWELL: Investigation 5th Grade Curriculum Teaching Binders</i>						X	Existing
<i>SWELL: Investigation 6th Grade Curriculum Teaching Binders</i>						X	10,019
Pressure Wash Operators and Impervious Surface Cleaning	X	X	X	X	X		128
Construction BMP Poster	X	X			X		228
Special Events Storm Water BMPs	X	X	X			X	75
Door Hanger- Help! Pollutants were found in your neighborhood storm drain.	X	X	X	X			234
Clean Water Leader Card-	X	X	X	X	X	X	1,076
Municipal Code	X	X	X	X	X	X	800
Clean Water Leader Recognition Slip	X						75
Storm Water Warrior Recognition Slip		X	X	X	X	X	102
Storm Water and You Training Video	X	X	X	X		X	3
Storm Water and You Training Workbook	X						3
Think Blue: Easy Solutions...	X	X	X	X	X	X	2,452
Wally & Rufus Coloring Book						X	0
Trio- Storm Water Activity Sheets						X	795
Fact Sheets							
<i>Useful Tips For Cleaning-up Ash</i>	X	X	X	X	X		0
Automotive Fluids	X	X	X	X	X		1,050

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2006
Car Washing	X	X	X	X	X		500
Concrete Washout	X	X	X	X	X		310
Construction Area Practices	X	X	X	X	X		250
Dumpsters & Loading Dock Areas	X	X	X	X	X		1,008
Industrial Facilities				X			0
Industrial Regulations				X			0
<i>Landscape & Irrigation Links</i>		X			X		15
Impervious Surfaces	X	X	X	X	X		630
Restaurants'			X				975
Sewer Overflows	X	X	X	X	X		250
Spills	X	X	X	X	X		250
SUSMP	X	X	X	X	X		250
Swimming Pools	X	X	X				375
Water Discharges	X	X	X	X	X		250
BMP Websites	X		X	X	X		200
Other Materials							
Storm Drain Stencil	X	X	X	X	X	X	24 Referrals to ILACSD
Incentive Items (used existing stock from FY 2002 for distribution)							
Dust Pans	X	X	X	X	X	X	471
Flyers	X	X				X	0
Key Chains	X	X	X	X	X	X	1,056
Pencils	X	X	X	X	X	X	2,758
Think Blue Stickers	X	X	X	X	X	X	4,097
TOTAL DISTRIBUTED							316,346
Water Bill Text Message Notice (June 2006)		X	X	X			275,000

The cumulative total of printed materials and water bill text messages distributed in FY 2006 to target audiences in the City was **591,346**.

12.2 GENERAL EDUCATION INFO FROM OTHER CITY DEPARTMENTS

In addition to the education and outreach activities spearheaded by the Storm Water Division, other departments and divisions in the City also conducted their own activities in FY 2006. Highlights of these efforts are presented below. For more information regarding the education and outreach activities done by City departments and divisions, refer to the *Activity Reporting Forms* in Appendix B and to Section 13, *Public Participation*.

12.2.1 Water Department

Elevator Posters: This poster highlighted quality water and community fun at the City's drinking water reservoirs and recreational areas. In addition, the *Think Blue* logo was featured in this poster. Four posters were on display.

Lakes Brochure and Insert: This brochure featured operation, location, and recreation information for each of the City's nine water supply reservoirs located throughout San Diego County. Additionally, this brochure reminded patrons about their responsibility to protect water quality by disposing their trash in appropriate bins. The insert included more ways to protect water quality and had information about the Multiple Species Conservation Program. Both materials featured the *Think Blue* logo. Brochures were available at all City reservoirs and on the Water Department website. Approximately two thousand of the brochure and insert were distributed.

CityScape: Watershed Source Water Protection Segment: This video segment educates and introduces the importance of protecting our water resources and watersheds. Protecting our watersheds is important to the whole community of San Diego for many reasons: it replenishes our drinking water supply, provides recreation destinations such as the reservoirs, and helps maintain the landscapes that make our city beautiful. In addition, it also will include information about how the City protects our watersheds and reservoirs and what individual viewers can do to help protect the quality of our water. Production of the video occurred in FY 2006.

Watershed Source Water Protection Display Board: This board provided information about the City's water system of nine water supply reservoirs throughout San Diego County. It contained photos and information reflecting the importance of watersheds and reservoirs and why their protection is vital to providing healthy and safe drinking water to our communities. This board was displayed at various community events, one of which included the 2005 Clean Water Summit. The annual summit provided a focal point for stakeholder participation and provided an important opportunity to validate and fine tune the priorities and directions of Project Clean Water working bodies.

2005 Annual Drinking Water Quality Report: This report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report. Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds, and features a list of community resources that one can access to learn more about participating in local water quality protection efforts.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received over 50 requests for the Spanish report. The report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the report. The department received many complimentary phone calls and e-mail messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers and other key community locations.

12.2.2 Qualcomm Stadium

In FY 2006, stadium representatives and a City storm drain liaison met with parking lot vendors and clients on site and discussed storm drain issues and proper storm drain management and protection methods. All parking lot contracts and agreements issued to clients and vendors included enforceable verbiage on proper storm drain protection.

12.2.3 *Park and Recreation Department*

In FY 2006, over 30 free educational programs were conducted by Park and Recreation Department staff and volunteers. These education programs included storm water awareness. Over 100,000 brochures were printed or reprinted for storm water education, and approximately 20 signs, kiosks, or displays were created or updated involving storm water awareness. The park use permits issued to the public by the department (approximately 3,800 annually) included education and language on storm water pollution prevention.

12.2.4 *Development Services Department*

In FY 2006, large color posters promoting proper storm water pollution prevention practices at construction sites were posted throughout the Development Services Department offices to familiarize the public with these practices. Approximately 1,000 posters were provided to the construction industry To post on site. All of the pertinent storm water information was included in the department's website. A new section of the website on grading was created and included visual examples of BMPs and a frequently-asked-questions section.

12.3 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will continue to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change. Specific areas for improvement include:

- Reestablishing annual residential behavior data gathering and assessment activities;
- Reestablishing a mass media campaign;
- Focusing all jurisdictional education and outreach activities around the pollutants of concern identified for each watershed within the City's jurisdiction;
- Implementing an outreach and education methodology that uses a social psychology approach that will maximize the City's efforts to achieve sustainable behavioral changes in all target audiences as identified in the Municipal Permit and to perform Level 3 assessment;
- Strengthening the municipal training program; and
- Working collaboratively with other jurisdictions to address mobile businesses as a high priority pollution source.

13 PUBLIC PARTICIPATION

13.1 PUBLIC PARTICIPATION

The following is a summary of activities that various City departments conducted that facilitated public participation on water quality issues in FY 2006.

13.1.1 *Airports: Brown and Montgomery*

In FY 2006, the Airports Advisory Committee held meetings, which involved staff from both Brown Field and Montgomery Field as well as representatives of airport users, tenants, and community planning groups directly affected by the two airports. The forum provided opportunities for public input on airport issues, including storm water. The Airports Advisory Committee met once a month for a total of 12 meetings in FY 2006.

13.1.2 *Development Services Department (DSD)*

In FY 2006, the public was provided a myriad of opportunities (approximately 350/year) to participate in water quality issues via environmental document reviews, City Council hearings, Planning Commission hearings, and Hearing Officer meetings during the project review process. In addition, DSD provided individualized training to staff on storm water pollution prevention for construction sites.

13.1.3 *Engineering & Capital Projects – Field Engineering Division*

The following public participation opportunities (and the number of opportunities) were open to the industry and/or general public in FY 2006:

- Construction Management Academy (open to industry attendance) (3)
- Building Industry Association Storm Water Training Sessions (City-cosponsored) (6)
- APWA Storm Water Training Session (1)
- Minor Contracts Outreach (1)
- Youth and College Student Outreach (3)
- Contractor-Specific Training (1)
- Meetings with the Construction Industry (several throughout the year)

13.1.4 *Metropolitan Wastewater Department*

Metropolitan Wastewater Department (MWWD), through the Storm Water Division, participated in numerous outreach activities to involve the public in storm water-related issues and provided the opportunity for comment and involvement. Two public workshops were held to involve the public in the restoration of Chollas Creek. Finally, staff from MWWD and numerous other City departments, including the Storm Water Division, participated in bi-monthly meetings with various stakeholders for the Open Space Canyons Advisory Committee (OSCAC); five OSCAC meetings were held. In total, MWWD held or participated in approximately seven meetings with the public.

13.1.5 Planning Department

The City Planning and Community Investment Department (Planning Department) provided staff at many public meetings, workshops, and hearings where water quality issues were discussed. Major public outreach activities in FY 2006 included:

13.1.5.1 General Plan Update

The Planning Department has built up an e-mail database with over 1,200 contacts of individuals and organizations interested in the General Plan Update. Over 350 of these contacts have elected to receive updates on Conservation Element issues and events.

The new General Plan is intended to proactively address the challenges of growth and development through seeking solutions to infrastructure challenges, establishing better linkages between transit and land use planning, preserving important open spaces, strengthening the City's existing communities, and creating new neighborhood centers. The July 2005 version of the Draft General Plan represented the results of five years of public input and staff work to prepare the Strategic Framework Element of the Draft General Plan and then to update the balance of the 1979 General Plan. Because of active participation from the Storm Water Division, the Draft General Plan incorporated significant language regarding storm water and urban runoff pollution prevention in the following elements: Conservation; Mobility; Urban Design; Public Facilities, Services, and Safety; and Recreation. A revised Draft General Plan was posted on the Planning Department's website on May 2006. A public review version was released in October 2006 with an anticipated March 2007 City Council hearing date.

The complete draft General Plan is available online at <http://www.sandiego.gov/cityofvillages>.

13.1.5.2 Community Planning Activities

- Mission Valley Community Plan Update/San Diego River Master Plan. Planning staff regularly attended San Diego River Coalition, San Diego River Conservancy, and Mission Valley Planning Committee meetings where water quality/river issues were discussed. In FY 2006, a total of eight San Diego River Coalition meetings were attended.
- Ocean Beach Community Plan Update. In FY 2006, approximately 10 Ocean Beach Community Planning Group meetings were held to develop, draft and discuss issues. A significant amount of time was spent at each meeting on water quality, San Diego River, urban runoff, and beach cleanup issues.
- Chollas Creek Enhancement Plan. In FY 2006, public meetings included three community workshops, quarterly briefings with the Southeastern and Encanto planning committees, and regular updates to the Mayor's Wetlands Advisory Board and other environmental organizations.
- Central Police Garage Project. This project falls within the purview of the Chollas Creek Enhancement Plan. In FY 2006, two planning group, two Planning Commission, and two City Council hearing meetings were held.
- Auburn Park Apartments Project. In FY 2006, one local planning group, one Planning Commission, and one City Council meetings were held.
- Fox Canyon Neighborhood Park Project. In FY 2006, one local planning group, one Hearing Officer, one Planning Commission, and one City Council meetings were held.

- San Pasqual Vision Plan. This vision plan was discussed at the San Pasqual and Rancho Bernardo Planning Group meetings and then presented to the City Council's Land Use and Housing Committee in May 2006.

13.1.5.3 *Watershed Management Plans*

Public meetings and outreach opportunities held in FY 2006 included meetings held for the San Dieguito River Management Plan (see Item H of "Program Assessment" of the Planning Department's FY 2006 *Activity Reporting Form*).

13.1.6 *Police Department*

In FY 2006, the Police Department continued working with other City departments and community groups on the construction of the Northwestern Area Station where community input would be incorporated into the design. The department also worked with the community to gain input on its canine and shooting range projects. Two community meetings were held to discuss these projects in FY 2006.

13.1.7 *Water Department*

The 2005 Annual Drinking Water Quality Report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report. Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds, and features a list of community resources that one can access to learn more about participating in local water quality protection efforts.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received over 50 requests for the Spanish report. The report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the report. The department received many complimentary phone calls and e-mail messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers and other key community locations.

Staff from various sections of the Water Department attended numerous events such as: Council District meetings, community planning group meetings, community fairs and festivals, town council meetings, and construction meetings. Members of the public were given the opportunity to provide feedback to the department regarding its water quality activities via meetings and also via the department's website. In addition, CIP and the Water Conservation Program had the following educational/informational materials and brochures:

Water Conservation Calendar was distributed to 10,000 residents Citywide. Created by using student posters, the calendar also included water conservation tips and storm water messages. The *Think Blue* logo was featured in the calendar. Calendars were distributed at various locations, such as: Recycled Water Overview Class for Water and Wastewater Employees, Lake Miramar Public Improvement Ceremony, Recycled Water Overview Class for Water and Wastewater Employees, Media Event to launch 6th Grade Curriculum for Project SWELL,

"Behind-the-Scenes" Tour of the North City Water Reclamation Plant for current and future recycled water customers, Science, Connections and Technology Showcase, Kearny High Educational Complex, Recycled Water Overview Class for Water and Wastewater Employees, and other community events.

La Jolla/Pacific Beach Water Main Replacement project newsletter containing the *Think Blue* logo was distributed to 3,568 residents and businesses in fall 2005. Additional fifty La Jolla/Pacific Beach newsletters sent to Pacific Beach library in fall 2005. The newsletter also contained the storm water pollution prevention phone number in our list of useful phone numbers.

AWTP WaterLines, the construction update newsletter for the Alvarado Water Treatment Plant Upgrade and Expansion Project, was distributed to 7,000 residents, businesses, and community facilities. The newsletter included an article describing the BMPs for use of pesticides and herbicides and cites where BMP brochures could be obtained.

Staff also continued to develop partnerships and collaborations with other related local and regional organizations to promote the importance water quality protection. Following is a list of other public participation opportunities that the Water Department was actively a part of in FY 2006:

- Eight public meetings for the San Dieguito Watershed Management Plan
- Five meetings to present and discuss the *Source Water Protection Guidelines for New Development* with City of Escondido, County of San Diego, City of San Diego Planning Department Citizen Advisory Group [twice], and Building Industry Association of San Diego
- Participation in Project Clean Water Watershed Technical Advisory Committee
- Participation in *Integrated Regional Water Management Plan*, part of Prop 50, seeking funds for water supply, water quality, and watershed projects

13.2 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

Because of the importance of public acceptance and understanding of water quality issues in order for pollution prevention efforts to be successful, the City will continue to actively pursue public participation activities to allow public input in storm water issues. To maximize efforts, the City will continue to weave opportunities for public involvement into ongoing public with similar or parallel issues, such as the City's Open Space Canyons Advisory Committee. The City will pursue "stand along" public participation opportunities for storm water issues, such as staffing booths at Earth Day fair or other large events, holding industry training/participation workshops, etc.

14 ASSESSMENT OF URMP EFFECTIVENESS

14.1 METHODOLOGY

The primary responsibility for the assessment of the overall program lies with the Storm Water Division. However, other departments and divisions subject to requirements within the URMP are responsible for self-evaluation and reporting to the Storm Water Division. As part of the reporting process, departments quantified activities relevant to each component of the URMP and provided a qualitative account of specific component activities. Each department also provided financial information on storm water expenditures for FY 2006 (refer to Section 15, *Fiscal Analysis*). Completed department FY 2006 *Annual Reporting Forms* are provided in Appendix B.

This Section assesses the City's efforts at two scales. First, at a broad scale, this Section provides an assessment of the City's overall storm water quality protection efforts. Because this assessment covers efforts City-wide, the assessment relies on correspondingly broad sets of data and analyses. Second, at a program-specific scale, this Section provides a quantitative and qualitative assessment of each URMP program area. As in past years, the City relies predominantly on qualitative assessments of program activities in this year's assessment, and, where possible, direct quantitative measures are used to assess the effectiveness of program areas. The program-specific assessment also includes analysis of each program's strengths and weaknesses.

This assessment has been conducted using the assessment approach and data categorization methodology developed by the Copermittees. The levels of data are listed below.

- Level 1: Compliance with Activity-Based Permit Requirements
- Level 2: Changes in Knowledge or Awareness
- Level 3: Behavioral Change/BMP Implementation
- Level 4: Load Reductions
- Level 5: Changes in Discharge Quality (no analysis at this level)
- Level 6: Changes in Receiving Water Quality

In addition, please note that in addition to relying on activity-based permit requirements as Level 1 data, the Storm Water Division uses non-Permit requirement targets that the City has identified as internal measures to assist in evaluating the effectiveness of program efforts.

14.2 OVERALL PROGRAM ASSESSMENT

Although the City has very few data sets that span several years, it is working to collect this information and improve the process. In addition, the City will continue to collaborate with its Copermittees in the periodic updating of the *San Diego Storm Water Copermittees Jurisdictional Urban Runoff Management Program Baseline Long-Term Effectiveness Assessment*, or BLTEA, which will provide Levels 5 and 6 data for use in analysis. Through the BLTEA, the City will be able to draw stronger conclusions regarding the trends in the quality of our receiving waters and effectiveness of our water quality protection efforts.

In the interim, however, it should be noted that the percentage of beach advisories and closures as compared to total beach mile days possible has continued to trend downward from calendar years 2000 through 2006 (see Figure 14-1). This Level 6 data is an indicator of continued

improvement in receiving water quality within the City, which is the ultimate management goal of the Storm Water Division. Although it is premature to draw conclusive linkages between program efforts and receiving water quality, it can be inferred from this data that **the City's, and specifically the Storm Water Division's efforts have, to some degree, positively contributed to protection of surface water quality in the region.**

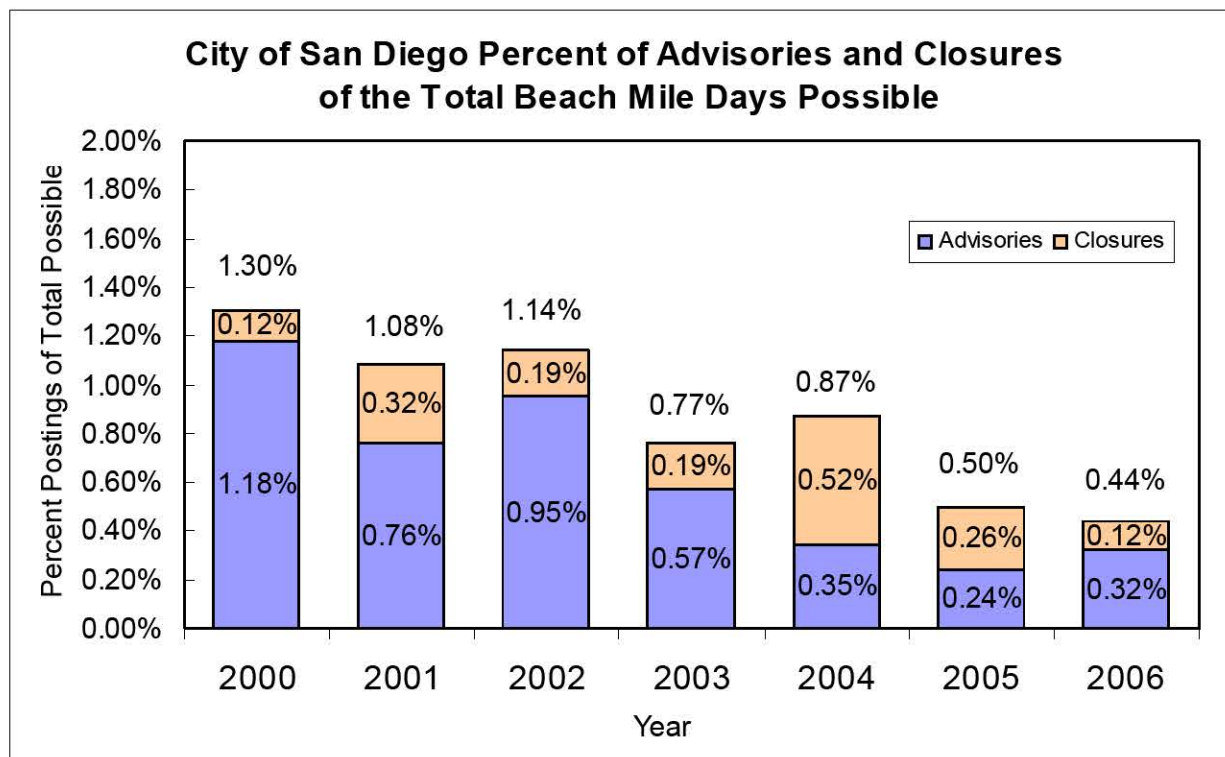


Figure 14-1. Percent of Beach Advisories and Closures as Compared to Total Beach Mile Days Possible.

The high variability of contributing factors to urban runoff monitoring, (e.g., geography, vegetation, duration and intensity of storm events, ambient environmental conditions, existing conditions of receiving waters, and wildlife, such as birds) makes it difficult to define typical storm water discharges, let alone develop standardized means of assessing their impacts. This variability in storm water monitoring data necessitates greater temporal and spatial breadth in data sets before they can be considered statistically significant. However, in some cases, it is possible to identify quantities of pollutants removed from the storm drain system, changes in public awareness of storm water issues, and identify behavioral change by the public—all of which may be used to draw inferences regarding effective program implementation. Therefore, as with previous program assessments, the Storm Water Division cannot make strong conclusions regarding the program's effectiveness on improving receiving water quality in FY 2006. However, the continued trend in reduced beach mile closures and advisories shown in Figure 14-1 is an indication that the City's efforts are likely having a positive impact on water quality in the region.

As another broad indicator of the overall effectiveness of the City's water quality protection efforts, especially the Metropolitan Wastewater Department, the City continues to reduce the number of sewer spills from 365 spills in 2000 to 71 in 2006 (see Figure 14-2). It can be assumed that the reduction in sewer spills throughout the years has resulted in reductions to the

amount of sewage loaded into the region's waterbodies and that discharge quality has improved.

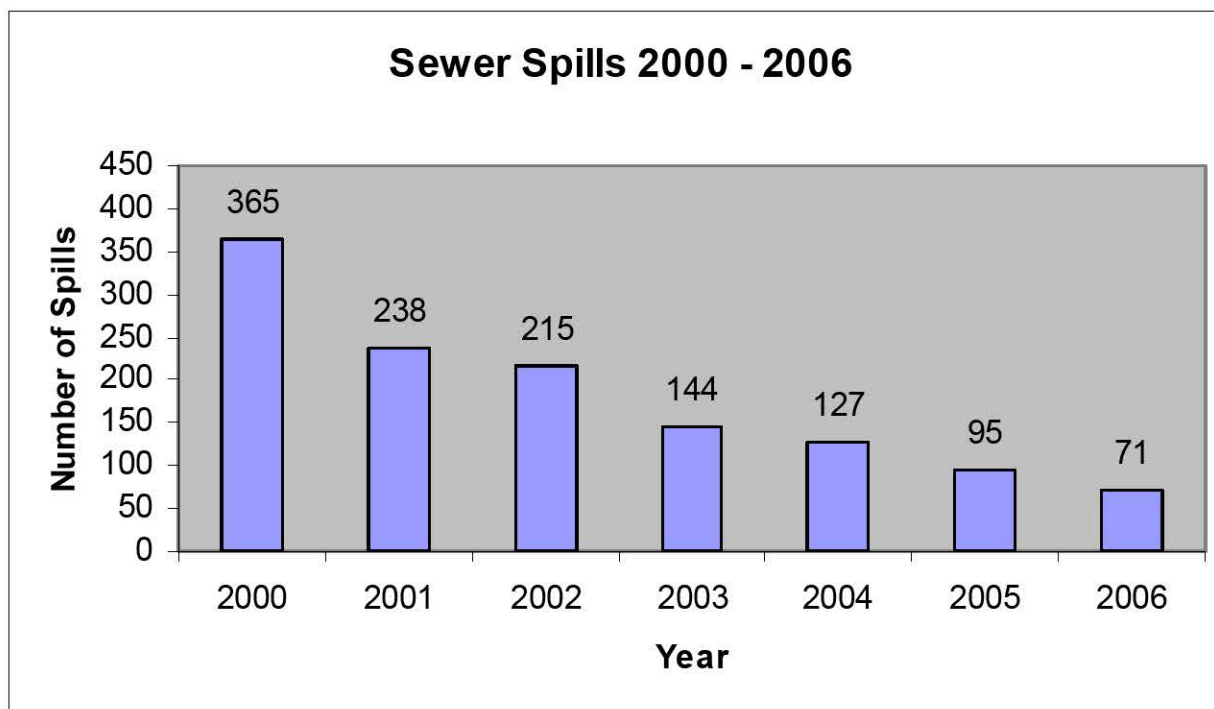


Figure 14-2. City of San Diego Sewer Spills from 2000 - 2006.

This program assessment concludes that the City is effectively implementing numerous activities that likely positively affect water quality in the San Diego region. Specific examples include:

- ✓ *The City's Think Blue education and outreach campaign continues to increase awareness of storm water pollution with residents and businesses. During the past couple of years, grant-funded efforts have focused on the San Diego Bay Watershed, particularly along Chollas Creek, a major tributary to San Diego Bay.*
- ✓ *The City continues to expand and maintain the low-flow diversion system to direct urban runoff during dry weather away from Mission Bay and other coastal areas to the wastewater treatment system.*
- ✓ *The City's pollution abatement efforts continue to identify and abate sources of pollution, as evidenced by the reductions in beach postings and closures over the last six years.*
- ✓ *The Storm Water Division has completed construction of two structural best management practices that will directly improve water quality in Mission Bay: the Mission Bay Central Computerized Irrigation System and the Tecolote Creek Water Quality Improvement Project in the Tecolote Watershed.*
- ✓ *The City's special monitoring studies have identified and characterized water quality issues, such as bacteria in Mission Bay, so that program efforts can be most effectively applied to sources of pollution.*

- ✓ *The City has obtained approximately \$12 million in grants and has contributed City funding to implement monitoring projects, special studies, habitat and wetlands improvement projects, cleanup events, and other BMPs all focused on protecting and improving water quality.*
- ✓ *The Development Services Department and the Engineering and Capital Projects Department continue to work collectively to oversee the development industry and ensure the City maintains storm water compliance at construction sites.*

14.3 ASSESSMENT OF PROGRAM COMPONENTS

14.3.1 Municipal

Table 14-1. Level 1: Compliance with Activity-Based Permit Requirements – Municipal.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.a.(5)	Inspect Storm Drain Structures	% Completion	100% (≈ 75,000)	21.6% (16,230)	17.3% (12,971)	21.4% (16,069)
F.3.a.(5)	Clean Storm Drains	% Completion	100% (≈ 1,050 Miles)	0.2% (2.21 miles)	0.5% (4.9 miles)	0.6% (6.3 miles)
F.3.a.(7)	Inspect Municipal Facilities	% Completion	100% (540*)	162% (876)	114% (615)	100% (540)

*Excludes City-owned leased properties.

Table 14-2. Levels 1 and 4: Achievement of In-House Targets – Debris Removed Due to Storm Drain Inspections and Cleanings.

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Inspect & Clean Storm Drain	FY 2004 level	31,925 tons (100% of FY 2004 total)	6,736.7 tons (21.1%)	26,635 tons (82.6%)	31,925 tons

Table 14-3. Level 1: Achievement of In-House Targets – Municipal Facilities with Water Quality Plans.

Municipal Facility	Type of Plan Implemented	Target	Number of Facilities
Municipal Yards/Operation Stations	SWPPP or WQMP	5	5
Airfields	SWPPP	2	2
Park & Recreation Facilities	BMP Manual for Storm Water Pollution	700*	700*
Landfills	SWPPP	7	7
Fire Department Facilities	SWPPP or WQMP	47	47
Wastewater Pump Stations and Reclamation Plants	SWPPP	11	11
Police Facilities	WQMP	13	13
Stadium	SWPPP	1	1
Water Treatment Plants	SWPPP	3	3
Reservoirs	SWPPP	9	9
Other Water Reservoirs and Pump Stations	Quarterly Storm Water Inspection Program	78	78

*Although each park and recreational facility is maintained and inspected by staff, storm water issues at these facilities are managed collectively by the Park & Recreation BMP Manual for Storm Water Pollution.

Program Strengths

All high priority municipal sites as listed in the above table are inspected at least annually and often times more frequently. Additionally, most high priority facilities, including all operations yards, operate under a Storm Water Pollution Prevention Plan or a Water Quality Management Plan. Table 14-3 lists these facilities.

Municipal employees continue to be aware of the importance of storm water pollution prevention and the implementation of BMPs. They continue to implement BMPs throughout the course of their work as evidenced in the *Annual Reporting Forms* in Appendix B (**Comment No. 26, SWU:10-5015.02:hammp**). For example, the Park and Recreation Department reduced trash loads by 19,785 tons through staff collection and contract programs in FY 2006; by maintaining the City's park and recreational facilities free from trash in a timely manner, especially after events, there is less chance for the trash to end up in the region's waterbodies. Also, the Environmental Services Department's Field Operations Division provided service to other departments/divisions, which resulted in 108.13 tons of trash and debris being diverted from the storm drain system and not loaded into local waterbodies. The services that were provided included bin service for sweepers, cleaning drains, cleaning right of ways, clearing transient camps, clearing unwanted vegetation, and clearing illegal dumps (**Comment No. 27, SWU:10-5015.02:hammp**). Reducing trash and debris loads into the MS4 has contributed to protecting water quality.

The Street Division's procedures for cleaning the City's MS4 in FY 2006 resulted in approximately 6,736.7 tons of debris collected from storm drain structures and channels and 4,122.09 tons of debris collected through street sweeping for a total of 10,858.79 tons. The debris was collected prior to reaching the region's beaches and bays. The City also participated in cleanup events, gathered recyclables, and conducted other activities to remove trash and debris before reaching the MS4.

Program Improvement Areas

The City will continue to study alternative funding sources, including an increase of the existing storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Per the Mayor's 5-year financial outlook for the City, funds allocated towards water quality protection and improvement activities, including storm drain inspection and cleaning, are anticipated to increase (approximately an additional \$10 million is being included in the FY 2008 budget for storm water-related activities per the Mayor's direction). In the meantime, the City will continue to make the most of its current resources through prioritization, focusing on structures most in need of attention as identified.

14.3.2 Industrial

Table 14-4. Level 1: Compliance with Activity-Based Permit Requirements – Industrial.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.b.6	Inspect Industrial Facilities	% Inspected	100% (315)	100% (315)	100% (243)	100% (381)

Program Strengths

The Storm Water Division continues to use an environmental consultant/contractor to perform industrial inspections. In addition to the environmental consultant, inspections are performed by well-trained pretreatment inspectors within the City's own Metropolitan Wastewater Department. The inspections are very thorough and include documentation on a field inspection sheet. In addition, the consultant/contractor continues to use a relational database to track inspections. This database should allow Storm Water Division staff to evaluate inspections using GIS and to be able to relate abnormalities in dry weather monitoring data to industrial activity and industrial activity with code compliance enforcement activity. While this system is still under development and being improved, the database allows staff to inventory, prioritize, and manage the data needed to implement the Industrial Program and evaluate its effectiveness.

The Storm Water Division continues to improve its number of industrial site inspections. The number may vary from year to year due to industrial sites, for example, going out of business, moving to a different locale, or changing the manner that they conduct their activities in a way that alters their status as industrial facilities. In addition, the Storm Water Division and its consultant began to target sites for inspection suspected of being high priority sites but not subject to the State Industrial Permit. This activity has not only contributed to improving the City's inspection efforts of industrial sites (from 243 sites in FY 2005 to 315 in FY 2006) but also to enhancing its complete list of prioritized industrial sites, which can be found in Appendix C-1 (**Comment Nos. 23 and 24, SWU:10-5015.02:hammp**).

Program Improvement Areas

The Storm Water Division will continue to work to identify those businesses that require coverage under the Industrial Program. It is anticipated that there will be an improvement in the tracking of enforcement and follow-up actions conducted at industrial facilities as database improvements are made to facilitate enforcement.

14.3.3 Commercial

Table 14-5. Level 1: Achievement of Activity-Based In-House Targets – Commercial.**

Applicable Permit Section	Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2005 Actual
F.3.c	Notify commercial business of storm water regulations	% completion	100% (100,000 business licensees)	45% (45,000)	11% (11,000)	11% (11,000)

*The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

**Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Table 14-6. Level 1: Compliance with Activity-Based Permit Requirements - Commercial.

Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2005 Actual
Inspect Commercial Facilities	% Completion	100% (3,000)	149.1% (4,473)	149% (4,469)	123% (3,703)

*The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

Program Strengths

The Food Establishment Waste Discharge (FEWD) Program within the Metropolitan Wastewater Department continues to be the backbone of the Commercial Program of the City. This program is staffed by inspectors formally trained to conduct storm water inspections in and around eating and drinking establishments. During the course of their inspections, they educate owners, managers, and workers on relevant storm water pollution prevention principles and distribute appropriate educational materials. FEWD is able to reach approximately 4,500 establishments annually (4,473 in FY 2006), which is approximately 32.1% of the eating and drinking establishments within the City (around 14,000).

FEWD also coordinates with the Storm Water Division in abating illegal discharges from such facilities. Code Compliance Officers from the Storm Water Division investigate referrals by FEWD (16 in FY 2006), and many of these investigations result in enforcement actions.

In addition to FEWD, the City's Commercial Program continues to be strong in the area of reports through the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax). The Storm Water Division receives many reports through these means regarding commercial facilities illegally discharging into the storm water conveyance system, which are investigated and abated through the issuance of Notices of Violation, Administrative Citations, Civil Penalties, and, in extreme cases, criminal prosecution by the Office of the City Attorney. The City holds that such actions contribute significantly to the enforcement of the Storm Water Ordinance and the education of commercial facility operators regarding storm water pollution prevention.

Furthermore, the City has been successful in taking steps to improve its tracking of enforcement actions by Permit section (i.e., residential, commercial, industrial, and construction). An interim database has been set up to record the illegal discharge reports received by the Storm Water Division and the enforcement action taken to address those reports. The database requires Code Compliance Officers to indicate the type of facility where the illegal discharge occurred, which will allow the Storm Water Division, in future fiscal years, to track enforcement actions at commercial facilities and perform better analysis of its Commercial Program.

Program Improvement Areas

While these inspections address the primary potential commercial source of storm water pollution, in future years, the Storm Water Division will continue efforts to expand the commercial inspection inventory. In FY 2007, Storm Water Division staff will coordinate with a consultant to design and implement an action plan to expand the City's commercial inspection inventory.

The Storm Water Division will also continue to improve its enforcement database in light of the re-issuance of the Municipal Permit and anticipated coordination with the other Copermittees to establish regional effectiveness assessment standards to allow for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses. Finally, similar to the Industrial Program, the City anticipates updating its fact sheets relating to commercial activities and educating operators with these new fact sheets in future years.

14.3.4 Residential

Table 14-7. Levels 1 and 4: Achievement of Activity-Based In-House Targets – Residential.*

Activity	Measure of Success	Target*	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
HHW Collection	% completion	100% of FY 03 total (1,043 tons)	533.9% (5,569 tons)	1,093 tons* (105%)	1,071 tons (103%)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Environmental Services Department's Household Hazardous Waste (HHW) Program continues to do well in the investigation, maintenance, collection, and remediation of hazardous substances, including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. The Environmental Services Department also collects HHW from certified collection centers within the City. Aside from the benefit of reducing loads by collecting over 5,569 tons of hazardous waste in FY 2006 (**Comment No. 27, SWU:10-5015.02:hammp**), this program helps protect water quality because a large component of the HHW Program is conducting education and outreach to educate residents on the proper use and disposal of hazardous materials. One inference that can be made regarding the rise in the number of tons of HHW collected over the years is that residents are changing their behavior to be more environmentally/storm water-friendly based on their heightened awareness as a result of City efforts (**Comment Nos. 25 and 26, SWU:10-5015.02:hammp**).

Also in FY 2006, City Code Compliance Officers investigated reports of illegal discharge into the storm water conveyance system in residential areas. Many of these investigations resulted in enforcement actions and also provided opportunities to educate members of the public.

The City continues to successfully reach out to residents and educating them (e.g., through water/sewer bill mailings) about the importance of implementing storm water pollution prevention principles to protect the region's beaches, bays, rivers, and lagoons. Particularly notable is the City's effort to effect behavioral changes among Chollas Creek Watershed residents through the implementation of an Integrated Pest Management campaign.

Furthermore, the City has been successful in taking steps to improve its tracking of enforcement actions by Permit section (i.e., residential, commercial, industrial, and construction). An interim database has been set up to record the illegal discharge reports received by the Storm Water Division and the enforcement action taken to address those reports. The database requires Code Compliance Officers to indicate the type of facility where the illegal discharge occurred, which will allow the Storm Water Division, in future fiscal years, to track enforcement actions at residential sites and perform better analysis of its Residential Program.

Program Improvement Areas

The City will continue to work to improve the tracking of enforcement actions at residential sites. The Storm Water Division will also continue to improve its enforcement database in light of the re-issuance of the Municipal Permit and anticipated coordination with the other Copermitees to establish regional effectiveness assessment standards to allow for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses.

14.3.5 Land Use Planning

Table 14-8. Level 1: Compliance with Activity-Based Permit Requirements – Land Use Planning.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.1.b	Apply SUSMP requirements to applicable development	% completed	100% (266 projects)	100% (266 projects)*	100% (302 projects)	100% (378 projects)

*This number is assumed to be consistent with the number of projects that were reviewed for SUSMP requirements since all applicable projects must be reviewed for compliance prior to permit approval.

Program Strengths

The Community Planning and Investment Department continues to refine the General Plan Update document for anticipated adoption by the City Council in 2007. The Conservation; Mobility; Urban Design; Public Facilities, Service, and Safety; and Recreation elements of the draft General Plan Update include language on water quality and watershed protection principles to help guide the City and development community in protecting the region's water resources.

In addition, as community plans are updated throughout the City, water quality and watershed protection principles continue to be incorporated into them, as exhibited by the updates to the Ocean Beach and Mission Valley community plans currently underway.

The City's *Storm Water Standards Manual*, which requires permanent (SUSMP) BMPs and construction BMPs on all applicable development projects, continues to be applied to all public and private development projects. In FY 2006, 251 private and 15 CIP projects were considered Priority Projects under the Model SUSMP, and were required to incorporate treatment control BMPs, as required by the *Storm Water Standards Manual*. Each of these projects implemented permanent BMPs in their project design to address receiving water quality (**Comment No. 26, SWU:10-5015.02:hammp**). Assuming that these BMPs performed with some degree of effectiveness, it can also be inferred that the City's requirement to implement development-related BMPs is having some positive effect on the discharge and receiving water quality in the region in FY 2006 (**Comment No. 28, SWU:10-5015.02:hammp**).

Development Services Department staff performing review of permanent BMPs on private projects also continues to undergo periodic training and are involved in biweekly discussions involving storm water requirements for development. An educated City force aware of storm water issues and pollution prevention issues helps ensure that development proposal take into consideration water quality.

In addition, it is reasonable to infer that the City's continued efforts to educate its labor force and the public on storm water pollution prevention principles and enforce its Storm Water Ordinance have resulted in a higher level of awareness of storm water pollution, which, in turn, have led to increased BMP implementation throughout its jurisdiction and beyond, whether that be a resident choosing to deposit used motor oil at a designated collection center instead of into a storm drain or a commercial establishment using covered bins to store its trash.

Program Improvement Areas

The Storm Water Division will work to continue training of City staff responsible for implement SUSMP requirements on both public and private projects. It is anticipated that work on updating

the City's *Storm Water Standards Manual* will commence in FY 2007 in light of the re-issuance of the Municipal Permit and in coordination with the other Copermittees.

14.3.6 Construction

Table 14-9. Level 1: Compliance with Activity-Based Permit Requirements – Construction.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.2.g	Inspect high priority construction sites	% completion	100% (180)	100% (180)	100% (129)	100% (69)
F.2.g	Inspect medium/low priority construction sites	% completion	100% (919)	100% (919)	100% (800)	100% (759)

Program Strengths

The City continues to be successful in tracking and inspecting all private and CIP construction projects with a high, medium, or low construction priority rating. BMPs are required and being enforced for all construction projects consistent with the requirements of the City's *Storm Water Standards Manual*. The Field Engineering Division, through its Construction Storm Water Management Section, continues to be able to inspect and ensure effective implementation of BMPs on grading sites. The section includes one Senior and three Associate Civil Engineers to provide in-house expertise on storm water requirements to resident engineers, as well as serve as training coordinators and liaisons to other departments and divisions on storm water issues. The fact that inspections are occurring signifies that BMP implementation is happening, and awareness of storm water pollution prevention principles is being promoted as a top value.

Program Improvement Areas

Trainings and meetings focusing on site erosion and sediment controls will continue to be conducted for Inspection Services Division staff in the Development Services Department and Field Engineering Division staff in the Engineering & Capital Projects Department.

Although the Inspection Services Division and Field Engineering Division have effective programs in place to ensure all job sites are inspected and tracked, the City generally lacks software and data management tools designed to capture data for reporting purposes. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. Staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department anticipates implementing these actions within the next 12 months (**Comment No. 17, SWU:10-5015.02:hammp**). This will be an area for continued improvement in future years, and, in light of the re-issuance of the Municipal Permit, the City anticipates coordinating with the other Copermittees to formulate regional data standards to allow for cross-jurisdictional and cross-programmatic analyses and effectiveness assessment.

14.3.7 Monitoring

Table 14-10. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Attachment B(c)	Monitor Coastal sites	% Completed	100% (357)	100% (357)	100% (357)	100 (323)
Attachment E(4)	Monitor dry weather sites	% Completed	100% (308)	100% (306*)	100% (311)	98% (293)
Attachment E(4)	Conduct follow-ups on DWM exceedances	% Completed	100% (113)	100% (113)	100% (113)	data unavailable

*Number of sites can vary each year as new sites are identified or old ones are abandoned.

Program Strengths

In FY 2006, Storm Water Division staff visited 306 sites (308 sites minus two sites lost to construction) and performed monitoring at 306 sites within the storm water conveyance system as part of the Dry Weather Monitoring Program. This program provides thorough coverage of the six watershed areas within the jurisdiction of the City. Dry weather monitoring data is stored in a spreadsheet, which allows for limited GIS mapping. This data storage method has allowed Storm Water Division staff to perform limited statistical analysis in order to refine investigational triggers and identify areas that need further investigation.

The Storm Water Division's monitoring staff continues to implement the Coastal Storm Drain Monitoring Program as scheduled.

Program Improvement Areas

The Storm Water Division will continue to work on being able to collect and provide its monitoring data in a format that would allow for greater GIS mapping and analysis and statistical capabilities.

14.3.8 Enforcement

Table 14-11. Level 1: Compliance with Activity-Based Permit Requirements – Enforcement.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate identified illicit discharges	% Completed	100%	100% (1,531)	100% (1,659)	100% (1,694)

Program Strengths

The Investigations and Enforcements Section of the Storm Water Division continues to be efficient in conducting investigations and issuing the appropriate enforcement actions. Appendix F provides a record of the investigations performed by the Code Compliance Officers in FY 2006. Note that every single reported discharge reported to the Storm Water Division was investigated. In FY 2006, 729 notices of violations, 234 administrative citations, 149 civil penalties were issued, and almost \$160,000 in fines were assessed. Two storm water-related prosecutions by the City Attorney's Office closed in FY 2006 as well. Code Compliance Officers also continue to do well in educating violators about the importance of storm water pollution prevention through the educational materials (*Think Blue* fact sheets) that they hand out and the

numerous interactions (both face to face and via the telephone) that they have with the public throughout the course of their duties.

Program Improvement Areas

The Investigations and Enforcements Section will continue to make enhancements to its database to further facilitate the tracking and analysis of investigations and enforcement actions. In addition, the Division will continue to strive to reduce response times to investigations.

14.3.9 Illicit Discharge Detection and Elimination

Table 14-12. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate potential illicit discharges	% Completed	100% (214)	100% (214)	35% (48)	45% (47)
F.5.d	Eliminate discharges	% Completed	100% (94)	89% (84)	25% (33)	45% (47)

Program Strengths

Storm Water Division staff worked successfully in FY 2006 to increase the rate of investigations successfully completed. In this fiscal year, staff improved its tracking of investigations and was able to document not only an increase in the number of discharges investigated, but also a significant increase in the number of discharges eliminated. Of the 94 instances in which an illicit discharge was detected, only ten cases resulted in no responsible party identified. The majority of the 94 illicit discharges resulted in appropriate enforcement action, ranging from the distribution of educational materials to the levying of civil penalties. It can be inferred that, because progress is being made towards the identification and elimination of illicit discharges, discharge water quality is improving in the City (**Comment No. 28, SWU:10-5015.02:hammp**).

Program Improvement Areas

In FY 2006, the Storm Water Division was unable to complete follow-up investigations in a timely manner due to budgetary and staffing challenges. As a result, the Storm Water Program was issued a Notice of Violation for not completing follow-ups associated with dry weather monitoring. To remedy this, the City contracted with Weston Solutions to conduct dry weather follow-up investigations. Weston completed follow-up sampling and investigations for the 2003, 2004, 2005, and the current 2006 (FY 2007) seasons (**Comment No. 18, SWU:10-5015.02:hammp**).

In light of the expanded Dry Weather Monitoring program outlined in the recently-adopted Municipal Permit (Order No. R9-2007-0001), the Storm Water Division will seek sufficient resources to meet the expanded Dry Weather Monitoring Program (approximately an additional \$10 million is being included in the FY 2008 budget for storm water-related activities per the Mayor's direction).

14.3.10 Education

Table 14-13. Level 1: Compliance with Activity-Based Permit Requirements – Education.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.4	Conduct outreach	% completion	100% of 2003 number of 89	26.7% (24)	Unknown. Outreach tracking was disrupted in FY 2005 on into FY 2006	55% (49)

Table 14-14. Level 1: Achievement of Activity-Based In-House Targets – Education.*

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Distribute educational materials	% completion	100% of 2003 amount of 48,725	1,213.6% (591,346)	Unknown. Materials distribution was not tracked in FY 2005.	316.% (154,390)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Storm Water Division continues to implement an education and outreach program targeted for both City staff and external target audiences, including residents, business, industry, construction and children. The City's *Think Blue* campaign consists of commercials, public service announcement development and airing, a website, training, and educational material development and distribution to educate the public about storm water and urban runoff pollution prevention.

Other departments and divisions continue to conduct education and outreach to employees and target audiences. Departments continue to provide staff with general and activity-specific storm water training. Additionally, many departments have created and distributed a large number of storm water educational materials and advertisements and have conducted workshops and outreach programs as both internal and external education measures. These activities demonstrate the level of storm water awareness achieved by the City among its employees, which inevitably translate into greater education and outreach efforts towards the public.

The Storm Water Division was unable to conduct its annual residential storm water survey in FY 2006. However, it is anticipated that the survey will be once again conducted in FY 2007. While recent data is not available, it can be inferred from the FY 2004 and previous surveys that behavioral change continues to progress in a positive direction as a result of the City's efforts to educate the public and its labor force on storm water pollution prevention principles and enforce its Storm Water Ordinance vigorously. To review, per the results of the *Storm Water Pollution Prevention Program 2004 Follow-up Survey of City Residents*, six behaviors changed in a positive and statistically significant direction.

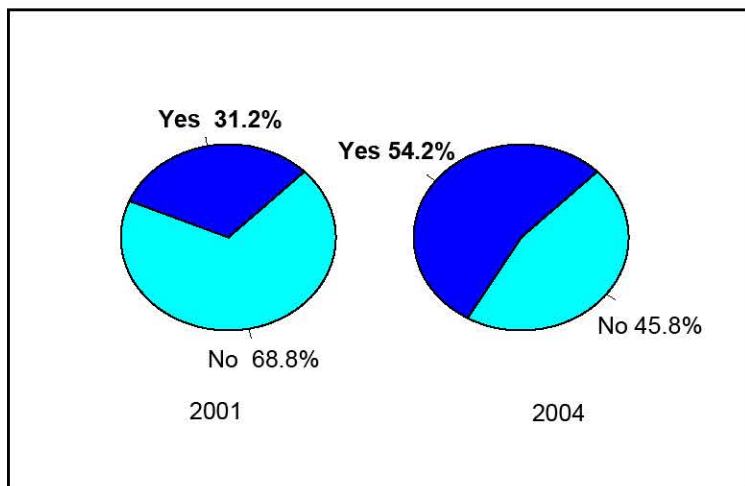


Figure 14-3. Awareness of the Slogan *Think Blue*.

Insofar as the *Think Blue* slogan is concerned, the increase in awareness over time has been quite dramatic. Awareness of the slogan has steadily increased over time and now extends to over half of the city's population. In 2001, some 31.2 percent of the City population registered awareness of the slogan. The change/increase is also statistically significant (see Figure 14-3).

In FY 2006, the City completed the process of moving the site from an external, private web management company and server to a City-managed site and web server. The transfer of the site disrupted the City's tracking of web visitors. The City has data to report for only the last month of FY 2006, which was around 6,000 hits. Because the site was still available on the outside provider host site until mid June 2006, it is reasonable to assume that the site continued to attract the same volume of visitors as in years past. The number of web site visits in FY 2006 is estimated to have been 400,000.

The site includes all of the campaign's informational fact sheets, brochures, the City's Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, a calendar of upcoming storm water events and outreach activities, the PSAs, and other educational videos. A large portion of the site is available to browsers in both the English and Spanish languages.

Program Improvement Areas

As a result of the decreased broadcast media campaign, in FY 2006, the Storm Water Division realized a decrease in contacts (see Table 14-15). The declining contact volume coincides with two consecutive years of decreased advertising for *Think Blue*.

Table 14-15. Level 2: FY 2002 through FY 2006 Contacts Received*.

Fiscal Year	Total Contacts	Water Quality Contacts	Other (e.g., Information, Wrong Number, etc.)
2002	2,904		
2003	4,206		
2004	4,695		

Fiscal Year	Total Contacts	Water Quality Contacts	Other (e.g., Information, Wrong Number, etc.)
2005	3,818	1,659	2,159
2006	1,902	1,531	371

*This table was presented in previous Annual Reports as only including contacts made through the Storm Water Pollution Prevention Hotline.

The City will continue to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change. Specific areas for improvement include:

- Reestablishing annual residential behavior data gathering and assessment activities;
- Reestablishing a mass media campaign;
- Focusing all jurisdictional education and outreach activities around the pollutants of concern identified for each watershed within the City's jurisdiction;
- Implement an outreach and education methodology that uses a social psychology approach that will maximize the City's efforts to achieve sustainable behavior changes in all target audiences as identified in the Municipal Permit and to perform Level 3 assessment;
- Strengthening the municipal training program; and
- Working collaboratively with other jurisdictions to address mobile businesses as a high priority pollution source (**Comment No. 25, SWU:10-5015.02:hammp**).

14.3.11 Public Participation

Table 14-16. Level 1: Achievement of Activity-Based In-House Targets – Public Participation.*

Activity	Measure of Success	Target	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Events allowing the public to participate	# Conducted	500	423 (85%)	488 (98%)	629 (129%)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The City's efforts to promote public participation continue to be notable. Departments and divisions throughout the City have provided opportunities for public involvement and have implemented measures to solicit public input related to storm water issues. Some of these efforts include, but are not limited to, workgroup meetings, several Citywide hotlines to take public comments and questions, volunteer programs and events, community and council meetings, fairs, presentations, and workshops.

Non-governmental organizations continue to be actively engaged in implementing the City's storm water program. For example, San Diego Coastkeeper continues to be a key partner in developing Project SWELL, the City's storm water education program for grade-school students, and providing valuable input on its conceptual BMP projects in the City's watersheds and along the La Jolla Shores Area of Special Biological Significance (ASBS).

Program Improvement Areas

The City will continue to actively pursue public participation activities to allow public input on and participation in storm water issues and policies. The City will also continue to involve non-profit organizations, such as San Diego Coastkeeper, in the development of water quality activities.

15 FISCAL ANALYSIS

The Fiscal Analysis component was developed to identify costs associated with the Urban Runoff Management Program (URMP) for the entire City. Implementation of the Municipal Storm Water Permit requirements on a Citywide basis were projected (in FY 2001) to cost as follows:

Table 15-1. City's 2001 estimate of implementation costs for Order No. 2001-01.

<i>Permit Year/Budget Permit</i>	<i>Cost*</i>
1. July 1, 2001 – June 30, 2002	\$27,254,833
2. July 1, 2002 – June 30, 2003	\$55,828,016
3. July 1, 2003 – June 30, 2004	\$49,421,368
4. July 1, 2004 – June 30, 2005	\$50,678,255
5. July 1, 2005 – June 30, 2006	\$52,928,582
Total Five-Year Cost	\$236,111,054

*Estimated costs only. Actual yearly expenditures .

15.1 FISCAL ASSESSMENT

For Fiscal Year 2006, the City's actual citywide expenditures for implementation of the Municipal Storm Water Permit requirements consisted of the following components:

- Land Use Planning
- Construction
- Municipal
- Industrial
- Enforcement
- Commercial
- Residential (including public participation)
- Education (including public participation)
- Illicit Discharge Detection and Elimination
- Program Assessment

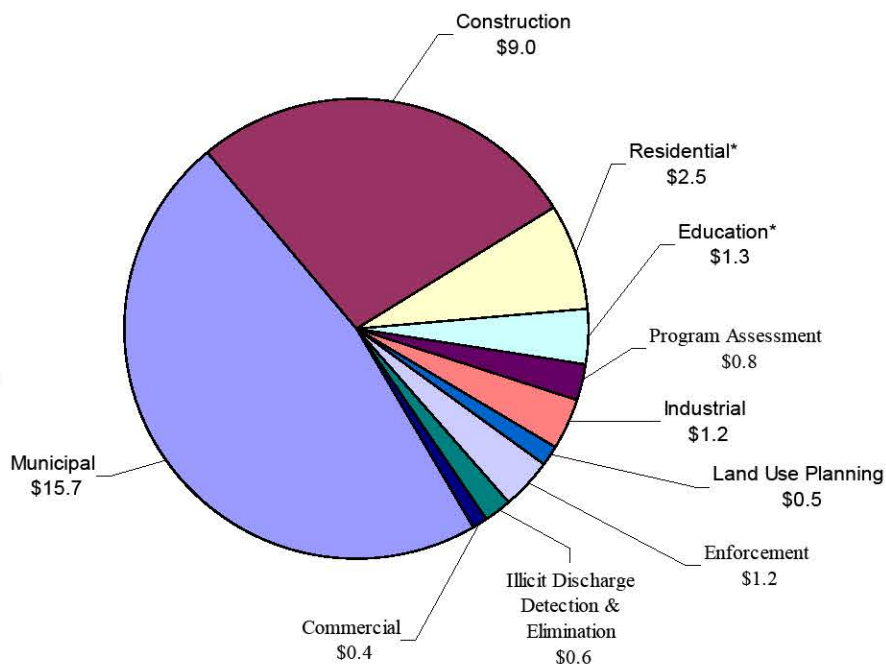


Figure 15-1. FY 2006 Citywide Expenditures by Permit Area.

A total of \$33,526,843 was actually expended in FY 2006 for the implementation of Citywide URMP activities. This amount includes costs paid by sewer and water rate payers and costs reimbursed by project applicants. An overview of the expenditures reflected in these components is described below. Also, the attached table details expenditures by component throughout the City.

Land Use Planning

Activities identified in the Land Use Planning and New Development Section represent personnel and non-personnel expenses for plan check reviews, project design and SUSMP implementation, General Plan updates, and development and management of watershed plans.

Construction

Activities identified in this section represent personnel and non-personnel expenses for plan check review services, field inspections related to grading permits, public improvements, and building activities.

Municipal

Activities identified in this section represent personnel and non-personnel expenses for street sweeping, storm drain and channel maintenance, BMP implementation, and housekeeping (i.e., debris disposal and landscaping).

Industrial

Activities identified in this section represent personnel and non-personnel expenses for inspection of industrial facilities.

Commercial

Activities identified in this section represent personnel and non-personnel expenses for FEWD inspections.

Enforcement

Activities identified in this section represent personnel and non-personnel expenses for enforcing the City's storm water ordinance and implementation of the administrative civil penalties and citation process.

Residential

Activities identified in this section represent community clean up activities and educational activities.

Education and Public Participation

Activities identified in this section represent personnel and non-personnel expenses for training, educational materials, outreach events, and public service announcements.

Illicit Discharge Detection and Elimination

Activities identified in this section represent personnel and non-personnel expenses for the identification and elimination of illicit discharges.

Program Assessment

Activities identified in this section represent personnel and non-personnel expenses for citywide management of the municipal permit.

15.2 GRANT AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for Municipal Permit requirements, the City actively seeks grant and other funding sources for special studies and capital projects. Funding for these projects are limited to the projects specified and cannot be reallocated to other projects. Therefore, these resources are currently not used in calculations for total expenditures. The

following table lists projects that were initiated and/or in-progress during FY 2006. The City managed a total of approximately \$8.2 million in special projects during FY 2006.

Table 15-2. Funding for Special Projects.

Funding Source	Project	Amount
Proposition 13, Clean Beaches Initiative Grant	San Diego River–Ocean Beach Water Quality Improvement	\$1.5 million
Proposition 13, Clean Beaches Initiative Grant	Mission Bay Computerized Central Irrigation System	\$1.1 million
Proposition 13	San Diego Watershed Common Ground Project	\$0.9 million
Proposition 13	Chollas Creek Water Quality Protection and Habitat Enhancement Project	\$2.2 million
California State Appropriations	Rose and Tecolote Creeks Water Quality Improvement	\$2.0 million
Proposition 50	Areas of Special Biological Significance Project Planning	\$0.5 million
Total Grant Funding		\$8.2 million

15.3 FUNDING SOURCES

Citywide implementation of Municipal Permit requirements is funded through four main types of governmental funds: the General Fund, Special Revenue Funds, Enterprise Funds, and Internal Service Funds.

15.3.1 General Fund

The General Fund is the general operating fund for the City.

15.3.2 Enterprise Funds

Enterprise Funds are initiated for specific purposes and funded through fees for services. This funding type is designated for the operations, management, maintenance, and development of the department providing the service. For implementation of Citywide URMP activities, activities are funded through the following enterprise funds:

- Airports Fund
- Development Services Enterprise Fund
- Recycling Fund
- Refuse Disposal Fund
- Sewer Revenue Funds
- Water Utility Fund
- Storm Water Fee

15.3.3 Internal Service Funds

Internal Service Funds are similar to Enterprise funds, in which fees are paid for services, but customers are usually other City departments. For implementation of Citywide URMP activities, activities are funded through the following internal service funds:

- Engineering and Capital Projects Fund
- Equipment Division Funds

15.4 FUTURE PROJECTIONS

As mentioned before, Citywide expenditures are primarily funded through the General and non-General funds. One source of enterprise fund revenue is the Storm Water fee, which funds a portion of the City's storm drain maintenance activities, drainage capital projects, and efforts to reduce pollutants in the storm water. Annual revenue projections remain at approximately \$6 million. To supplement this revenue, other funding options are being explored, including a possible increase of the existing storm drain fee discussed below.

Over future fiscal years, including FY 2007, and in light of new Municipal Permit requirements, Citywide URMP expenditures are projected to rise. Departments will continue to work diligently to prioritize and stretch the dollars that they have to effectively implement their components of the URMP.

15.4.1 *Alternative Storm Water Funding Study*

In FY 2006, the City continued to study alternative sources of funding, including a possible increase of the existing storm drain fee, to support activities pursuant to the City's Municipal Permit as well as other regulatory programs (Total Maximum Daily Loads, Areas of Special Biological Significance, and Cleanup and Abatement Orders). The City is studying the implications of such alternative funding sources and the benefits and challenges of implementation.

It is anticipated that such funding would enable the City to take a more integrated approach in addressing the requirements of the various water quality regulatory programs through comprehensive watershed-based planning and monitoring/data tracking, significant investments in the City's infrastructure (e.g., storm drains) and urban runoff-related programs (e.g., street sweeping), updates to the City's development regulations, enhanced enforcement, and greater education and outreach efforts.

16 SPECIAL PROJECTS

This section identifies and describes the City's completed, ongoing, and planned special projects and grants that are designed to examine and/or improve water quality or habitat conditions in the San Diego region.

16.1 BACTERIA IMPAIRED WATERS TMDL PROJECT 1 FOR BEACHES AND CREEKS

In 1998, numerous coastal beaches were placed on the 303(d) as impaired for bacteria indicators. As a result of this action, the Regional Board coordinated with Tetra Tech, Inc. to develop a technical report of the bacteria impaired beaches and creeks in the boundaries of San Diego Regional Water Quality Control Board 9. The City was designated as the Stakeholder Advisory Group (SAG) representative.

In FY 2006, the City reviewed the December 2005 draft technical report and submitted comments by the February 2006 submission date. During the review and comment period, the SAG held several meetings to discuss the draft technical report. Activities will continue during the next reporting period.

16.2 DRAFT INVESTIGATION ORDER NO. R9-2005-0216 FOR THE DISCHARGE OF BACTERIA, NUTRIENTS AND SEDIMENTS INTO IMPAIRED LAGOONS AND ADJACENT BEACHES AND CREEKS

On June 27, 2005, the Regional Board held the first public workshop regarding the TMDL for Impaired Lagoons and Adjacent Beaches and Creeks in the San Diego Region. Within the City of San Diego, Famosa Slough and Los Penasquitos Lagoon were identified for the development of TMDLs.

In July 2005, the City provided written comments to the Regional Board regarding the tentative Investigation Order No. R9-2005-0216. In November 2005, the City reviewed and submitted comments on the draft technical report prepared by the Regional Board. In January 2006, the Regional Board re-issued the tentative investigation order to the inland MS4 municipalities because of their potential contribution of pollutants impacting the identified lagoons' water quality. During this reporting period, several SAG meetings were held to discuss the investigation order and the draft technical report. Activities will continue during the next reporting period.

16.3 CLEANUP & ABATEMENT ORDER NO. R9-2005-0126 FOR THE SAN DIEGO BAY SHIPYARDS CONTAMINATED SEDIMENTS

On April 29, 2005, the City and other organizations received a Tentative Cleanup and Abatement Order (CAO) from the Regional Board with regards to contaminated marine sediments in San Diego Bay at the Shipyard Sediment Site. The CAO states that the City has caused or permitted the discharge of urban storm water pollutants through the municipal separate storm water sewer system (MS4) and Chollas Creek. Storm water is discharged from the MS4 at SW4 (Southwest Marine, Inc., leasehold), SW9 (NASSCO leasehold) and Chollas Creek and may contribute to accumulation of pollutants in the marine sediments at the Shipyard Sediment Site. The CAO requires the City and other organizations to eliminate the effects of sediment contamination (metals, total suspended solids, petroleum products, and synthetic organics) to aquatic life in San Diego Bay.

In fall 2005, the City initiated an investigation in the storm drain system at the end of Sampson Street. This storm drain adjacent to the BNSF Railroad tracks had an accumulation of sediment in the catch basin. Three samples were collected and analyzed for PCBs and PAHs. The analytical results indicated that these chemicals were present. Based upon this information the City issued Notices of Violation to BAE Systems and SDG&E. Both parties submitted reports indicating that the sources of these chemicals were most likely not from their facilities. SDG&E cleaned the storm drain system and stated they implemented BMPs to protect the storm drain system during the Silver Gate Power Plant demolition. There is concern that the degraded bay sediments are transported up into the storm drain system during high tides due to tidal intrusion. Information regarding this issue was forwarded to Craig Carlisle with the Regional Board on November 22, 2005.

The City is awaiting the release of the draft Technical Report supporting the Cleanup and Abatement Order recommendations to provide comments.

16.4 MISSION BAY BACTERIA TMDL

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.5 MISSION BAY CLEAN BEACHES PROJECT – MISSION BAY CENTRAL COMPUTERIZED IRRIGATION SYSTEM

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.6 ROSE AND TECOLOTE CREEKS WATER QUALITY IMPROVEMENT PROJECT

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.7 PACIFIC BEACH POINT STUDY

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.8 MOUTHS OF CHOLLAS AND PALETA CREEKS TMDL FOR TOXICITY AND DEGRADED BENTHIC COMMUNITY

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.9 SWITZER CREEK, DOWNTOWN ANCHORAGE AND B STREET/BROADWAY PIERS TMDL FOR TOXICITY AND DEGRADED BENTHIC COMMUNITY

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report

16.10 DIAZINON MONITORING IN THE CHOLLAS CREEK WATERSHED

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.11 CHOLLAS CREEK DISSOLVED METALS TMDL

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.12 INTEGRATED PEST MANAGEMENT (IPM) EDUCATION AND OUTREACH PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.13 CHOLLAS CREEK WATER QUALITY PROTECTION & HABITAT ENHANCEMENT PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.14 SAN DIEGO WATERSHEDS COMMON GROUND PROJECT

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.15 REGIONAL HARBOR MONITORING PROGRAM

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.16 SAN DIEGO BAY HARBOR BACTERIA TMDL

This project is discussed in the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

16.17 SAN DIEGO RIVER – OCEAN BEACH WATER QUALITY IMPROVEMENT PROJECT

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.18 SAN DIEGO RIVER RESTORATION PROJECT

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.19 SAN DIEGO RIVER PARK MASTER PLAN

This project is discussed in the San Diego River Watershed Urban Runoff Management Program Annual Report.

16.20 SAN DIEGO MARINE LIFE REFUGE AREA OF SPECIAL BIOLOGICAL SIGNIFICANCE

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.21 BEACH AREA LOW FLOW STORM DRAIN DIVERSION PROJECT, PHASE III

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

16.22 MISSION BAY SEWAGE INTERCEPTOR SYSTEM UPGRADES

This project is discussed in the Mission Bay & La Jolla Watershed Urban Runoff Management Program Annual Report.

17 CONCLUSIONS AND PROGRAM AMENDMENTS

17.1 SUCCESSES AND CHALLENGES

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The City's storm water conveyance system, which collects runoff from streets, rooftops, driveways, parking lots, and other impervious areas, flows directly to beaches and bays without receiving treatment. Through the hard work of the Storm Water Division and other City staff, there has been a reduction in the percentage of beach advisories and closures as compared to total beach mile days possible over the last six years (see Figure 17-1). In addition to reducing beach postings, the City has also reduced the number of sewage spills between 2000 and 2006 (see Figure 17-2).

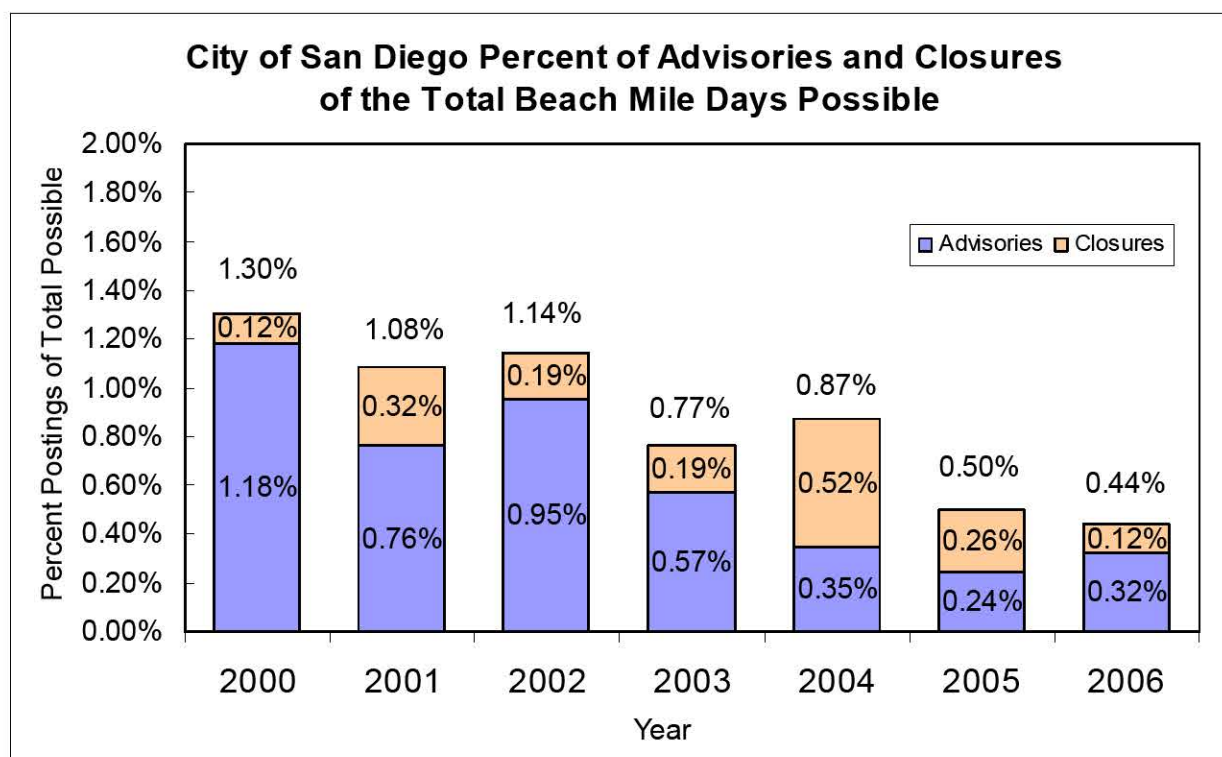


Figure 17-1. Beach Posting and Closures in City of San Diego Between 2000 and 2006.

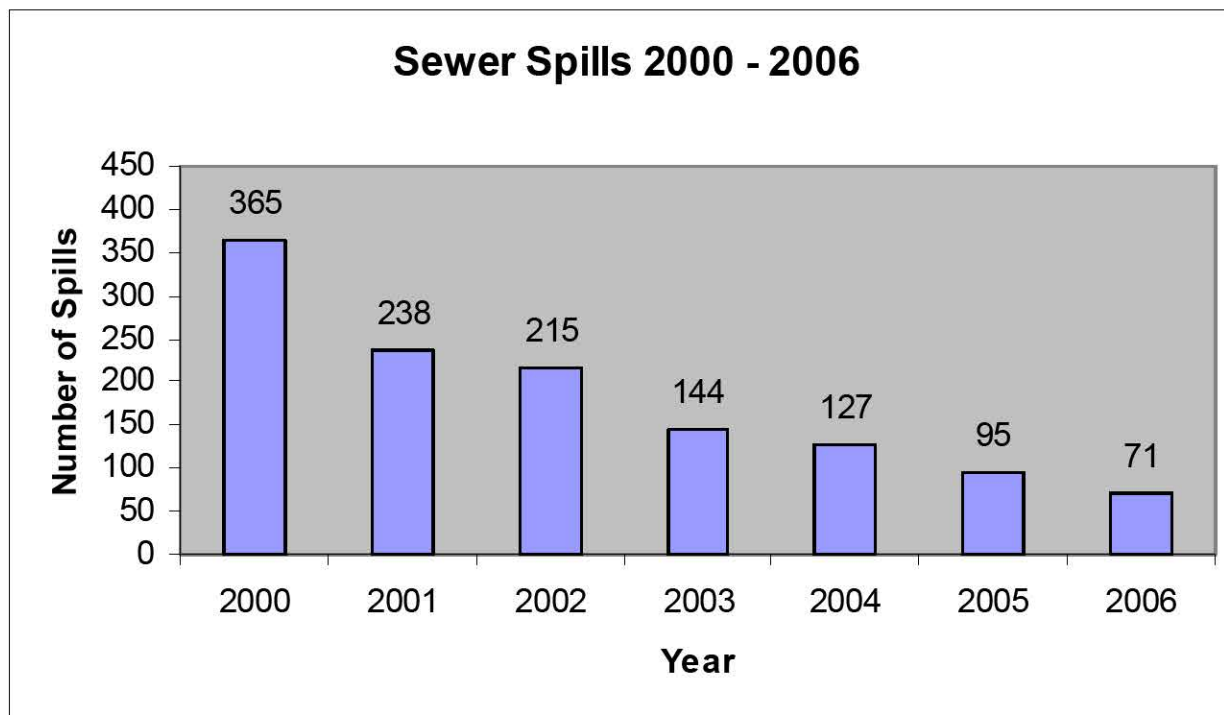


Figure 17-2. Number of Sewer Spills in City of San Diego Between 2000 and 2006.

17.1.1 Successes

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Division achieved significant benefits to water quality beyond its \$2.3 million budget by leveraging \$18,683,300 in special projects. Specifically, the City received \$12,086,000 in grant funds, supplemented by over \$6.4 million in City and partner agency matching funds. The grants are helping further the City's clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay. Special studies at Mission Bay Park and the mouth of the San Diego River have resulted in the implementation of bacteria source abatement projects. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

In addition to the above mentioned special projects, the Storm Water Division achieved many other successes in implementing the URMP in FY 2006.

- Completed construction of the Mission Bay Central Computerized Irrigation System.
- Completed construction of the Rose and Tecolote Creeks Water Quality Improvement Project (a baffle box/trash separator in the Tecolote Watershed).
- Eliminated 20 illicit discharges in FY 2006.
- Continued its efforts in seeking out and abating illegal discharges and was responsible for issuing 632 notices of violation, 233 citations, 130 civil penalties, and successfully prosecuting two cases.
- The City continued implementing the *Storm Water Standards Manual* in FY 2006.

- Approximately 45,000 mailing inserts accompanying business license renewals and business tax certificate mailings were distributed to industrial and commercial businesses. It served to educate businesses of the City's storm water best management practices requirements and ordinance.

17.1.2 Challenges

The City faces significant challenges in effectively gathering and managing storm water program data. With a growing population of over 1.2 million residents and 237 square miles of urbanized development, the City is huge relative to other jurisdictions in the region. The enormity of the data management challenge is something the Storm Water Division is continually working to overcome. To address the need for effective data management capabilities, the Storm Water Division continued discussions in FY 2006 to design and build an integrated, Internet-based database and software system. The system will be designed to manage data Citywide, with a web-based interface so that City departments can easily submit URMP data to the Storm Water Division. As of the writing of this report, the Storm Water Division has begun efforts to expand and improve its industrial program database, and has embarked on a division-wide database needs assessment. These efforts will form the foundation for future improvements, especially in light of the recently adopted Municipal Permit (Order No. R9-2007-0001).

In addition to the Municipal Permit, the City must also simultaneously comply with the requirements of other regulatory programs, such as Areas of Special Biological Significance (ASBS), Total Maximum Daily Loads (TMDLs), and Cleanup and Abatement Orders (CAOs). Although these regulatory programs are separate from the Municipal Permit, their ultimate goal is the same: the improvement and protection of the region's water quality. The convergence of these regulatory programs mandates that the City devote resources to advance planning efforts and nurturing even stronger bonds and partnerships with other stakeholders in the region to achieve its goal of improved water quality.

17.2 FUTURE RECOMMENDATIONS

To continue to improve program efforts, the Storm Water Division has identified three major program goals, as detailed below.

- *Employ an integrated approach to program implementation.* The City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, ASBS, and CAOs. By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is employing an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for an integrated approach to implementation in FY 2006 and continues to employ this strategy in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts.

- Improve data management, reporting & assessment. Also important, the City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. It is hoped that the refined standards would lead to a more regionally integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The anticipated commencement in the latter half of FY 2007 of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.
- Study needs & options for storm water-dedicated funding sources. Staff continued to study long-term, dedicated funding mechanisms in FY 2006, including an increase in the current storm drain fee, to support the anticipated ramping up in the City's storm drain and water quality protection programs over the long run. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

To provide focus for program improvements in FY 2007, the Storm Water Division has identified the following specific objectives:

- Continue strategic, integrated approach to planning program efforts (especially in light of the program updates required by the recently-adopted Municipal Permit [Order No. R9-2007-0001]);
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;
- Refinement of the City's industrial and commercial inventories;
- Improvements in industrial and commercial inspection programs.

17.3 PROPOSED PROGRAM AMENDMENTS

The Storm Water Division is amending two URMP components as part of the FY 2006 Annual Report: *Water Systems*, Component 2.1.14, and *Development Review and Permitting*, Component 3.2. A copy of the amended components is provided in Appendix A.

EXHIBIT D

CITY OF SOLANA BEACH



JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM (JURMP) ANNUAL REPORT

JANUARY 2007

Reporting Period:
July 1, 2005 to June 30, 2006

Respectfully Submitted to:
San Diego Regional Water Quality Control Board
In compliance with:
Order No. 2001-01, NPDES Permit No. CAS0108758

CITY OF SOLANA BEACH
ANNUAL REPORT
STORM WATER PROGRAM
JANUARY 2007

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Reporting Period: July 1, 2005 to June 30, 2006

Report Prepared by: Danny King
Environmental Specialist

ACKNOWLEDGEMENTS

The City of Solana Beach wishes to expressly thank each Copermittee Storm Water Program Manager/Coordinator and their staff for their efforts during the Regional Stormwater Management Committee meetings and the workgroups and their development of model program components, the sharing of ideas and willingness to cultivate program consistency throughout San Diego County as an effective means of improving water quality in the Region. The level of collaboration among agencies and across jurisdictional boundaries is unique and a credit to the professionalism and efforts of the San Diego County Copermittees.

The activities described in this report are not merely *written words on a page*, but are the result of *tremendous efforts* of City staff to integrate many new activities into their daily routines and tasks. The City's FY 05/06 Storm Water Program Coordinator wishes to thank the Storm Water Team for their assistance, dedication and collaboration to make the City's FY 05/06 storm water program successful *and meaningful*.

Storm Water Team:

- Code Enforcement Officer, Tom Warden
- Fire Chief/Director of Public Safety, David Ott
- Public Works Supervisor, Dave Kirkwood
- City Inspector, Hector Ezquerro
- Principal Engineer, Dan Goldberg
- Community Services Director, Steve Apple
- Associate Engineer, Jim Greenstein
- Assistant Planner, Kathy Johnson
- Engineering Technician, Robert Martinez

A big thank-you also to the Public Works Crew for all their hard work!

- Maintenance Worker, Bill Stedman
- Maintenance Worker, Dave Thomas
- Maintenance Worker, Bruce Gentry
- Lead Maintenance Worker, Danny Hernandez

CITY OF SOLANA BEACH
ANNUAL REPORT/ STORM WATER PROGRAM
JANUARY 2007
TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES viii	
Acronyms ix	
Executive Summary.....	2
Certification Statement.....	5
Chapter 1: Introduction.....	7
1.1 Report Organization.....	7
1.2 Common Activities	8
1.3 Report Content	9
1.4 Program Goals.....	9
Chapter 2: Municipal Component (Existing Development).....	12
2.1 Inventory of Municipal Facilities	12
2.2 Pollutant Source Identification	15
2.3 Threat to Water Quality Prioritization	16
2.4 Pollution Prevention Methods	17
2.4.1 Proactive Approach to Pollution Prevention.....	19
2.4.2 New Municipal Pollution Prevention Methods.....	27
2.5 Pollution Prevention Strategy Effectiveness	29
2.6 New Activities and Improvements for FY 06/07	29
2.7 Summary	30
Chapter 3: Industrial Component (Existing Development)	33
3.1 Inventory of Industrial Facilities.....	33
3.2 Pollutant Source Identification	34
3.3 Threat to Water Quality Prioritization	35
3.4 Pollution Prevention Methods	36
3.5 New Activities and Improvements for FY 06/07	37
3.6 Summary	37
Chapter 4: Commercial Component (Existing Development).....	39
4.1 Inventory of Commercial Facilities	39
4.2 Pollutant Source Identification	42
4.2.1 2005-Dry Weather Monitoring Results.....	43
4.3 Threat to Water Quality Prioritization	44
4.3.1 Business Community Education Campaign.....	45
4.4 Pollution Prevention Methods	46
4.4.1 Proactive Approach to Pollution Prevention / Commercial	
Property	46
4.4.2 New Pollution Prevention Methods	47
A) Common Commercial Property BMPs.....	47
B) Other Pollution Prevention Methods Affecting Commercial Properties	
48	

	4.4.3 Ensuring Implementation through Commercial Property Inspections	49
4.5	Enforcement	52
	4.5.1 Citations	53
	4.5.2 Multifaceted Approach	54
4.6	New Activities and Improvements for FY 06/07	54
4.7	Summary	55
Chapter 5:	Residential Component (Existing Development)	57
5.1	Pollution Prevention Methods	57
	5.1.1 Hazardous Waste Collection and Recycling	58
	5.1.2 Annual Clean-up Day	60
	5.1.3 24-hour Hotline	60
	5.1.4 Community Workshops	61
	5.1.5 Pet Waste Bag Dispensers	61
	5.1.7 Education and Outreach	62
5.2	Threat to Water Quality Prioritization	65
5.3	Implementation of BMPs	65
Chapter 6:	Land-Use Planning Component (New Dvlpmt)	69
6.1	Assessment and Modification of General Plan	69
6.2	Project Approval and Environmental Review Process Modifications	69
	6.2.1 Project Requirements	72
	6.2.2 SUSMP	73
6.3	Education	74
6.4	New Activities and Improvement for FY 06/07	75
6.5	Summary	76
Chapter 7:	Construction Component	78
7.2	Modification of Construction and Grading Approval Process	79
7.3	Construction Site Inventory	80
	7.3.1 Capital Improvement Projects Inventory	88
7.4	Threat to Water Quality Prioritization	88
7.5	BMPs and Pollution Prevention Methods	90
7.6	Enforcement and Inspections	91
7.7	New Activities and Improvements in FY 06/07	96
7.8	Summary	97
Chapter 8:	Illicit Discharges Detection and Elimination Component	100
8.1	IC/ID Program History and Current Prohibitions	100
8.2	Dry Weather Monitoring Program (DWMP)	102
	8.2.1 Historical Results	103
	8.2.2 Results from the 2003 DWMP	106
	8.2.3 Results from the 2004 DWMP	106
	8.2.4 Results from the 2004 DWMP	106
8.3	Interim Action Levels to Trigger Follow-up Investigations	107
8.4	Complaints, Reports, and Investigations of IC/IDs	107
	8.4.1 Complaint-Tracking Modification	108
8.5	Coastal Monitoring Program	108
8.6	Wet Weather Monitoring	110
8.7	Public Education	111

8.8	New Activities and Improvements in FY 06/07.....	111
8.9	Summary	112
Chapter 9:	Education Component.....	114
9.1	Pollution Prevention through Education – Jurisdictional Activities	115
9.1.1	Staff Training.....	115
9.1.2	Annual Beach Cleanup Days	116
9.1.3	Storm Drain Tile Marker Installation.....	116
9.1.4	Local Community Events	117
9.1.5	School Programs.....	118
	School / Adult Community Education.....	118
9.1.6	Workshops	118
9.1.7	Educational Brochures.....	119
9.1.8	City Newsletter (Shorelines).....	120
9.1.9	Web Site.....	120
9.1.10	Business Community	121
9.1.11	Fletcher Cove Kiosk Education.....	122
9.1.12	Additional Signage at Seascape Sur Outfall.....	122
9.1.13	Special Events Permit.....	122
9.2	Pollution Prevention through Education – Regional Activities...	122
9.2.1	Regional Monitoring	122
9.2.2	Model Programs.....	123
9.2.3	Linking to Regional Resources	123
9.3	Pollution Prevention through Education – Watershed Activities	123
9.4	New Activities and Improvements for FY 06/07	126
9.5	Summary	127
Chapter 10:	Public Participation Component	129
	Chapter Content	130
10.1	Community Events.....	130
10.1.1	Fiesta Del Sol.....	130
10.1.2	Beach Clean Up Opportunities	130
10.2	Community Workshops.....	131
10.3	City Council Meetings and Workshops	131
10.4	Copermittee Meetings.....	132
10.5	Collaborative Community Partnerships.....	132
	School / Adult Community Education.....	134
	Community Workshops.....	134
10.6	Other Opportunities	135
10.6.1	City Storm water Hotline	135
10.6.2	Web Site.....	135
10.6.3	Local Media.....	136
10.7	New Activities and Improvements for FY 06/07	136
10.8	Summary	137
Chapter 11:	Assessment of JURMP Effectiveness.....	139
11.1	“A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs	139
11.2	Level 1: Compliance with Activity-Based Permit Requirements	140
11.3	Levels 2&3: Changes in Knowledge/Awareness and Behavioral Changes	140

Chapter 12: Fiscal Analysis	161
12.1 Revenue Sources	161
12.2 FY 2005/2006 Expenditures	162
12.3 FY 2005/2006 Budget	162
Chapter 13: Special Investigations	166
“The Mystery of the Bacteria at Seascapes Sur...Still Going...”	166
13.1 Introduction	166
13.3 The 2002 Investigation	168
13.3.1 More Testing	169
13.3.2 Traveling Further Upstream	169
13.3.3 Just When We Thought the Problem was Solved	171
13.3.4 Brainstorming	172
13.3.5 Not again!	172
13.3.6 Action Taken By Property Owners During FY 03/04 Annual Reporting Period	173
13.4 Timeline of Significant Actions	177
13.5 Future Activities	178
13.6 Summary	179
Chapter 14: Conclusion and Recommendations	181
14.1 Conclusion	181
14.2 Recommendations	182
References	184
Appendix A: Street Sweeping Materials	186
Appendix B: Smoking Ban Ordinance	187
Appendix C: Storm Water Facility Inspection Form	191
Appendix D: Civil Penalties Matrix	194
Appendix E: Shorelines Newsletter Spring 2006	199
Appendix F: Shorelines Newsletter Fall/Winter 2004/2005	201
Appendix G: Shorelines Newsletter Summer 2006	203
Appendix H: Construction BMP Guide	206
Appendix I: Building Plan Check Comment Form	210
Appendix J: Storm Water Plan Check Comment Form	211
Appendix K: SUSMP Pending Project List	212
Appendix L: Beach Blanket Movie Night Flyer	213
Appendix M: Shorelines Newsletter Winter 2005	215
Appendix N: Public Project Pre-Con Meeting Agenda	216
Appendix O: Private Project Pre-Construction Checklist	218
Appendix P: Construction Inspection Checklist	220
Appendix Q: Wet Weather Triggered Action Plan-Construction	223
Appendix R: Construction Brochure	226
Appendix S: Sample Contact/Complaint Database	230
Appendix T: Special Events Permit	231

Appendix U: SUSMP Counter Handout.....	233
Appendix Z1: 2005 Dry Weather Monitoring Program Results	235i
Appendix <u>Z2: Assessment Tables.....</u>	<u>250</u>

LIST OF TABLES

LIST OF TABLES

Table 2-1	Existing Municipal Facilities, By Priority Level	13
Table 2-2	Solana Beach Storm Water Team.....	26
Table 3-1	Existing Industrial Facilities	34
Table 4-1	Changes to High Priority Commercial Facilities	39
Table 4-2	303(d) Water Bodies and COCs	42
Table 4-3	High Priority Commercial Facilities by Type of Business.....	45
Table 4-4	Administrative Fine Assessments	53
Table 5-2	Household BMPs	66
Table 7-1	Construction Site Inventory- Large Grading Projects	82
Table 7-2	Construction Site Inventory- Small Private Projects.....	85
Table 7-3	Construction Site Inventory- Small Grading Projects	85
Table 7-4	Public Projects Pre-Construction Meetings	86
Table 7-5	CONSTRUCTION FOLLOW-UP ACTIVITIES 2005/2006.....	87
Table 11-1	Municipal Inspections	141
Table 12-1	General Fund Revenue Sources 2005/2006.....	161
Table 12-2	FY 05/06 Storm Water Expenditures Budget	162
Table 12-3	FY 06/07 Storm Water Management Budget.....	163
Table 13-1	DWMP Initial Results (Sampled August 6-7,2002)	168
Table 13-2	Upstream Testing Results.....	171

ACRONYMS

Acronym	Description
BMP	Best Management Practices: minimum standards that everyone and every business must adopt to reduce or eliminate urban runoff. BMPs are part of all storm water programs.
DWMP	Dry weather monitoring program: the procedures, requirements and program to collect samples during the dry season each year. Samples are typically collected over a one-two day period and then sent to the lab for analysis.
HHW	Household Hazardous Waste
IC/ID	Illegal Connection and Illicit Discharge: the term used to discuss connections to the MS4 that are not approved (illegal) or non-storm water (illicit) discharges.
JURMP	Jurisdictional Urban Runoff Management Program: Program has 11 components and requires new procedures for ensuring storm water compliance within its jurisdictional boundaries.
MEP	Maximum Extent Practical: A term used by the RWQCB, and Copermittees to refer to the “best efforts,” or “as much as possible.”
MS4	Municipal Separate Storm Sewer System: references the City’s storm water drainage system and the City’s wastewater conveyance system.
NPDES	National Pollution Discharge Elimination System: the Federal program created by the 1972 Clean Water Act that governs State water quality / storm water programs.
Permit	Order 2001-01 issued by the RWQCB, which requires cities to adopt and implement the JURMP, WURMP, and SUSMP.
PPM	Pollution Prevention Measure: a method, procedure, and/or process to control, reduce, prevent, or eliminate pollution.
RWQCB	Regional Water Quality Control Board. The Board is a California board, but for the <u>purposes of this report</u> , RWQCB represents the local water quality board (San Diego Regional Water Quality Control Board).
SUSMP	Standard Urban Storm water Mitigation Plan: a plan as to how the City will alter its review of construction plan (public and private) and estimate the extent of pollutant contributions from the site; the plan must specify BMPs that the City will require.
WURMP	Watershed Urban Runoff Management Program: programs that focus on urban water runoff from a larger point-of-view, which is the entire watershed (a watershed is aka a hydrological unit). Programs must specify how cities will work together on planning urban projects and solving water quality problems.
WWMP	Wet weather monitoring program: the procedures, requirements and program to collect samples during the wet season each year. Samples are collected on a monthly basis, depending on weather.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

During this reporting period, the City worked with other Copermittees of Order 2001-01 to continue developing model guideline programs and implementing all the requirements of the Permit (Order 2001-01). The City implemented its Jurisdictional Urban Runoff Management Program (JURMP) that was developed and submitted on February 21, 2002. In a relatively short time frame, the City was able to create a Storm Water Team consisting of staff from various departments, implemented all of the components of the JURMP and trained all of its staff as to the expectations of the Permit.

Accomplishments to prevent and reduce pollution, eliminate contamination and improve water quality include the following:

- *The City successfully implemented comprehensive educational, inspection and enforcement procedures for municipal, commercial, residential, industrial and construction component activities as described in the City's JURMP.*
- *The City maintains a Storm Water Team that integrates staff from various departments, bringing a diverse "team approach" to the program.*
- *The City monitors a Storm Water Hotline and email address to receive complaints, questions, and general information 24 hours a day, seven days a week, 365 days a year.*
- *The City provided reoccurring training for all staff regarding general Best Management Practices and specific department-related BMPs.*
- *The City updated the inventory of all commercial properties in the City, including prioritization of those that pose a threat to water quality.*
- *The City inspected a majority of high priority businesses and notified all high-priority businesses of specific BMPs related to each type of business.*
- *The City collaborated with neighboring jurisdictions within their respective watersheds to develop educational brochures, surveys, and host community events and distributed hundreds of brochures to residents and the business community.*
- *The City continues to modify plan-check review processes to include a requirement for Erosion Control Plan, BMPs, structural change and runoff mitigation alterations in project proposals and/or construction activities.*
- *The City participated in the 2005 San Diego County WWMP.*
- *The City investigated about 43 complaints regarding urban runoff. These complaints only include the ones in which follow-up actions were required.*

On average the City receives approximately 3-4 calls a week from residents reporting a potential violation.

- The City continues to enforce a smoking ban at all local beaches and parks, the first jurisdiction in the nation to do so.*
- The City provided several opportunities for public participation including Beach Clean-up Day, Copermittee meetings and Household Hazardous Waste drop-off collection sites.*
- The City implemented a new “Environmental” review to ALL building/grading permit applications to ensure every project that gets approved by the City is reviewed for storm water management.*
- The City co-sponsored a large HHW collection event held at the Del Mar Fairgrounds to allow residents to dispose of excess HHW free of charge. This was a supplement to the City’s ongoing HHW Program is provides for its residents.*
- The City Council lowered the grading threshold from 200 cubic yards to 50 cubic yards for all projects within the City. This caused more projects to be assessed by the City engineers to implement pre, during, and post construction BMPs than previously.*
- The City co-sponsored the first annual “Beach Blanket Movie Night” that provided residents a night of free movies and environmental education.*
- The City authorized a part-time Code Enforcement Officer to continue weekend patrols for storm water violations.*
- The City added storm water specific language and reporting duties to new “standard” street sweeping contract to be used in all current and future contracts.*

CERTIFICATION STATEMENT

CERTIFICATION STATEMENT

I certify that the work performed, and the report prepared herein, was conducted under the supervision and guidance of the City of Solana Beach Public Works/Engineering Department to meet the requirements of the *Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County and the San Diego Unified Port District* (NPDES No. CAS0108758). I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Chandra P. Collure, P.E.

Date

City Engineer

City of Solana Beach

CHAPTER 1

Introduction

CHAPTER 1: INTRODUCTION

The City of Solana Beach (hereinafter, referred to as “City”) has prepared this report in compliance with Order No. 2001-01, NPDES Permit No. CAS0108758, *Water Discharge Requirements for Discharges of Urban Runoff From Municipal Separate Storm Sewer Systems Draining Watersheds of the County of San Diego, the Incorporated Cities of San Diego and The San Diego Unified Port District* (hereinafter referred to as “Permit”). The California Regional Water Quality Control Board, San Diego Region (hereinafter, referred to as “RWQCB”) issued the Permit on February 21, 2001 to all Copermittees (all Cities of San Diego County, the County of San Diego, the Airport Authority and the Port District).

Under the Permit, each Copermittee is required to submit an Annual Report in January of each year describing its jurisdictional program for the previous fiscal year (July 1 to June 30). The purpose of the report is to document to the RWQCB the City’s progress and program accomplishments during the reporting period.

On February 21, 2002, Copermittees were required to implement a new comprehensive storm water program (Jurisdictional Urban Runoff Management Program [JURMP]) and submit a copy of the new program to the RWQCB. The implementation of this program occurred during the reporting period July 1, 2005 to June 30, 2006 for this 2007 Annual Report. This Annual Report will cover the fourth full year of implementation under the Permit.

The scope of the City’s storm water program was significantly expanded by the requirements of the new Permit. The Permit also requires a more comprehensive Annual Report of the City’s activities to reduce urban runoff than had been submitted in previous years (prior to 2001). This 2007 Annual Report covers the City’s storm water program activities throughout the entire 2005/2006 fiscal year reporting period.

1.1 Report Organization

This report contains a description of all activities conducted to meet the requirements of the Permit. The information will be discussed in chapters applicable to each component of the JURMP, which occurred during this reporting period.

The organization of this report follows the outline of the JURMP and includes the following sections:

- Municipal (Existing Development) Component
- Industrial (Existing Development) Component
- Commercial (Existing Development) Component
- Residential (Existing Development) Component
- Land Use Planning for New Development Component
- Construction Component
- Illicit Discharges Detection and Elimination Component
- Education Component
- Public Participation Component
- Assessment of JURMP Effectiveness Component
- Fiscal Analysis Component
- Special Investigations
- Conclusions and Recommendations

This report will also include a discussion about the sections of the City's JURMP that have been altered or updated, if any occurred during the respective reporting period. A complete copy of the City's JURMP is available upon request or can be viewed and downloaded from the City's Website at www.ci.solana-beach.ca.us (click on "storm water programs").

1.2 Common Activities

The City participated with the Copermittees of Order 2001-01 in several common activities (workshops, educational program component elements, model programs, etc.) that allowed for a sharing of resources and knowledge, which will provide a more cohesive message to the community. The common activities are described in the Copermittee Unified Urban Runoff Management Program (URMP) Annual Report, submitted with this report by the County of San Diego and incorporated herein by reference.

In addition, the Copermittee Unified Urban Runoff Management Program (URMP) Annual Report includes a "common response" to letters received by Copermittees from the RWQCB.

The City of Solana Beach supports the common response approach to the above issues, as it will help bring consistency to the various jurisdictional programs, reduce confusion among communities and agency staff, and improve program coordination among agencies. Where appropriate, this report will reference the Copermittee common response to these activities.

1.3 Report Content

The content of this report includes the activities associated with implementing the storm water program (JURMP). The development of the City's JURMP required the City to inventory and prioritize its municipal facilities, commercial and industrial businesses, develop a method to educate the business and residential community about the new requirements, evaluate existing municipal ordinances, and adopt new laws if needed to ensure enforcement action was available, develop a method for educating agency staff, and develop a commercial, industrial and construction site inspection program.

The content of this report will include discussions about the programs and activities that occurred during this reporting period (July 1, 2005 to June 30, 2006). The City presumes that the reader recognizes that significant activity has occurred subsequent to the end of the reporting period for this report. As a result, throughout this report a summary of post-reporting period activities will be discussed (where appropriate) to assist the RWQCB in understanding the City's efforts to reduce urban runoff and pollution and to comply with the Permit.

1.4 Program Goals

The primary goal of the City's JURMP is to reduce or eliminate pollutant discharge into the City's MS4 (municipal separate sewer storm system) and receiving water bodies, including the Pacific Ocean, thus improving the quality of water in the City, neighboring jurisdictions, and region-wide.

The City recognizes that a *scientifically measurable* change in water quality is a long-term goal that would require many years of data collection, research and analysis, extending beyond the life of the current Permit (which expires in 2006). As a result, the City's program includes short-term goals expected to focus the City's program on permit compliance as well as water quality improvements.

The following summarizes the City's current short-term annual program goals:

- FY 02/03: Integration of WURMP(s), SUSMP and JURMP activities
- FY 03/04: Complete assessment of JURMP (using regional strategy)
- FY 04/05: Complete overall assessment of Regional Programs JURMP, WURMP and SUSMP; prepare for new Permit from RWQCB
- FY 05/06: Assessment of JURMP, WURMP and SUSMP in preparation of new Permit anticipated to be adopted in early 2007. This involves the assessment of water quality data to focus on the sources of high priority pollutants locally as well as watershed and regionally.

CHAPTER 2

Municipal Component

CHAPTER 2: MUNICIPAL COMPONENT (EXISTING DEVELOPMENT)

In accordance with Permit Section F.3.a, this section of the report describes the City's efforts to prevent or reduce pollutants in runoff from municipal land use areas and activities.

In each Annual Report to the RWQCB, this section will include modifications to the City's inventory of municipal facilities, pollutant source identification and potential threats to water quality. In addition, this section of each Annual Report will include results from the City's efforts to implement BMPs at municipal facilities, program accomplishments and activities. Also, a summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or Permit compliance.

Municipal facilities and areas within the City of Solana Beach include public parks, public buildings, streets, roads, and parking lots, a public works yard, and the MS4 system. During this reporting period, the City conducted a comprehensive re-evaluation of its municipal sites to understand potential sources of pollution, threats to water quality, and to develop a plan to mitigate or eliminate urban runoff and pollution from its facilities by implementing Best Management Practices (BMPs).

2.1 Inventory of Municipal Facilities

During this reporting period, in response to the requirements of the Permit and in an effort to improve the quality of water in the region, the City once again inventoried its municipal sites and activities. Table 2-1 presents the City's municipal facilities, by prioritization level. *There are no changes in the City's inventory of municipal sites from those submitted to the RWQCB in the City's 2005 Annual Report.* The City's municipal facilities include five public buildings (City Hall, one Fire Station, the Marine Safety Center and the Community Centers at La Colonia Park and Fletcher Cove), one Public Works Yard, six public parking lots, City streets and roads, the Municipal Separate Storm Sewer System (MS4) and the beach (which consists of three access locations: Seascape Sur, Tide Beach Park, and Fletcher Cove).

**Table 2-1
Existing Municipal Facilities, By Priority Level**

Facility Name	Facility Address	Type of Activity	Priority
Public Works Department	1764 Highland Drive	Materials storage, fleet parking, administration	High
North Seascape Sur Surf Park	Public beach access west of Highway 101	Public beach	High
Roads, streets,	Citywide	Circulation	High
MS4 System	City-wide	Storm-water conveyance system	High
Fletcher Cove Parking Lot	North end of Plaza St.	Parking	High
Distillery Parking Lot	Sierra and Lomas Santa Fe		
Solana Beach and Tennis Club	West end of Dahlia St.		
Seascape Sur Parking Lot	Seascape Sur Easement		
Del Mar Shores Parking Lot	Sierra Ave. near Del Mar Terrace		
Del Mar Beach Club East Parking Lot	Sierra Ave. east of Del Mar Beach Club Dr.		
City of Solana Beach Fire Department	500 Lomas Santa Fe	Public Building - Fire Station, fleet and fire equipment storage	Medium
City of Solana Beach City Hall	635 S. Highway 101	Public Building -Administrative	Low
Marine Safety Department, Fletcher Cove	111 S. Sierra Ave.	Public Building Administrative, marine safety equipment storage	Low
Fletcher Cove Community Center	111 S. Sierra Ave.	Public Building – Community Center	Low
La Colonia Park and Community Center	715 Valley Ave	Public Park and Building – Community Center, administrative, park	Low
Tide Beach Park	302 Solana Vista Drive	Public beach	Low

2.1.1 Inspection Frequency of Municipal Sites

The City inspects all of its municipal sites listed above on a continuous basis. Every winter, prior to the wet season, the Public Works Yard (Yard) is given a complete inspection and all Public Works employees are given a complete storm water refresher training seminar. Also, the Public Works Crew is put through a practice run of the Weather Triggered Action Plan to prepare for the upcoming

wet season. At this annual inspection, the current inventory of the storm water BMPs kept on-site (gravel bags, bio-filter rolls, straw rolls, etc) is documented and additional supplies are ordered if necessary. Additionally, every Wednesday, the Public Works Yard is inspected by the Environmental Specialist during the “weekly safety meetings.” All storm water issues are discussed and the Yard is thoroughly cleaned, if necessary. Visual inspections are conducted on a daily basis by the Public Works Crew. Here are the specific dates and numbers of inspections for the City’s municipal areas:

Public Works Yard: Weekly on Wednesdays and every October to prepare for wet season. Inspection and training conducted last year on 6/28/06.

Roads and Streets: Continuous visual inspections daily. Every street is swept at least once per month. Main arterial streets are swept once per week and collector streets are swept every other week.

Parking Lots: Visual inspections daily. Every City parking lot is swept once per month.

MS4 System: Continuous visual inspections weekly. Highest priority catch basins cleaned annually. Approximately four (4) cubic yards of debris was removed from the MS4 system during this reporting period.

Fire Department: Continuous visual inspection by City Staff. Last inspection was conducted on June 28, 2006.

City Hall: Continuous visual inspection by City Staff. Last inspection was conducted on June 28, 2006.

Marine Safety: Continuous visual inspection by City Staff. Last inspection was conducted on June 28, 2006.

Parks and Recreation Department (La Colonia Community Center): Continuous visual inspection by City Staff. Last inspection was conducted on June 28, 2006.

Beaches: Daily inspection by City Staff (Marine Safety Department).

2.1.2. Follow-up Activities

The City did not have any follow-up activities as a result of municipal inspections. All facilities were implementing the necessary BMPs and all employees were

properly trained. The Public Works Yard required no corrective action as everything remained in compliance. The Wet-Weathered Action Plan was successfully implemented and the employees were trained again and had a practice run prior to the beginning of the wet season.

2.1.3 Implementation of Pesticides, Herbicides and Fertilizer BMPs

The City has implemented all the appropriate pesticide, herbicide and fertilizer BMPs that are listed in the JURMP. The City's Public Works Department only handles approximately 10% of pesticide, herbicide, and fertilizer application for the City. There is a small amount of Round-Up kept on-site at the Public Works Yard that is stored and locked indoors. All employees of the Public Works Department are registered with the County of San Diego Department of Agriculture and are inspected on an annual basis. As part of the Integrated Pest Management Program, Public Works Staff has switched from using harmful pesticide Dursdan to a more environmentally friendly insecticidal latex coating to control the roach problems in City sewer manholes.

Additionally, as briefly discussed in last year's Annual Report, a region-wide IPM Program was implemented in FY 05/06 through the Regional Outreach Group. This group involves all Copermittees and had a designated budget set aside to implement the program. This regional program is discussed more thoroughly in the Regional Unified URMP submitted by the County. The City of Solana Beach is and will continue to be an active member in this project and have begun to implement it into our City practices.

2.2 Pollutant Source Identification

To assist the City in determining the source of pollutants in its receiving water bodies, and/or the receiving water bodies of neighboring jurisdictions, the municipal facilities were also identified by Watershed in the City JURMP. *There are no changes to report in the municipal facility by watershed classification.*

During this reporting period, staff continued to evaluate the possible types of pollution that could be generated from each municipal facility. The evaluation included the following:

- Type of materials stored or used on site
- Activities conducted on site

- Proximity to conveyance system, or environmentally sensitive areas
- Any additional activities that may affect water quality such as additional storage or new materials kept on-site

Results from the evaluation indicate that most City facilities are a low threat to water quality (as discussed in report Section 2.3). Parking lots, streets and roads, and the Public Works Yard are the highest priority of municipal facilities as they could introduce pollutants into the conveyance system, which would impact water quality.

The City is committed to implementing BMPs that will reduce pollutants from parking lots, streets and roads and the Public Works Yard in particular. The City has installed a BioClean filter in one of the upstream catch basins that lead to the problem Seascape Sur pipe. Also, the Yard is visually inspected weekly and BMPs are maintained and reinforced as needed. In addition, the City utilizes results from its dry-weather-monitoring program to determine if pollutants are entering the system from its municipal facilities.

During this reporting period, the results from the City's 2005 Dry-Weather-Monitoring Program (DRMP) were completed and presented to the City in January 2006. The results indicated a concern at Seascape Sur, which has been an ongoing problem in the City for more than six years (see discussion in Chapter 13, Special Investigations) where elevated levels of bacteria were detected. An investigation into the identification of the pollutant source is ongoing, and the City is looking into alternative ways to address the situation. No municipal facilities were found to be contributing the pollutants.

The City utilized the information from the 2002, 2003, 2004, and 2005 dry-weather-monitoring programs and the criteria established by the Permit (Order 2001-01) to further develop its 2006 Dry-Weather-Monitoring Program. Although the results from the 2006 program were presented to the City after this reporting period (in December 2006), they are noteworthy to include in this report. The City results indicate that the City's municipal facilities are not a likely contributor of pollutants.

2.3 Threat to Water Quality Prioritization

The City utilized the criteria prescribed in Permit Section F.3.a. (3)(a) and (b) to prioritize the facilities based on their potential threat water quality from storm water runoff. In addition, dry-weather monitoring data and previous complaint records were included in the evaluation. As noted in the City's JURMP, results

from the dry-weather monitoring program indicated that there were no illegal discharges or illicit connections associated with existing municipal facilities. However, the City still classified its public parking lots, MS4 system, streets and roads and the Public Works Yard as *high priority* using the criteria of the Permit. As also noted in the JURMP, the City classified the beach at Seascape Sur as a *high priority* because results from the dry-weather monitoring program indicated elevated levels of bacteria (see Chapter 13, Special Investigations).

The Fire Department facility was the only municipal site classified as medium-priority. The City Hall building, the Community Center at La Colonia Park, Tide Beach Park, Fletcher Cove Community Center and the Marine Safety Center facility were classified as low priority primarily due to the activities conducted at those sites.

There are no changes to report in the City's prioritization of its municipal facilities. As stated in the 2003 Annual Report, the results of the 2003 Wet Weather Monitoring Program revealed very high levels of the pesticide Diazinon within the watershed. The City focused its efforts last year on reducing the use of Diazinon within the City and by municipal landscaping contractors through educational activities. The City is happy to report that Diazinon was not found in any of the samples analyzed by the lab for our 2004, 2005 or 2006 dry weather programs. The City can now focus on other pesticides or high priority pollutants in the ongoing effort to improve water quality in the region.

2.4 Pollution Prevention Methods

As described throughout the Municipal Component Section of the JURMP, the City has established pollution prevention methods that focus on municipal operations, including operation and maintenance of its MS4 system with the goal of preventing and reducing pollutants in runoff. The following is a list of some of the methods in place to accomplish this goal:

- Annual Cleaning of the City's entire MS4 system
- Routine street sweeping (schedule is on the City's web site and available upon request)
- Daily trash removal from streets and parks
- Sediment and erosion control methods (application of Visqueen, materials coverage, silt fences, etc.)

- Facility and ground maintenance conducted in a manner that would not contribute pollutants to a conveyance systems and expected to reduce pollutant runoff during storm events
- The use of bio-filter roll(s) as a PPM at municipal facilities
- Maintenance of the MS4 including routine inspections, annual cleaning and proper disposal of captured materials
- Spill response procedures (street and road spills, facility spills)
- Household Hazardous Waste Collection (Note: the City participated in a reciprocal use agreement with the Cities of Vista, Poway and Escondido for use by Solana Beach residents to recycle their household waste materials.) The City also offers a door-to-door program (more on this later in the Report).
- Installation and maintenance of catch basin inlet filter at ongoing problem area directly upstream from beach outfall.
- Annual cleaning of problem bacteria pipe Seascape Sur Outfall which empties out directly onto beach.

In the City's JURMP, the above pollution prevention methods were expanded for implementation at all City's municipal facilities, depending on the type of activities conducted at each facility. To assist in developing appropriate BMPs, the facilities were categorized into the following types:

- Landscape and recreational facilities
- Roads and streets maintenance
- Public buildings
- Public Works Yard
- Parking facilities
- Storm Drain Conveyance System (MS4)

Specific BMPs were then developed for each category type identified and presented in the City's JURMP. For example, BMPs for the Public Works Yard (JURMP, Table 2-7) include:

- Materials storage alterations
- Visual inspections
- Improved operations and maintenance
- Good housekeeping procedures
- Preventative maintenance
- Spill prevention
- Sediment and erosion control

- Employee training
- Vehicle and equipment maintenance operation alterations
- Waste disposal and recycling
- Vehicle equipment and washing
- Storage tanks
- Outside storage

During this reporting period, the City implemented pollution prevention methods (BMPs) for each facility type based on what was presented in the City's JURMP. The BMPs were discussed at citywide staff meetings, handouts were created for general housekeeping for all staff to implement, and municipal facilities were inspected by City staff to ensure the implementation of BMPs was occurring.

2.4.1 Proactive Approach to Pollution Prevention

Because of the City's proximity to the Pacific Ocean, the City has been proactive in its approach to urban runoff and pollutant mitigation and reduction, not only during this reporting period but also prior to the implementation of the JURMP.

Annual Cleaning of Storm Drain System

The City conducts an annual cleaning of its storm drain system – citywide. Public Works Staff visit every catch basin in the City and prioritize each based on the severity of sedimentation and trash build-up. Any catch basin that shows signs of trash or sediment build-up will be cleaned using a Vactor truck. During this reporting period, the City removed four (4) cubic yards of material from the storm drain system (which includes open channels, etc.). Samples of the material, primarily sediment and debris, were submitted to Enviromatrix Analytical Incorporated for testing and found to be non-hazardous and acceptable for disposal in the local landfill. This testing and disposal was completed in May 2006, as part of the new tracking requirements of the Permit.

Pet Waste Bag Dispensers

The City installed Pet Waste Bag Dispensers and actively maintains the dispensers to encourage proper pet waste disposal. The City posted these dispensers and signs along both sides of Sierra Avenue to encourage their use (Sierra Avenue is the street closest to the beach, and runs parallel to Highway 101). The City implemented this BMP in response to results from its dry weather and coastal outfall monitoring, which indicated the presence of fecal bacteria at Seascape Sur. In an effort to educate the community about pet waste, the City included a discussion about its Dog Ordinance (Municipal Code 11.12.020X),

which prohibits dogs in some locations of the City and on some beaches, in its Summer 2001 City newsletter and recreation guide *Shorelines* Vol. 14, No.1). In addition, City staff met with property managers of the condominiums along Sierra Avenue and educated them on storm water regulations and solicited their help in educating their residents.

During this reporting period, the City completed its much anticipated Coastal Rail Trail. This trail runs parallel to Highway 101 the length of the City, and has become a popular walking/jogging spot for not only the residents, but their pets as well. The City required the project to include additional pet waste dispensers, and have found them to be used very frequently. This shows the City's proactive approach to protecting the integrity of the local waterways. This practice of requiring pet waste dispensers at all new public projects will continue as it has been received very well by the community.

As part of the Public Works Department routine tasks, the bag dispensers are now refilled daily. This used to be a weekly task, but during this reporting period Public Works Staff determined that the bags were being used up very quickly and the frequency of replacement needed to be increased. So, PW staff now refills the dispensers daily.

The amount of material that is prevented from entering the City's MS4 system as a result of this PPM is unknown and there is no acceptable method of estimating it, however, the City's Public Works Crew refilled approximately 775 bags per week in this reporting period, up from 625 last reporting period and 550 the year before that. The increase this reporting year is due to the additional two doggie bag dispensers installed at the Coastal Rail Trail. The total amount comes out to approximately 37,800 total bags at a cost of approximately \$1,590 (4.2 cents per bag). Those numbers are up from 30,000 bags and approximately \$1,260 from last reporting period.

Solana Center for Environmental Innovation

The City is proud to be associated with the Solana Center for Environmental Innovation (formerly Solana Recyclers), hereinafter referred to as Solana Center. Due in large part to the efforts of this group, the City was the first city in San Diego County to have a comprehensive *curbside* recycling program. In addition, to help educate the community, the Solana Center routinely writes articles for the City *Shorelines*.

- Fall 2005 edition (Appendix F):
 - The Solana Center wrote an article informing the City's residents of a Residential Compost Bin Sale that the City was co-sponsoring to help promote diversion of trash to landfills.
 - Solana Center also wrote an article on AB 939 and described the City's program and how the residents can assist in reaching 50% diversion.
 - Another article Solana Center contributed is one titled, "Used Oil Recycling & Collection Centers. This article describes the used oil programs Solana Center Provides for the residents of Solana Beach.
 - The last article Solana Center contributed to this issue is an educational piece informing residents to "close the recycling loop in Solana Beach." This article gave useful tips on how residents can go above and beyond the normal curbside recycling mentality to look into buying recycled goods to "close the loop."
- Spring 2006 edition (Appendix G):
 - Solana Center provided an article detailing their environmental education presentations that are available free of charge for interested community organizations and local schools.

The total amount of material recycled throughout the City during this reporting period is unknown at the time of this report (numbers will be available after March 15, 2007). However, the last reporting period ending in 2005 showed the City at a 56% recycling rate, which is on the upper tier of cities in the county and in compliance with the 50% rate required by Assembly Bill 939 (AB939). Additionally, on September 17, 2005, the City hosted its annual beach and lagoon clean-up day and 71 volunteers (up from 63 a year ago) collected over 290 pounds of trash and 136 pounds of recyclable glass and plastic materials that might have otherwise ended up in the landfill or worse, City streets and possibly the City's MS4.

Car Washing

The City is environmentally sensitive and thus adopted an ordinance that

prohibits the runoff from automobile car washing to enter the City's storm drain conveyance system (Municipal Code, Chapter 13.10 Storm Water Management). During this reporting period, the City has aggressively enforced adherence to this ordinance. City staff has issued several citations (written and verbal) to mobile detailers throughout the City if they are conducted business in violation of City regulations. Local businesses have also been educated to prevent mobile car washing/detailing activities on their property or prevent the runoff from leaving their property and entering the City streets or conveyance system.

Hazardous Materials Management Team

The City Fire Department contracts with San Diego County Hazardous Materials Management Division and established an Emergency Response Program to contain hazardous materials that result from automobile accidents, spills, illegal dumping or any other activities within the City of Solana Beach. Generally, the County's Hazardous Materials Team handles recovery and disposal of the materials, although work crews from the City's Public Works Department also contain some small spills and are on call 24 hours a day, 7 days a week to respond to all spills that occur within City limits.

Storm Drain Inventory and Stenciling

The City has inventoried all of its storm drain conveyance structures (inlets and catch basins). The inventory list includes addresses, cross streets and a bit-map. This information was then utilized to implement a program that affixed a stenciled tile at each location that reads, "*No Dumping! This drains to the ocean.*" The City has successfully completed application of the tiles at *each* storm drain inlet or catch basin. In addition, the City now requires all new or re-development projects that install a storm drain curb inlet or catch basin to include the a stenciled tile. The City constantly monitors the catch basins and if a tile is broken or has been removed, another one is immediately installed.

The City also participated with the non-profit group I Love A Clean San Diego (ILACSD) to sponsor an ongoing Tile Stenciling Program in which the City provides volunteers with a GIS map of all catch basins in the City and a box of tiles so they can compass the City and replace any tiles that are damaged or missing. This was a highly successful program/partnership that the City will continue to ensure all catch basins have tiles permanently affixed to them.

Street Sweeping

The City already had a comprehensive street sweeping program prior to the

Permit and the implementation of the JURMP. The residential streets are swept once each month, while major arterial streets are swept once each week. In response to the comments received from the RWQCB on the FY 02/03 annual report, the City developed a form to characterize and measure the amount of material collected by the street sweeper (Appendix A). The driver of the street sweeper completes the form after every trip and it is verified by the appropriate Public Works employee.

During this reporting period, the City had major problems with its contracted street sweeping company. The contractor was not performing up to contract specifications, and the City was having a difficult time getting the proper reports from the drivers. A contractual battle ensued and documentation was not submitted. The City eventually relieved the street sweeping company of their duties and selected another contractor. However, the report documents were never completely submitted, therefore, the records of debris collected only cover half the year (July 1, 2005 to December 31, 2006). The total amount collected during that time period was 299.1 cubic yards.

To demonstrate the City's commitment to documenting the amount of debris collected by the street sweeper, and to ensure that all activities were conducted in compliance with the storm water regulations, the City included specific language in its new street sweeping contract. This language will be used in every subsequent street sweeping contract to ensure all contractors are adhering to all storm water regulations, which was a comment made by the RWQCB in its JURMP Annual Report Review.

Spill Prevention

The City's Public Works Department maintains on-site at the Public Works Yard, a 55-gallon drum and specially equipped vacuum to handle small hazardous materials spills. The drum and vacuum are small enough to travel with the work crews and have been utilized to contain oil from an automobile accident, spillage of work-related materials (paint and debris), and collection of minor hazardous materials. In the event the material exceeds the amount that can be collected by the work crews, the City Fire Department initiates its spill response plan (discussed above). Work crews used the new spill-vacuum on several occasions to collect hazardous waste material. However, City work crews do not have the resources to weigh the amount of material collected or to track and document the amount of material collected. Significant spills for which the work crews responded to are discussed in Chapter 8: Illicit Discharges Detection and

Elimination.

Staff Trainings

The City implemented a citywide staff-training program. Each month the City Hall hosts an all-hands meeting, which was determined to be the appropriate location to conduct the storm water training. Employees were educated about the Permit requirements, informed regarding expectations of staff, provided General Housekeeping handouts, facility-specific designated BMPs (from the City's JURMP), and instructed on the use of the Storm Water Hotline (see below). Staff trainings regarding storm water are routinely included in the monthly all-hands meeting when deemed appropriate. Additionally, the storm water team meetings with representatives from most City departments act as a natural training ground as ongoing and new activities and problems are discussed as needed. It is then tasked to each individual to bring up relevant topics to the rest of their department during their weekly staff meetings as appropriate.

During this reporting period, the City's Environmental Specialist updated the Sewer Overflow Response Plan and conducted an educational workshop with all Public Works employees on 8/17/2005. The workshop was to reinforce the correct sewer overflow response plan with the PW Crew to ensure the proper measures were performed in case of a sewer spill that may occur after hours. Currently, the Environmental Specialist is in control of the proper containment, re-capture, clean-up and reporting whenever a spill occurs. However, many times the spill will occur after hours, when the PW Crew is the first to respond. This training was conducted to ensure all proper practices were reviewed as well as reinforcing storm water issues they should be aware of.

The City anticipates that the new Permit should be adopted sometime in early 2007. When the new Permit is adopted, the City anticipates another series of staff trainings to discuss the new aspects of the Permit and how each one relates to different departments within the City. This will also serve as an opportunity to review and refresh City staff responsibilities as they pertain to elements in the existing Permit adopted in 2001.

Storm water Hotline

To assist the public in directing their calls for complaints and service, the City maintains and responds to a storm water hotline 24-hour telephone recording (858) 720-2400 ext. 2512. When the number was first established, it was checked twice each day. However, to facilitate a quicker, more effective

response time, the City now links all calls to the direct extension of the City's Environmental Specialist. Therefore, all calls that are made to the City regarding storm water issues will be handled immediately. This has been proven very successful, as the issues are addressed immediately. This leads to much quicker responses, which result in more efficient spill response and enforcement actions. The City informs the public about the hotline number at City Council meetings, on flyers and handouts at workshops, on business cards, on educational materials and during inspections.

Materials Storage

Although only minor quantities of hazardous materials are stored at municipal facilities (as noted in the City's JURMP), the City stores those materials indoors when feasible. Only non-hazardous materials, such as Class 2 gravel, temporary stockpiles of topsoil, etc., are stored outdoors for short periods of time. When this does occur, City Staff ensures all storm water BMPs are installed around the piles and they are covered, if necessary, to ensure nothing leaves the Public Works Yard.

Sediment and Erosion Control

The City Public Works Department augmented the City's supply of Visqueen as a method to reduce or prevent sediment and erosion control. The Visqueen is utilized at the Public Works Yard on the sand and soil that is kept on-site. In addition, the work crews utilize bio-filter rolls to catch runoff. As added insurance, the City's Public Works Supervisor always orders extra erosion control BMPs before the wet season to store on-site for emergency situations. Most of these practices were instituted as a result of suggestions made by the RWQCB during their inspection in August 2002.

Storm Drain Inlet/Catch Basin Insert

The City is currently participating in an ongoing experimental application of a catch basin insert in one of its MS4 curb inlets. The insert is being studied to determine its effect on the elevated levels of bacteria in the inlet. Although early results from the pilot program are inconclusive regarding bacteria, the catch basin filter has been extremely effective in eliminating large quantities of trash and organic matter from the MS4 system. Public Work Crews empty the filter on a scheduled weekly basis and routinely remove about half a trash bag full of debris. Additionally, inspection of the catch basin insert has revealed occasional violations of the adjacent landscapers as a large amount of grass clippings were found in the catch basin. An investigation resulted in a Notice of Violation (NOV)

to the landscaping company and a discussion with the property management company. No additional violations have been reported.

Storm Water Team

To handle the diverse responsibilities of the Permit, the City established a Storm Water Team, which consists of staff members in various departments (see Table 2-2). The City expects that an integrated "Team Approach" will prevent or reduce pollution to a greater extent than having one or two staff members focusing solely on storm water. This has been a huge success for the City because all departments are actively involved in the implementation of the Permit. Since the Permit is so greatly diverse and complex, this team approach has been extremely successful in implementing all aspects of the Permit. This approach has paid huge dividends in the area of staff training, as all employees were required to learn about the issues so that they may implement them into their daily procedures. Additionally, the City was successful in creating a new Environmental Specialist position in May 2003, who now works with the Storm Water Team to ensure that all components of the Permit are being addressed. The Storm Water Team will still be utilized, but the Environmental Specialist is charged with keeping the group informed of new requirements and ensuring the City is in compliance with the Permit.

Table 2-2
Solana Beach Storm Water Team

Position Title	Storm Water Program Assignment
Principal Engineer	Program oversight
Environmental Specialist	Program development, Permit compliance, construction, municipal, industrial and commercial inspections, IC/ID Investigations, monitoring programs (wet, dry, and coastal), SUSMP compliance, staff and community education
Assistant Planner	Building plan check, information on upcoming projects
Code Enforcement Officers	IC/ID investigations, complaint investigation, Enforcement actions
Public Works Crew	Municipal facility maintenance, complaint investigation, infrastructure maintenance
City Inspector	Construction inspections
Associate Engineer	Grading plan checks, BMP selection and approval, SUSMP compliance, Erosion control plans
Engineering Technician	BMP plan check, education of public at City Hall counter

2.4.2 New Municipal Pollution Prevention Methods

Smoking Ban on Public Beaches and Parks

During a previous reporting period (December 2003), the City of Solana Beach jumped to the forefront of pollution prevention, on a nation-wide scale. The City was the first city in the nation to ban smoking at its public beaches and parks. The ordinance (Ordinance 316, see Appendix B) bans smoking at all public beaches and parks, and is actively enforced by the Marine Safety Department and Code Enforcement Department. The public has been very responsive to this ordinance, and the City has had many requests from other jurisdictions, as far away as Australia. The City appears to be a trend setter, as the City of Los Angeles and other Orange County cities are following suit with their own ordinances in the works. More locally, the City of Del Mar and San Diego have followed with their own ordinances and other cities such as Oceanside are investigating the possibility. This is a significant pollution prevention action the City has undertaken, as cigarette butts are routinely found as the most abundant type of debris collected in beach clean-ups. The impact on the local beaches will be extremely beneficial, and the City is proud to be the trend setter in another environmental arena (the City was the first jurisdiction in San Diego County to provide curbside recycling).

Recycling/Trash Containers

One of the priorities of the Environmental Specialist was to improve the recycling program throughout the City. When the Environmental Specialist took over, there were no public recycling receptacles located anywhere in the City. If someone wanted to recycle, they would have to do so at home, but since this is a popular tourist location, it seemed necessary to provide recycling opportunities in high traffic areas. It's well known that people will recycle if it's made convenient and efficient for them, but since there were no opportunities available, it can only be assumed that everything was being discarded into the trash, or worse, finding its way into the storm drain system. This was a high priority for the Environmental Specialist, but initially the money was not there to purchase any new receptacles.

However, during a previous reporting period (December 2004), the opportunity presented itself when the City received its Department of Conservation (DOC) monies to be used toward the City's environmental program. In the past, this money was used to purchase picnic benches and tables made from recycled plastic. The Environmental Specialist managed to redirect this money into

purchasing four new trash cans that have a separate container for recyclables. The new receptacles were placed at Fletcher Cove, two bus stops and at the community center. They have been very well received by the public and are very effective in separating recyclables from trash. The City has been so impressed with the results that the next round of DOC money is already earmarked for more of these receptacles and more money is being sought to purchase as many as possible to be placed throughout the City.

During the last reporting period, the DOC funds were approved to be used on additional recycling containers. The Environmental Specialist met with a Councilmember to come up with a recycling “masterplan” to help prioritize the City’s recycling needs. It was agreed upon that the City needed a multi-use, source separated recycling center at City Hall for the lobby and for use at City Council Meetings. Additionally, the City needed to place recycling containers along the recently completed Coastal Rail Trail.

These items have been purchased and will be installed in early 2007. Five dual recycling/trash containers were purchased for the Coastal Rail Trail and the local beach accesses and one multi-use recycling center for City Hall. When more DOC funds are available than Phase II of the recycling masterplan will be implemented, which include additional recycling/trash cans in public areas and a more complex/effective recycling program for City facilities.

Ensuring Implementation

To ensure that the PPMs are implemented, City staff meets periodically with all Department Directors to review the BMPs, Permit requirements and program expectations. Department Directors are responsible for ensuring that their staff carries out the BMPs for their facilities. The City Engineer meets every Wednesday with the Public Works Supervisor and his crew, the Environmental Specialist, and the City Inspector at the Public Works Yard for safety meetings. It was decided that at these meetings, storm water issues, including BMPs, should be discussed and the Yard will be inspected to ensure compliance. The Environmental Specialist will also conduct random compliance inspections. During this reporting period, there were no violations observed at the City’s municipal facilities and all appropriate BMPs were being properly installed and maintained.

2.5 Pollution Prevention Strategy Effectiveness

One of the issues that the City faces is developing an appropriate process to determine the effectiveness of the pollution prevention methods and strategies, (BMPs). The City is committed to developing a consistent approach that could be agreed upon by all Copermittees. It is important to collect data and analyze results in a consistent manner – county/region wide – in order to be able to share results and draw conclusions across agencies, particularly given that water is not restricted by jurisdictional boundaries.

To address this issue, the Copermittees met several times in the Fall of 2002 and in 2003 to work out a more appropriate strategy. A guidance document was prepared by the Copermittees and submitted to the RWQCB on October 16, 2003, titled “*A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs*”. This guideline presents a comprehensive assessment strategy that initially focuses on programmatic assessments and moves toward water quality-based assessments to determine program effectiveness. More specifically, it addresses six levels of assessment:

- Compliance with Activity-based Permit Requirements
- Changes in Knowledge/Awareness
- Behavioral Changes
- Load Reductions
- Changes in Discharge Quality
- Changes in Receiving Water Quality

The City began to phase in this new assessment program during the last reporting period, which is described in more detail in the Effectiveness of JURMP Assessment Component of this report.

2.6 New Activities and Improvements for FY 06/07

The City anticipates continuing the activities of the Municipal Component as specified in the JURMP. The focus will be on continuing the cooperation among different departments through our storm water team approach, ensuring municipal facilities are in compliance with the Permit, and collaborating with other

Copermittees. The City Department Directors were required to integrate more responsibilities into positions in order to implement the Watershed Urban Runoff Management Program (WURMP) and Standard Urban Storm Water Mitigation Plan (SUSMP). Because of our team approach, this transition occurred rather seamlessly. The Planning Department and Engineering Department worked closely together in implementing the new SUSMP requirements. Also, with the addition of the Environmental Specialist position, the program now has a full time person to concentrate on directing and expanding the City's storm water program.

As mentioned previously in this Chapter, it is anticipated that the new Storm Water Permit will be adopted in early 2007. This will undoubtedly contain new elements that will require additional/modified requirements/duties of different Departments within the City. Additional staff trainings will be required to ensure that all Staff activities will be in compliance with the new Permit and some job duties will have to be altered. Since the new Permit has not been adopted at the time of writing of this Report, more information on these activities will be available in next year's Annual Report. These changes will have to be implemented on the fly, and will require all Departments within the City to work collaboratively to accomplish the goals within the new Permit. The City is confident that the infrastructure of the City as a whole will allow for a relatively seamless transition to the requirements of the new Permit.

2.7 Summary

The City has been successful at implementing the Municipal Component of the JURMP, establishing BMPs for its municipal facilities and providing informative and meaningful staff trainings. The City made significant advancements in the manner in which its storm water program is integrated into the routine tasks of various staff and has developed an effective interdepartmental Storm Water Team. The Environmental Specialist position has greatly enhanced the coordination and implementation of the Permit, as well as other environmental programs (solid waste, HHW, etc.) Highlights of the accomplishments of the City's Municipal Program Component include:

- Implementation of two comprehensive WURMPs
- Creation of an effective inspection process
- Implementing storm water issues and inspections of Public Works Yard at weekly safety meetings between the City Engineer and Public Works Supervisor and crew

- Annual cleaning of the City's storm drains resulting in four cubic yards of debris diverted from receiving water bodies
- Implementation of street sweeping tracking form that now allows the City to evaluate the effectiveness of the street sweeping program.
- Provision of public pet waste bag dispensers (approximately 37,800 bags were utilized by the community during this year at a total cost of \$1,590)
- Complete training for all staff regarding general BMPs and specific department-related BMPs
- Continuation of the Storm Water Team integrating staff from various departments, bringing a diverse "team approach" to the program
- Addition of new trash/recycling receptacles in high traffic area of City to promote recycling and prevent trash from entering storm drain system
- Enforcement of Smoking Ban on Public Beaches and Parks Ordinance which has significantly reduced amount of pollution on local beaches and parks.
- Implementation of weekly task for Public Works Crew to self inspect the Public Works Yard
- Implemented scheduled cleaning of Fletcher Cove Low Flow Diverter
- Maintenance of Biofilter at La Colonia Community Center

CHAPTER 3

Industrial Component

CHAPTER 3: INDUSTRIAL COMPONENT (EXISTING DEVELOPMENT)

In accordance with Permit Section F.3.b, this section of the report describes the City's efforts to prevent or reduce contaminants in urban runoff originating from existing industrial facilities. In compliance with the Permit, the City evaluated businesses within the City and categorized them as commercial or industrial, as noted in JURMP sections 3.0 (Industrial) and 4.0 (Commercial).

In each Annual Report to the RWQCB, this section will include modifications to the City's inventory of industrial facilities, pollutant source identification and potential threats to water quality. In addition, this section of each Annual Report will include results from the City's efforts to implement and enforce BMPs at industrial sites, related accomplishments and activities. Also, a summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or permit compliance.

During the last reporting period (July 1 2005 to June 30, 2006), the City conducted an evaluation of the industrial facilities doing business within the City. Facilities were identified as industrial sites based on criterion required by the Permit, which included activities conducted on site, SIC codes and also included a site visit. The City prepared an inventory of the industrial sites in order to understand potential sources of pollution, threats to water quality, and to develop a plan to mitigate or eliminate urban runoff and pollution from the facilities by implementing Best Management Practices (BMPs). The City reviewed the list from last reporting period and visited all existing and potential new sites to determine if there would be any changes or additions to the inventory.

3.1 Inventory of Industrial Facilities

There is currently one industrial site operating within the City (Baker Iron Works). Table 3-1 presents the City's industrial facility, including its prioritization level. *There is no change in the City's inventory of industrial sites from those submitted in last year's Annual Report. The City's other industrial site, submitted to the RWQCB in the City's original JURMP (February 21, 2002), (Blalock Cabinet Shop) is no longer in business in Solana Beach. It relocated to the City of Vista.*

Table 3-1
Existing Industrial Facilities

Facility Name	Facility Address	Narrative Description	SIC Code	Priority
Baker Iron Works	710 Valley Ave	Iron works / metal fabrication	3441	High

3.2 Pollutant Source Identification

To assist the City in identifying potential sources of pollutants in its receiving water bodies, and/or the receiving water bodies of neighboring jurisdictions, City staff evaluated the possible types of pollution that could be generated from each industrial facility. The evaluation included the following:

- Type of materials stored or used on site
- Activities conducted on site
- Proximity to conveyance system, or environmentally sensitive areas
- Watershed location

Results from the evaluation concluded that the City's only industrial facility could be a potential source of pollutants (Baker Iron Works),

The conclusion that Baker Iron Works could be a potential source of pollutant discharge was due to the fact that the facility generally uses metal materials in the fabrication of structural devices; most of their work is performed outdoors, which is exposed to storm water, and runoff from the property is likely to enter the City's conveyance system. However, the City has worked closely with Baker Iron Works to minimize the potential for pollutants to run off their property and into the City's MS4 system. Baker Iron Works has been more than willing to work with the City to ensure compliance with the Permit, and has completed numerous tasks suggested by the City. These include:

- Permanently covering all stock piles of metal materials kept outside to shield it from rain events.
- Cleaning of yard as needed but no less than weekly with a magnetic device to pick up all loose metal shavings.
- Moving all chemicals indoors to ensure that they will not run off the property and into the City's MS4 system.

- Training all staff on proper storm water BMPs and general housekeeping for all activities that may impact the City's MS4 system.
- Installation of low flow sump/well structure at the northwest corner of the facility to handle all low flows from the entire facility. The low flows will enter a small drain that extends across the driveway and enters into a small infiltration well structure to prevent the water from entering the MS4. This structure has worked very well in eliminating all low flows from leaving the site. Baker Iron Works employees routinely monitor and maintain the infiltration well to ensure proper functionality.

The results of the 2005 dry weather program indicate that no related pollutants were found downstream from this industrial facility. This is consistent with the 2001, 2002, 2003 and 2004 dry-weather-monitoring program results which also indicated that no related pollutants were found downstream from this facility. The City will continue to inspect and monitor these locations in the future to further ensure that they are not contributing to downstream pollution. In addition, Baker Iron Works has agreed to forward all results from their required water quality monitoring under the Statewide General Industrial Permit to City staff for review during rain events.

The City utilized the information from the 2005 dry-weather-monitoring program, the criteria established by the Permit, and the evaluation of the potential sources of pollutants (discussed in this chapter and Chapter 3 of the City's JURMP) to develop its 2006 dry-weather-monitoring program. Similar to last year, one site downstream and one site upstream from Baker Iron were selected for testing. Although the results from the 2006 program were obtained by the City post this reporting period (in December 2006), it is important to note that no significant pollutants of concern were found downstream from Baker Iron Works. However, the City will continue to monitor runoff downstream from that facility over the next few years.

3.3 Threat to Water Quality Prioritization

In the City's JURMP, the industrial sites were classified as a high, medium or low priority, based on their potential threat to water quality from storm water runoff. The classification utilized criteria prescribed in Permit Section F.3.a.(3)(a), (b).

There are no changes to report in the City's classification of its industrial facilities from last year's Annual Report. Baker Iron Works is still classified as a high priority industrial site.

3.4 Pollution Prevention Methods

The City realized that since Baker Iron Works is the only high priority industrial site in the City, it would be prudent and feasible to monitor their site frequently. Although the Permit requires only annual inspections, the City decided to dedicate more time to ensure that the site was always in compliance.

The City routinely stops by Baker Iron Works to visually inspect the property and discuss storm water regulations with management and employees. Additionally, City staff always visits the site before the wet season and during rain events to monitor the site for any runoff that may enter the City's MS4 system.

As reported in last year's Annual Report, this facility was attempting to come into coverage under the statewide General Industrial Storm Water Permit (GISW),. The reason they were not already covered was because of a major fire in the office of this facility during the reporting period, and all the documents were lost. However, the City has confirmed that Baker Iron Works is *now fully compliant* with the state GISW and is currently adhering to all requirements.

To enhance understanding of whether or not runoff from Baker Iron Works contributes pollutants into the MS4, the City specifically includes one upstream location and one downstream site in its Dry-Weather-Monitoring Program (DWMP) and tests for metals and other pollutants required by the Permit and/or agreed upon by the Copermittees Monitoring Subcommittee. The results from this year's DWMP indicated that directly downstream (upstream was dry) from Baker Iron Works, no significant pollutants were found which would trigger a source investigation. Monitoring of these sites will continue in future dry-weather monitoring programs to ensure that this site is not contributing pollutants to our waterways.

Additionally, Baker Iron Works employees use a large magnet to clean their entire yard as often as needed but no less than once per week. This magnet is very effective in cleaning up small steel waste products that result from daily activities. The parking lot is swept and water is never used. All chemicals are kept in a locked storage shed that has secondary containment and is kept above ground, which was a recommendation of RWQCB staff.

3.5 New Activities and Improvements for FY 06/07

City staff will continue to work closely with the proprietors of Baker Iron Works to 1) ensure functionality and maintenance of the filtration device, 2) ensure compliance with the City's storm water regulations and 3) educate the business owners and employees about the importance of protecting the community's water resources.

During FY 06/07, the City will continue to inspect Baker Iron Works, using the City's Storm Water Compliance Checklist (Appendix C) as often as necessary to ensure total compliance to the Permit. The City will also continue to visually inspect the facility at least once a month, and always before the wet season and during rain events. If the City observes a non-compliant facility, the City will inform its appropriate representative at the RWQCB.

The City will also continue to include at least one site upstream and downstream from the facility in its dry monitoring program.

3.6 Summary

The City has been effective at working with owners of the one industrial site to ensure compliance with Permit and City regulations. The owners have installed and properly maintained the filtration system at the northwest corner of the property to collect and filtrate all on-site low flow runoff before it enters the MS4 system. The City has established a great working relationship with the owners/operators of the site and they have made drastic strides to maintain compliance. City Staff will continue to monitor and inspect the facility frequently to ensure compliance with the Permit. Baker Iron Works have been very responsive and immediately remedy any problems encountered during inspections. They have gone above and beyond what is required to ensure they are in compliance with the Permit.

CHAPTER 4

Commercial Component

CHAPTER 4: COMMERCIAL COMPONENT (EXISTING DEVELOPMENT)

In accordance with Permit Section F.3.c, this section of the report describes the City's efforts to prevent or reduce pollutants in runoff from existing commercial properties.

In each Annual Report to the RWQCB, this section will include modifications to the City's inventory of commercial facilities, pollutant source identification and potential threats to water quality. In addition, this section of each Annual Report will include results from the City's efforts to implement BMPs at commercial sites, significant program accomplishments and activities. Also, a summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or permit compliance.

During this reporting period, the City continued inspections of the medium to low priority sites. As discussed in last year's Annual Report, inspections during this reporting period were meant to be more compliance related, with follow-up activities based upon the initial educational inspections initially conducted in FY 03/04.

4.1 Inventory of Commercial Facilities

As a result of the compliance inspections, the City's inventory of commercial facilities that were inspected *had no changes*. The City's Environmental Specialist visited selected locations based on higher priorities such as restaurants, automotive servicing, repair and fueling, and golf courses but did not have to make any changes to the list shown on Table 4-1. The City will continue to update the inventory list as new businesses apply for permits or site inspections reveal changes.

Table 4-1**Changes to High Priority Commercial Facilities**

Category	Address	303(D)	Discharges Pollutant Of Concern?
Automobile Servicing And Repair	136 N Cedros Ave	Ocean	No
	371 N Highway 101	Ocean	No
	421 N Hwy 101	Ocean	No
	126 N Cedros Ave	Ocean	No

Category	Address	303(D)	Discharges Pollutant Of Concern?
	637 Valley Avenue E	San Dieguito	No
	201 S Hwy 101	Ocean	No
	146 N Cedros Ave	Ocean	No
	301 N Hwy 101	Ocean	No
Automobile/Vehicle Washing	435 N. Highway 101	Ocean	No
	615 S Hwy 101	Ocean	No
Retail Or Wholesale Fueling	660 Via De La Valle	San Dieguito	Yes
	705 Lomas Santa Fe	San Dieguito	Yes
Eating And Drinking Establishments	731 S. Highway 101 #1-B	Ocean	Yes
	905 Lomas Santa Fe Dr	San Dieguito	Yes
	159 S Hwy 101	Ocean	Yes
	524 Stevens Ave 11	San Dieguito	Yes
	667 San Rodolfo Dr 133	San Dieguito	Yes
	437 S Hwy 101 601	Ocean	Yes
	106 Solana Hills Drive South	San Dieguito	Yes
	124 Lomas Santa Fe Dr 108	San Dieguito	Yes
	437 S Hwy 101 118	Ocean	Yes
	512 Via De La Valle 102	San Dieguito	Yes
	650 Valley Avenue	San Dieguito	Yes
	607 Valley Avenue	San Dieguito	Yes
	640 Via De La Valle	San Dieguito	Yes
	166 Solana Hills Dr South	San Dieguito	Yes
	150 S Acacia Ave	Ocean	Yes
	243 Highway 101 North 8	Ocean	Yes
	280 Lomas Santa Fe Drive	San Dieguito	Yes
	145 S Hwy 101	Ocean	Yes
	647 South Highway 101	Ocean	Yes
	315 S Hwy 101 #A	Ocean	Yes
	437 S Hwy 101 112	Ocean	Yes
	514 Via De La Valle 100	San Dieguito	Yes
	937 Lomas Santa Fe D Out of business	San Dieguito	Yes
	117 West Plaza	Ocean	Yes
	106 S Sierra Ave	Ocean	Yes
	945 Lomas Santa Fe Dr	San Dieguito	Yes
	135 Highway 101 North	Ocean	Yes
	689 Lomas Santa Fe D	San Dieguito	Yes
	524 Stevens Avenue	San Dieguito	Yes
	731 S Hwy 101 #1-A	Ocean	Yes
	550 Via De La Valle	San Dieguito	Yes
	445 N Hwy 101	Ocean	Yes
	126 S Solana Hills Dr	San Dieguito	Yes
	437 Highway 101 South #117	Ocean	Yes
	141 Lomas Santa Fe	San Dieguito	Yes

Category	Address	303(D)	Discharges Pollutant Of Concern?
	979 Lomas Santa Fe Drive	San Dieguito	Yes
	124 Lomas Santa Fe Dr #102	San Dieguito	Yes
	124 Lomas Santa Fe Drive 105	San Dieguito	Yes
	691 Lomas Santa Fe	San Dieguito	Yes
	125 N Hwy 101	Ocean	Yes
	124 Lomas Santa Fe Drive 101	Ocean	Yes
	123 W Plaza St	Ocean	Yes
	689 Lomas Santa Fe #A	San Dieguito	Yes
	315 S Hwy 101 D	Ocean	Yes
	315 S Hwy 101 # G	Ocean	Yes
	221 N Hwy 101	Ocean	Yes
	691 Lomas Santa Fe Drive A	San Dieguito	Yes
	621 Valley Ave	San Dieguito	Yes
	665 San Rodolfo Drive 123	San Dieguito	Yes
	271 N Highway 101	Ocean	Yes
	143 S. Cedros # V	Ocean	Yes
	132 S Cedros Ave	Ocean	Yes
	524 Stevens Ave #1	Ocean	Yes
	437 S Hwy 101 #501	Ocean	Yes
	124 Lomas Santa Fe #209	Ocean	Yes
	911 Lomas Santa Fe	Ocean	Yes
Cement Mixing Or Cutting	659 Marsolan Ave *	Ocean	Yes
Mobil Carpet, Drape, Or Upholstery	214 S. Nardo *	Ocean	No
Landscaping	618 Sonrisa St *	San Dieguito	Yes
	339 Barbara Avenue *	Carlsbad	Yes
	906 Santa Florencia *	Carlsbad	Yes
	426 N. Cedros Ave	Ocean	No
	301 Santa Helena *	Carlsbad	Yes
	944 Santa Estella *	Carlsbad	Yes
Nurseries	355 N Hwy 101	Ocean	No
	330 S Cedros Ave	Ocean	No
	170 Nardo Avenue *	Ocean	Yes
Golf Courses	1500 Lomas Santa Fe Dr	San Dieguito	Yes
	1580 Sun Valley Road	Carlsbad	Yes

* Denotes "residence."

The commercial property inventory was utilized to identify potential sources of pollution, prioritize the businesses and to develop an inspection frequency program, as noted in the City's JURMP.

4.2 Pollutant Source Identification

Eight percent (8%) of the City's 2,211 total drainage acres (roughly 177 acres) are zoned for commercial use. Some of the areas within the City zoned for commercial use drain to environmentally sensitive water bodies and 303(d) listed waters (impaired water bodies), as noted in the City's JURMP. Some of the 303(d) listed water bodies have been identified as having *constituents of concern* (COC) or pollutants that are of particular concern to those water bodies. Table 4-2 identifies the 303(d) water bodies and COCs that are impacted by drainage from the City of Solana Beach. There is *one change* to report in the City's source identification of pollution. Based on water quality data analysis of the past few years, Diazinon has been removed from the San Elijo Lagoon COC list.

Table 4-2

303(d) Water Bodies and COCs

303(d) Water Body	Constituent(s) of Concern
San Elijo Lagoon and Ecological Reserve	Coliform, sediment, nutrients
San Dieguito Lagoon (and its tributary, Stevens Creek)	Coliform, TDS
Pacific Ocean	Coliform

Using the inventory list, businesses were classified by types of activities conducted on the property in order to identify potential sources of pollution in accordance with Permit section F.3.c.(2). The Permit specified 25 possible high-priority businesses for each Copermittee. Upon review of the City's business license inventory, the high priority business categories applicable to the City of Solana Beach include automobile servicing and repair; automobile/vehicle washing; retail or wholesale fueling; pest control services; eating and drinking establishments; mobile carpet, drape, or upholstery cleaning; cement mixing or cutting; landscaping; nurseries; and golf courses.

Potential pollutants for each of the eleven (10) categories identified above include, but are not limited to the following.

- Automobile servicing and repair facilities have the potential to generate pollutants such as heavy metals (Cu, Zn, Cr, Ni, Pb), oil, grease, engine and transmission fluids, antifreeze, brake fluids, suspended solids, phosphates, litter, organic debris, fluids, sediments, paint, solvents, paint chips/dust, sand and broken glass.
- Automobile/vehicle washing facilities have the potential to generate pollutants such as suspended solid(s), pH, oil, grease, phosphates, heavy metals, detergents, engine and transmission fluids, litter, organic debris, fluids, sediments, paint, solvents, paint chips/dust and sand.
- Retail or wholesale fueling facilities (gas stations) have the potential to generate pollutants such as detergents, oil, grease, engine fluids, suspended solids, phosphates, litter, organic debris, fluids and sediments.
- Pest control services have the potential to generate pollutants such as harmful chemicals, pesticides, fertilizers, herbicides, nitrogen salts, and phosphorus and in particular, the chemical "Diazinon."
- Eating and drinking establishments have the potential to generate pollutants that occur due to improper waste disposal of oil and grease, improper application of pesticides, litter along sidewalks and parking lots, and sediments from equipment cleaning.
- Mobile carpet, drape, or upholstery cleaning businesses have the potential to generate pollutants such as BOD, COD, suspended solids, organic matter, cleaning solutions, animal-related wastes, litter and organic debris along sidewalks and parking lots.
- Cement mixing or cutting facilities have the potential to generate pollutants such as suspended solids, oil and grease, heavy metals, hydrocarbons, solvents, and metals
- Landscaping and maintenance activities have the potential to generate pollutants such as sediments, oil, grease, organic matter, fertilizers, herbicides, pesticides, nitrogen salts, nitrogen and phosphorus.
- Nursery (greenhouse) facilities have the potential to generate pollutants such as sediments, fertilizers, herbicides, pesticides, suspended solids (roof coating), nitrogen salts, phosphorus, oil, grease and organic matter.
- Golf courses conduct activities that may produce pollutants associated with landscaping and maintenance activities including litter, BOD, COD, sediment, bacteria/viruses, oil/grease, heavy metals, manure, pesticides, fertilizers and detergents.

4.2.1 2005-Dry Weather Monitoring Results

Results from the 2005 dry-weather monitoring program were collected and analyzed by the City in January 2006 (but are already outdated at the time of this report). The 2005 program utilized the criteria established by the Permit (and the

Copermittee Monitoring subcommittee). The City reviewed the results from the 2005 dry-weather monitoring program looking for the pollutants listed above, and in particular, COCs described in Table 4-1. The results indicated that the bacterial levels at Seascape Sur outfall (which drains to the Pacific Ocean) and upstream site location(s) continued to exceed the action levels established in the Permit and the IC/ID investigation continued (see Chapter 13).

The City continues the non-point source investigation (See Chapter 13), and utilized the results to help design its 2006 dry-weather monitoring program. Although the results from the 2006 monitoring program will be presented to the City after the writing of this report, preliminary results did not indicate any exceeded levels of COCs or the pollutants listed above, except the bacteria levels at Seascape Sur, which is described in Chapter 13.

4.3 Threat to Water Quality Prioritization

The inventory of businesses for the City included identifying those that potentially posed a high threat to water quality as set forth in the Permit section F. 3.c.(2). As noted above, the City also categorized its businesses by the potential to generate the pollutants described. A detailed inventory of the high priority commercial businesses was provided in the JURMP, Table 4-1.

As shown on Table 4-3, the City has identified 88 commercial sites as high priority. *There are no changes to report in the prioritization of types of commercial businesses within the City, from the JURMP Annual Report submitted in January 2006.* Site inspections at all locations listed in Table 4-1 revealed no changes in the City's inventory.

However, it is important to note, many commercial businesses change very frequently, especially restaurant facilities. Of the facilities inspected during this reporting period, there are no changes to report. The City will make inventory adjustments as inspections reveal changes are necessary. This is an ongoing procedure that will continue into further reporting periods. So, although the inventory was accurate at the time of writing this report, it may be different next time inspections are conducted.

Table 4-3**High Priority Commercial Facilities by Type of Business**

Type of Business	Number
Automobile servicing and repair	8
Automobile/vehicle washing	2
Cement mixing or cutting	2
Eating and drinking establishments	60
Golf courses	2
Landscaping	8
Mobile carpet, drape, or upholstery cleaning	1
Nurseries	3
Retail or wholesale fueling	2
Total	88

As noted in the City's JURMP, minimum BMPs were established for each type of business. The City indicated in the JURMP that it planned to create a "Clean Business Program (JURMP, page 4-19). The City has decided to join with the County of San Diego's Green Business Program. The City feels that this would be the most effective approach to satisfying this obligation. The Green Business Program is currently up and running with self-certification checklists that are available for local businesses upon request.

4.3.1 Business Community Education Campaign

City staff has implemented an aggressive education campaign for the business community. As stated in the previous Annual Report, education is conducted during the annual storm water inspections. The City, along with the North County Storm Water Program (the cities of Carlsbad, Del Mar, Encinitas, Escondido, Oceanside, Solana Beach, San Marcos, and Vista) developed two commercial BMP posters. The first is aimed toward automobile repair shops and the second toward restaurants. These posters are distributed by the City's Environmental Specialist during inspections. The business owners are required to place the posters in a noticeable location for all employees to see. On subsequent follow-up inspections, the Environmental Specialist checks to see if they comply.

Additional educational/training tools developed to be distributed to the local businesses are the "Green Wrench Guide" and the "What's Cookin' Guide" developed by the Regional Outreach Workgroup. These guides are also

distributed during site inspections as an extra training tool to help these businesses come into compliance. These guides have a couple pages in the back for employee to sign after they read the material to show educational compliance.

The City believes that distributing these educational tools directly to the businesses during inspections will have the greatest impact. Not only will we have their undivided attention, but we can also guarantee delivery and track who has received the informational guides. Therefore, when it comes to compliance issues, we can easily determine who has and has not been informed of the regulations. These education tools will be discussed further in the Educational Component of this Annual Report.

By the time this inspection program was fully implemented, Code Enforcement Officers found that a majority of business owners were “aware” or had some “basic knowledge” of storm water requirements. City staff believes this is due in large part to the education campaign aimed at business owners. Although the jurisdictional business workshops have been postponed temporarily due to lack of attendance, the City understands the importance of these activities. Therefore, if the demand increases in the business community or if modifications of the Permit regulations or City regulations occur, the City is committed to resuming the business workshops.

The City does, however, collaborate with other jurisdictions in its respective watersheds to coordinate regional workshops. These workshops are designed to target specific businesses based on their potential pollutant discharges and are discussed more in the WURMP Annual Reports. The City believes that these regional workshops are much more beneficial to the business community as well as the participating jurisdictions, as resources are more readily available from multiple cities than from individual jurisdictions.

4.4 Pollution Prevention Methods

4.4.1 Proactive Approach to Pollution Prevention / Commercial Property

Because of the City’s proximity to the Pacific Ocean, the City has been proactive in its approach to reducing urban runoff, not only during this reporting period, but prior to the implementation of this Permit as well. For example, prior to the implementation of the JURMP, the City had several pollution prevention methods (PPMs) in place for commercial properties, which continues during this reporting

period and included, but were not limited to:

- Prohibition of all non-storm water discharges to the City's storm water conveyance system (SBMC 13.10.060).
- Measures to reduce pollutants to the maximum extent practicable (MEP) were required of business owners (SBMC §13.10.090).
- Persons owning or operating a parking lot (or impervious surface) were *required* to "clean those structure thoroughly as is necessary to prevent the discharge of pollutants to the City of Solana Beach storm water conveyance system to the maximum extent practicable, but not less than once prior to each wet season" (SBMC 13.10.090).
- The City maintained by municipal code the authority to inspect business properties for compliance with the provisions of Solana Beach Municipal Code, Chapter 13 (SBMC 13.10.110).
- Required maintenance of commercial property (trash cans covered, litter removal, etc.) and appropriate waste disposal.
- Routine articles in the citywide community newsletter, *Shorelines* to educate the community about pollution prevention (see Chapter 9).

4.4.2 New Pollution Prevention Methods

In the City's JURMP, the above pollution prevention methods were expanded for commercial facilities, depending on the type of activities conducted at each business. Numerous activity-specific BMPs were also developed for each business type identified. Complete tables describing the BMPs in detail were included and presented in the City's JURMP, which was submitted to the RWQCB on February 21, 2002. *There are **no changes** to report with respect to BMPs designated for existing commercial properties.*

A) Common Commercial Property BMPs

Many of the BMPs provided to commercial property owners/managers were activity-specific to the type of business conducted on-site. However, there are several BMPs common to all commercial properties, which are described below.

- *Employee Training*: The training of employees on proper business practices to prevent or reduce urban runoff is listed as a BMP for all businesses. Knowledge of pollution prevention methods requires instruction from one person to another, particularly as the requirements are new to many employees and given that employees handle the majority of tasks at a commercial business, staff has explained to

proprietors the importance of adequate employee training.

- Good housekeeping pollution prevention BMPs are required of most commercial facilities. Good housekeeping includes the proper disposal of waste materials and proper coverage over waste dispensers, dry sweep outdoor areas, keeping the facility in generally good repair and maintained in good operating condition to prevent deterioration of materials.
- A Spill Response Plan (SRP) is required of most commercial facilities as noted in the JURMP. An effective SRP should prevent on-site hazardous materials from leaving the private commercial property and entering the City's storm drain conveyance system. Commercial property proprietors are being educated about an SRP and are now required during inspections by City staff.
- Minimize Use of Water for Washing / Cleaning: The BMPs associated with a reduction in the use of water for washing and cleaning is suggested for most commercial facilities operating within the City. It has been common practice for many years to use power-washing methods to clean the outside of buildings, windows, and out-door eating areas at restaurants. In addition, it has been common practice by commercial property owners (and their contractors) to hose-down the sidewalks in front of their businesses to collect trash, debris, and landscaping remnants. These types of cleaning procedures use a lot of water and it is likely that the water will run off of the property and into the City streets or storm drain system, bringing with the water a significant amount of pollutants. For that reason, commercial property owners are requested to find new methods of cleaning, reduce the amount of water used, and prevent the runoff from leaving their property.
- Various other activity-specific BMPs are required or suggested to commercial property owners and are listed in the City's JURMP.

B) Other Pollution Prevention Methods Affecting Commercial Properties

Municipal Code and General Plan Amendments

There were *no changes* to the Municipal Code or General Plan Amendments during this reporting period.

Brochures

The City worked collaboratively with other North County cities (see Chapter 9, Education Component) to jointly develop brochures in order to provide a consistent message to the community, and in particular, commercial property owners/managers. The brochures were utilized by the Storm Water Team to inform and educate the community, including commercial facilities. Public works crews, Code Enforcement Officers, Planning and Engineering staff passed out brochures when an educational opportunity presented itself. Staff also visited many businesses and distributed the brochure, “*Only Rain in the Drain*” and spoke to business owners about the need for pollution prevention.

4.4.3 Ensuring Implementation through Commercial Property Inspections

One effective pollution prevention method is to ensure that commercial property owners are implementing the required BMPs (as stated in the JURMP) by inspecting facilities for compliance. To ensure that the BMPs are implemented, the City developed a two-tiered inspection program in 2004. The two-tiered method is different than proposed in the City’s JURMP. The two-tiered method included two inspections (Advisory and Compliance) and was meant to provide another means of educating the high-priority businesses and developing a cooperative working relationship. As previously described in this report, (Section 4.3.1 “*Business Community Education Campaign*”), City staff utilized various methods to educate the business community about new and existing storm water pollution prevention requirements. Most importantly, *all* businesses identified in the JURMP were notified in writing of the required BMPs according to the type of business conducted at their property site.

Prior to Inspection

Code Enforcement Officers developed a schedule to inspect all high priority businesses by the end of 2002 (medium and low priority by the end of 2003) and verified the businesses listed in the City’s JURMP. As previously reported in last year’s Annual Report, several of the businesses that were initially listed as high-priority were actually residential addresses. City staff verified that those businesses with a residential address were not conducting the activities associated with that business on-site (most of these were landscaping businesses that listed the owners home address). In an effort to educate everyone, City staff mailed the appropriate BMP to each address, whether or not the address was in a residential neighborhood.

Advisory Inspections

To measure the business owners' knowledge, in 2002, staff utilized a survey during the Advisory Inspections. The survey was also used as a tool to educate the business owner and/or store manager about what would be expected during a Compliance Inspection. Further, staff used the survey to verify that the business had received the BMP letter; any brochures or visits from other staff and determine how well the community education campaign was working. Staff also informed the business owners/managers about the workshops in which they could learn more about the storm water regulations. City staff also distributed the BMP posters and educational/training guides discussed previously in *Section 4.3.1, Business Community Education Campaign*.

1. By the end of December 2005, staff visited almost all (about 95%) of the high-priority facilities operating within the City. There were a couple of sites that did not respond to a request for inspection or that were closed at time of inspection. City staff visited every site, but a couple places were either closed or could not meet at time of inspection. These sites were documented and were inspected during this reporting period.
2. By the end of June 2006, staff visited *all high priority facilities* operating within the City. The inspection focus during 05/06 was to ensure complete compliance of those types of businesses that have a high potential to discharge pollutants of concern within the City. These businesses include automotive repair shops, gas stations, nurseries, heavy equipment rental shops, golf courses, and restaurants located adjacent to environmentally sensitive areas.

Compliance Inspections

A second inspection was used to determine if the facility is "in compliance" with the storm water regulations, hence, it is called a Compliance Inspection. Staff would schedule a "Date for Compliance" at all sites that required a follow up compliance inspection at the time of the advisory inspection. City staff would then conduct the compliance inspection unannounced after the "Date for Compliance" to ensure that the corrections were being carried out at all times, not just on the date it is required.

All inspections during this reporting period were "Compliance Inspections" because staff determined that the high priority businesses have had adequate time to bring their facilities into compliance since the beginning of this Permit cycle. All high priority sites in the City have remained constant for at least the last

three (3) years, so Advisory Inspections are not warranted. If Staff determined that a new commercial facility has opened in the City, then an Advisory Inspection would be conducted initially. However, all current high priority facilities in the City have remained constant for the last few years (restaurants excluded).

Inspection Procedures

The City has made some minor modifications to its procedures for conducting inspections, from what was reported in the City's JURMP. The procedures, including modifications are briefly described below.

Pre-Inspection: The City had planned to conduct the inspections unannounced so as to properly observe the BMP implementation and effectiveness (City JURMP, Section 4.4). Although most of the advisory inspections were unannounced, City staff was not able to spend adequate time with business owners/managers during the unannounced visit. Therefore, staff now schedules the inspections in advance. The Environmental Specialist has developed a standard form letter notifying the business of the upcoming inspection and giving them an option of setting up an appointment time. This gives the owner the ability to set aside some time to discuss their practices and show the Environmental Specialist around. However, the Environmental Specialist still inspects sites unannounced on occasion to ensure that the proper BMPs are being implemented (especially for high priority facilities). Additionally, if the City receives a call regarding a possible storm water violation, Code Enforcement Officers and/or the Environmental Specialist immediately respond and inspect the facility.

Documentation: The City developed an Inspection form that addressed several issues identified during the Advisory Inspections. First, business owners/managers wanted a copy of the Inspection form. Secondly, the form needed to be comprehensive, but not burdensome. And finally, the form needed to be tailored to commercial property, with a small space for the City's Industrial Sites. The form that the City developed was modeled after the forms used by the City of San Diego and the City of Vista. The form has been reproduced in duplicate so that the business owners receive a copy immediately after the inspection to keep on-site at the facility.

Non-Compliance Citations: Subsequent to the City's submission of its JURMP, the City adopted an administrative fine procedure, which includes storm water violations. Storm water violators may now be fined up to \$1,000 by the City for a significant failure to comply with the regulations, and/or for repeated warnings.

Two fines were issued for storm water violations during this reporting period. The City had moved from the advisory/educational inspection mode of inspection into the compliance inspection mode during this reporting period. The City prefers voluntary compliance but will not hesitate to levy a fine if a site continues to be non-compliant.

The City has discovered that most violations are caused by mobile businesses such as mobile detailers, concrete pumpers, pressure washers, etc., that come into town for a quick job and then immediately leave. These mobile businesses appear to cause most of the violations within the City, maybe because they don't think they will get caught or in rare cases, have no knowledge of the regulations. The majority of permanent Solana Beach business owners are very sympathetic to storm water issues and are more than willing to do what it takes to comply with the Permit.

Post-inspection Processing: Information obtained during inspections was used to update the inventory database (see report section 4.1). It was not necessary to make any referrals or to report any non-compliant sites to the RWQCB.

4.5 Enforcement

To ensure the City Code Enforcement Officers have sufficient legal authority to enforce the new storm water regulations required by the Permit, the Solana Beach City Council revised its Municipal Code Chapter 13, Storm Water Management.

In addition, to facilitate more effective and timely remedies to enforce the Municipal Code, an administrative fine process was adopted by the City Council on June 18, 2002. The administrative fine process allows Code Enforcement Officers to issue administrative citations and penalties in between \$100 and \$1,000 for each day the offense / violation occurs.

However, the Administrative fine process makes provisions for Code Compliance to issue citations for violations of the City's **storm water** ordinance, in the amount of **\$1,000**.

Table 4-4**Administrative Fine Assessments**

Violation¹	Amount
First violation	\$100
Second violation within one year of first ²	\$200
Third violation within one year of first ²	\$500-1,000

¹ Each day a violation exists.

² The second and third violation must be of the same ordinance, term or condition and occur within one year of the first violation.

However, as described in last year's Annual Report, City staff found itself limited by this method of enforcement and developed a new Civil Penalty Matrix (Matrix) that is much more detailed than the previous method (Appendix D). City staff encountered different scenarios in the field that were not addressed in the previous method. The Matrix was patterned after the City of San Diego's Penalty Matrix with a few modifications that were necessary for the City of Solana Beach.

The Matrix proved very successful when it was utilized in the field because it gave City staff a reliable, unbiased approach to resolving violations onsite. Staff did not have to return to the office to consult with each other or their superiors before issuing the proper citation because the Matrix showed them action to take. It proved very difficult in the past to try and track down the violator after the fact to issue the citation. With the Matrix, Staff could issue the citation onsite and have the responsible party sign it to ensure they would pay. This is a much more efficient process than what was in place previously, and the Matrix will continue to be used in the years to come.

4.5.1 Citations

City staff track reports of violations of the Municipal Code on a daily basis. In FY 05/06, Code Enforcement Officers issued 37 NOVs regarding violations of the City's storm water ordinance. Of those 37 NOVs, 2 required a citation along with them. The following table describes the type of violation and the action taken by the City:

Table 4-5 Violations Requiring Citations			
Date	Responsible Party	Violation	Amount
1/17/2006	Guy McKinney	Responsible party (RP) conducting plaster work outside a home. Washed material down storm drain. RP was unresponsive and uncooperative. A sheriff was called and citation issued.	\$1000
4/25/06	Said Godarzi	Concrete contractor not properly containing wash water. Minor discharge into lagoon.	\$200

4.5.2 Multifaceted Approach

The City recognizes that it was able to implement the aforementioned multifaceted approach to educate commercial property owners and conduct two inspections primarily because of the relatively few numbers of high-priority business facilities operating within the City. The City is aware that many other cities have not been able to implement such an aggressive education and enforcement campaign, but the City wishes to acknowledge the other Copermittees for their assistance in developing the program.

4.6 New Activities and Improvements for FY 06/07

The City believes that the inspection activities for commercial sites are working very well, with all the kinks worked out within the last couple of years. There really will not be any new activities regarding the inspection process, although the City is committed to re-inventory every year because businesses do leave and change frequently. The City will continue to actively enforce the storm water regulations with all commercial facilities, with the goal of inspecting every commercial facility annually.

The City will look to improve educational materials for commercial facilities. The City is committed to working with the other North County Cities (as well as the Regional Outreach Workgroup) to collectively put together educational materials with a consistent message. Additionally, the City will work with the respective Watershed Groups to alter inspection forms or processes if a consensus is met within the group. For example, during this reporting period, the Carlsbad

Watershed Group started to look into consolidating the different jurisdictions' inspection forms to create a single, consistent form to be used throughout the watershed. One new addition that was agreed upon by the Carlsbad Watershed Group was the inclusion of two assessment questions at the end of the inspection to gauge the knowledge and/or behaviors of the facility owner/manager. This was included to gain a better understanding of the level of knowledge of the responsible employees and see if their behavior changes over time. Hopefully, this will give the Copermittees a better assessment tool to analyze program strengths and weaknesses.

4.7 Summary

The City has successfully re-inventoried all commercial properties in the City, identified those that pose a threat to water quality, devised a two-tiered inspection method to focus on education of the business owners first and has inspected all high priority businesses at least once. The City has also developed an effective enforcement process and notified all high-priority businesses of required BMPs. For the most part, the businesses in this community have willingly adapted their practices to meet the storm water regulations of the Permit.

The City's proactive approach of patrolling the City daily and stopping at sites where work is being conducted to discuss potential violations before there are discharges has greatly reduced the amount of NOVs and citations issued. The City has discovered that it is much more efficient and worthwhile to put forth the effort to stop a potential violation before it occurs rather than wait and deal with the consequences. So far, this proactive approach has been very successful, as most contractors appreciate City staff working with them, instead of the normal practice of regulating them.

CHAPTER 5

Residential Component

CHAPTER 5: RESIDENTIAL COMPONENT (EXISTING DEVELOPMENT)

In accordance with Permit Section F.3.d, this section of the report describes the City's efforts to prevent or reduce pollutants in runoff from existing residential development. There are *no changes* to this Component in the City's JURMP.

In each Annual Report to the RWQCB, this section will include any proposed modifications to the City's JURMP (Section 5.0, Residential Component) including prioritization of residential areas and pollutant source identification. Results from the City's efforts to implement BMPs will also be included. A summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or permit compliance.

In an effort to reduce pollution from residential neighborhoods and educate the community about the need to reduce urban runoff, the City has participated, during this Permit cycle, with other North County Copermittees and the County of San Diego to administer a telephone survey to measure the current level of community awareness and behavior. This survey was designed to develop a more detailed understanding of the community's awareness, behavior, and knowledge, than the previous base-line survey that was discussed in last annual report. In addition, the City conducted numerous community education discussions, distributed flyers and door-hangers and published articles in the City newsletter. The City also operated a 24-hour hotline for the community to be able to report any suspected violations or contact City staff. The City also conducted its Household Hazardous Waste (HHW) collection and recycling program, which includes door-to-door services.

5.1 Pollution Prevention Methods

Polluted urban runoff in residential areas stem from activities associated with automobile use, maintenance, cleaning, and repair; home and garden care; outdoor pets; outdoor washing activities; landscaping and home maintenance. The pollutants that can be generated by these activities (detergents, heavy metals, grease, oil, herbicides and pesticides) are important to prevent from entering the City's MS4 to the best extent practical

The City continued several pollution prevention methods that reduce, prevent or mitigate the harmful pollutants in urban residential runoff. The City continued its

HHW collection program, operated a 24-hour hotline for reporting violations and passed out flyers and brochures.

5.1.1 Hazardous Waste Collection and Recycling

Under the 1989 California Integrated Waste Management Act (AB939), cities are required to provide Household Hazardous Waste (HHW) collection programs to residents in order to limit the volume of HHW (paint, household cleaners, pesticides, car batteries, automobile waste) that might otherwise find their way into a landfill. For the San Diego County, the HHW program had been funded by a tipping fee until 1997, when the County of San Diego sold the landfill system to private companies.

During the FY 05/06, the City of Solana Beach continued its partnership and the reciprocal/use agreements with the cities of Vista, Poway and Escondido to provide permanent HHW drop-off service to City residents at a cost of \$65 per vehicle. To encourage participation, the cost is picked up by the City of Solana Beach which was utilized by 88 participants this reporting period. Additionally, the City operates a door-to-door program where, for a small co-payment of \$10 per visit, a service will come directly to the resident's house to pick up the Household Hazardous Waste so that residents do not have to drive to Poway, Vista or Escondido. This program was utilized by 205 participants this year (for a total of 293 participants). The City also has a program for senior citizens and those homebound where the door-to-door service is provided free of charge to the resident, with the City paying for the service. These programs are offered to encourage the proper disposal of hazardous wastes to prevent it from entering and polluting our sensitive waterways. The program also includes the disposal of e-wastes, including TVs, computers, VCRs, etc.

The City keeps records of how many people utilized the program throughout the FY05/06. Records indicate that 293 participants utilized this program in FY05/06. In addition, a questionnaire is provided to the participants at the time of disposal to acquire useful information such as how they heard of the program and what types of wastes were disposed. Many respondents listed local programs such as the City's newsletter "*Shorelines*" and educational brochures as the source of their knowledge of this program. Other sources include the two local trash haulers (EDCO and Coast Waste), Solana Center for Environmental Innovation, searching the internet, and basic word of mouth. Obviously, this bodes well for the educational work of City staff and is a good indication that the City's educational program is effective at getting the word out to the community about environmental concerns, water quality, and opportunities to participate as the

program continues to grow. Additionally, it shows the beneficial cooperation efforts between the City and its contractors. One thing to note, however, is that the City has negotiated a better deal through another contractor after the end of this reporting period and will result in a lower cost to our residents.

The City is a member of the Regional Solid Waste Association (RSWA). As a member, the City participates in a multi-city agreement with EDCO Waste and Recycling Services, Inc. (EDCO). As reported earlier, the agreement resulted in a very successful program for elderly and homebound City residents to dispose of HHW at their door, *at no charge to the residents*.

This agreement was necessary as the City of Solana Beach does not have the capacity to operate its own HHW facility within its jurisdictional boundaries. Without this RSWA agreement, the residents would have very limited options in dealing with the proper disposal of HHW. This would ultimately lead to the improper disposal of HHW, which would threaten the local waterways and sensitive environment. However, due to the foresight of the City government, the formation and participation in groups such as RSWA lead to increased opportunities for the community to protect the local environment. It also allows the City to subsidize the costs of disposal to assist the residents in properly disposing their HHW.

Recycling

As noted in the Introduction of this report, the City is a proactive agency working to improve the environment along with its partner in this effort, Solana Center (formerly known as Solana Recyclers). The City was the first city in the county to initiate a curbside recycling program.

Another component of AB939 requires cities to divert at least 50% of their total solid waste away from landfills, and the best way to accomplish this is through recycling. The percentage of waste that the residents of Solana Beach recycled in 2004 (the latest known total as of this reporting period) is 56%. This shows that the City's programs are working and the awareness of the residents is very high, as many of the cities in the region failed to reach 50%..The process of writing the 2005 AB939 report was underway, but not completed before this report was submitted. These numbers will be included in next year's report.

However, it should be noted that the City was participating in a pilot study to determine the feasibility of transitioning from manual trash collection to automated trash collection. Studies have shown that automated trash collection

drastically improves recycling rates by providing more efficient “single stream recycling.” If the City decides to transition to the new program, it is anticipated that the recycling rates will increase throughout the City. This is being discussed post-reporting period, and if it does happen, more will be discussed in next year’s Annual Report. However, this bears mentioning as it shows once again the City’s forethought in adopting progressive programs even when not required or forced by state mandates.

5.1.2 Annual Clean-up Day

Each October, the City hosts an Annual Clean-up day. Waste Management provides roll-off containers for the collection of large appliances, yard waste, and scrap metal. Residents only need to bring their trash to La Colonia Community Center to drop off anything that they have, to save them a trip to the landfill, and it’s *free of charge*. Additionally, Solana Beach residents who call Waste Management can set up an appointment for *free curbside pick-up* and disposal of up to three bulky items up to three weeks prior to the event. It is well documented that the easier and more efficient it is for people to recycle or dispose of large items the more often they will do it. By offering this convenient, local and free of charge event, the less likely residents will dispose of their large items illegally, and keeping them out of our local waterways.

Each September, the City of Solana Beach participates in the annual Beach Clean-Up Day sponsored by the California Coastal Commission and I Love A Clean San Diego. The City hosted two sites again this year, one at Fletcher Cove and one in the San Elijo Lagoon, where residents came and spent the morning beautifying the local environment. This event was another huge success with a combined 71 volunteers collecting 290 pounds of trash, and 136 pounds of recyclables.

5.1.3 24-hour Hotline

To assist residents in obtaining information, reporting suspected storm water violations or to report illegal dumping, the City operates a 24-hour “storm water hotline” during this reporting period. The hotline (858-720-2400 x2512) is available 24 hours a day, seven days a week, 365 days a year. The hotline is linked directly to the voice mail of the City’s Environmental Specialist to increase efficiency and ensure prompt responses. This way, calls can be immediately fielded and handled in the appropriate manner.

5.1.4 Community Workshops

As previously discussed in last year's Annual Report, the City initiated monthly workshops in March of 2002 to educate the local community about the requirements of the Permit and the various storm water programs managed by the City. Workshops were scheduled and advertised in the North County Times, at City Council meetings, and flyers were distributed around town, including the local library. Unfortunately, only a handful of people attended the first few workshops.

City staff tried various methods to generate interest, including mailing flyers to "high priority" residential areas and hand delivering flyers to affected businesses, however few people attended. The City last hosted a community workshop in April 2003, and not one resident attended. It was decided at this time to suspend the community workshops and concentrate our efforts on outreach that has proven successful, such as; education during compliance inspections, education during daily driving rounds throughout the City, and mailers with specific BMPs to specialized businesses. City staff met with local HOA groups to talk with them regarding storm water issues to bring back to their respective members. Staff developed additional handouts that some HOA's incorporated into their newsletters that are distributed to all members. Also, City staff wrote an article regarding the proper handling and disposal of grease in a local HOA newsletter that also included an article on picking up after pets. This particular HOA has had problems in the past and it is located directly adjacent to the Seascape storm drain outfall, a historically bad pipe with very high levels of bacteria. The City has worked closely with this particular HOA and property management staff to educate the residents to prevent bacteria from entering the City's storm drain system. More will be discussed about this relationship in the IC/ID Investigation chapter. These types of activities prove to be much a more effective and efficient use of Staff's limited time as opposed to holding poorly attended community workshops.

5.1.5 Pet Waste Bag Dispensers

The City installed and maintains Pet Waste Bag Dispensers to reduce the potential of pollution stemming from residents (and visitors) not collecting waste from their pets while walking. This was a measure added to hopefully help the high levels of fecal coliform detected at the Seascape Outfall revealed during wet and dry weather monitoring. The City has posted dispensers and signs to encourage their use. The program appears to be working very well; during this reporting period, approximately 37,800 waste bags (up from 30,000 last year and

26,400 the year before) were utilized by the community. The increase accounts for the additional dispensers that were installed on the recently completed Coastal Rail Trail, which is discussed in more detail later in this report.

5.1.7 Education and Outreach

The City's entire education and outreach program is provided in Chapter 9 of this report. Activities associated with the educating of residents are addressed in this section, which may also be repeated in Chapter 9.

Shorelines articles:

The *Shorelines* is the City's Newsletter and Recreation Guide for community information. The newsletter is now distributed four times a year (Spring, Summer, Fall and Winter) to each resident and business within the City (up from twice annually in the past). It is one of the best methods to get information to the public about a variety of issues.

- In the Fall 2005 issue (Appendix F), the City published a variety of issues relating to storm water activities. These articles included:
 - Construction BMPs
 - Used Tire Recycling
 - Storm Water Hotline
 - Beach News
 - HHW Program
 - Recycling Centers
 - Christmas Tree Recycling
 - Used Oil Recycling
 - Annual Clean-Up Day
 - Composting

- Coastal Clean-Up Day
- In the *Shorelines* for Winter 2005 (Appendix F), the City published a variety of issues relating to storm water activities. These articles included:
 - Beach Water Quality Conditions
 - Holiday Tree Recycling
- In the *Shorelines* for Spring 2006 (Appendix E), the City published a variety of issues relating to storm water activities. These articles included:
 - Street Sweeping Activities
 - Solana Center Environmental Education Presentations
- In the *Shorelines* for Summer 2006 (Appendix G), the City published a variety of issues relating to storm water activities. These articles included:
 - New E-Waste Recycling/Disposal Options for Community
 - San Elijo Reserve Receives National Wildlife Federation Certification
 - Ecology Summer Day Camps

Brochures and Door hangers

In 2002/2003, the City collaborated with neighboring Copermittees (the cities of Del Mar, Encinitas, Oceanside, Vista, San Marcos, Escondido and Carlsbad) to develop several educational brochures. One particular brochure is referred to as the “door-hanger.” The door-hanger is an excellent tool to inform groups or individual residents about pollutants that were found in their area, but may or may not have been contributed by them specifically. The door-hanger has a place for staff to leave their business card, indicate the types of pollution found

(from landscaping to pet waste) and lists various specific BMPs for eliminating street and gutter debris in their area. Staff hopes that by placing the brochures around the entire neighborhood, residents will report to the City where the discharge came from or alter their behavior to prevent the discharge from occurring again.

Staff distributed the brochures to residents and business owners. The brochures have been used by Public Works staff, Code Enforcement Officers, and others and have been found to be an informative and effective tool. During this reporting period, City staff distributed approximately 144 door-hangers to the residents of Solana Beach. This includes those given out to neighborhoods during IC/ID and source tracking investigations, those given out individually during routine rounds around the City and any community fairs (Fiesta Del Sol) or regional workshops/events (about 12 a month on average for all activities).

Also in 2002/2003, the City collaborated with the other North County cities and created a brochure "*Only Rain in the Drain*," which is distributed at local community events and to visitors at City Hall, the Fire Department and Community Center. The brochure is also available at many community businesses. The brochure reviews Best Management Practices for residents and the need to prevent or mitigate pollution to the best extent practical. The brochure also provides a consistent message because all cities in the North County use it. It is difficult to track the amount distributed to City residents because many times they are given to various businesses and municipal sites to distribute to anybody who wants one.

School Presentations

The Solana Center conducts school presentations for the City to local schools within the City's jurisdiction. As part of both trash haulers' contracts (EDCO and Coast Waste) with the City, they are required to provide funds for public outreach and education. Both haulers have chosen to contract out this work to Solana Center. Therefore, Solana Center provides school presentations regarding storm water issues to the local schools. These presentations include discussions about the importance of preventing pollution from entering the streets, gutters and storm drains. The Enviroscape model is also used during these presentations. The following table details the school presentations that Solana Center conducted during this reporting period.

Additionally, the City's Park and Recreation staff conducts a summer "ecology

camp” for local children to educate them on various environmental issues, including stormwater and recycling. The children go on field trips and have classroom discussions. It is a very interactive classroom setting where the children are encouraged to participate and really engage in the various activities. The ecology camp is an annual program that will be utilized to educate the children in all environmental issues.

Tile Stenciling

All storm drain catch basins in the City currently have tile markers already installed. The construction standard described in the City’s JURMP, with respect to the requirement that all curb inlets have a tile marker permanently affixed on the face side, continues to be enforced. All new development/construction projects are required to install tile markers on all new curb inlets. City staff also document broken or missing tiles when detected in the field and report back to the Environmental Specialist to install.

Web site

The City’s Web site (<http://www.ci.solana-beach.ca.us/>) is another tool that can be utilized by residents to obtain information about the City’s storm water programs. The Web site address is printed on most educational and outreach materials, printed in the City’s newsletter, and linked to other storm water programs (such as thinkblue.org; ProjectCleanWater.org; and the County’s Department of Environmental Health).

5.2 Threat to Water Quality Prioritization

During this reporting period, the City re-evaluated the drainage areas to identify those areas that potentially posed a high threat to water quality as set forth in the Permit section F.3.a.(3)(b). A detailed inventory of the high priority residential areas was provided in the JURMP, Table 5-1.

*There are **no changes** to report in the City’s prioritization of high-priority residential areas from those submitted to the RWQCB in the City’s JURMP (February 21, 2002).*

5.3 Implementation of BMPs

As noted in this report, Section 5.1 (Pollution Prevention), the City has

implemented various methods to prevent pollution to the Maximum Extent Practical (MEP) standard from entering the City's MS4. The City indicated in its JURMP (Submitted February 21, 2002) the designation of several BMPs for the High Priority Residential Areas and Activities (see JURMP, Table 5-2).

The City has informed its residents, visitors, and business owners of the BMPs through the various methods described in Section 5.1 of this report.

One of the most significant differences between the City and other local agencies, is that runoff from automobile washing *is prohibited* by Solana Beach Municipal Code. City staff is often dispatched to reports of people washing their cars, and City procedures allow for several warnings before a citation is given, except in the case of mobile-car-washing businesses. In that instance, mobile car detailers are informed to cease their activity and immediately clean up the resulting discharge. Mobile detailers are cited for failure to comply if they refuse to discontinue or remedy the discharge. City staff records all violators and if they encountered them violating the Permit again within the City, they are immediately given an administration citation and fine.

Other BMPs that the City has informed residents about (besides those described in the JURMP) include those identified on Table 5.2, Household BMPs:

Table 5-2

Household BMPs

Potential Pollutant Activity	Description of BMP for Households
Water Runoff	Redirect water so that it does not leave private property. Adjust sprinklers to run for a shorter period of time.
Lawn and Garden Care	Use a nutrient test kit to eliminate unnecessary products and reduce the possibility of pesticides and fertilizers entering the storm drain.
Pet Waste	Dispose of pet waste properly (trash or toilet).
Gutter Debris	Clean out rain gutters, particularly, prior to the first rainfall and divert the rain gutter from roof onto landscaped areas.
Car Washing	Wash car at car-washing facility.
Household Hazardous Waste	Never wash paintbrushes, cans, or paint trays in a manner that will produce water runoff that enters the streets and storm water catch basins. Dispose of fertilizers, chemicals, herbicides, motor oil, and non-

	water based paint at a hazardous materials collection center:
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5.4 New Activities and Improvement for FY 06/07

The City will continue implementing the activities described in the Residential Component of the City's JURMP. The focus will continue to be education through brochures, flyers, public announcements, community fairs and one-on-one contact. The City will look for ways to generate interest in community workshops although the results of the survey indicate that a very high proportion of residents are knowledgeable about storm water issues. Additionally, the Civil Penalty Matrix will continue to be implemented and analyzed to determine the effectiveness of it and make changes if necessary.

5.5 Summary

The City has been successful at implementing the Residential Component of the JURMP including among other things:

- Provision of public pet waste bag dispensers (approximately 37,800 bags were utilized by the community during this year).
- Collaborating with neighboring jurisdictions (NCSWP) to develop several brochures, which have been distributed at local events, to City Hall visitors, and in neighborhoods.
- Using the City's Web site to post informative information about the City's storm water programs.
- Operating a 24-hour, 7 day a week storm water hotline that residents can report any storm water violations.
- Operating a community-wide hazardous waste collection program that offers door-to-door service for all residents.
- Operating a community-wide curbside recycling program for all residents.
- Providing opportunities for local school presentations regarding storm water issues.
- The City, along with the other Copermittees, will be continuing the region-wide Integrated Pest Management Program (IPM) that will include a residential component. The City will distribute all educational materials developed by the Copermittees and participate in any activities that may benefit the residents of Solana Beach.

CHAPTER 6

Land-Use Planning Component

CHAPTER 6: LAND-USE PLANNING COMPONENT (NEW DVLPMT)

In accordance with Permit Section F.1, this section of the report describes the City's efforts to prevent or reduce the water quality impacts from new and redevelopment projects through revisions to land-use planning processes. There are no significant changes to the City's JURMP to report in this component.

In each Annual Report to the RWQCB, this section will include new modifications to the City's General Plan (if any), review process for new and redevelopment projects, inventory of current public and private projects and activities associated with the Standard Urban Storm Water Mitigation Plan (SUSMP). Activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or permit compliance.

The JURMP (Section 6.0: Land-Use Planning for New Development and Redevelopment) describes the City's plans to integrate new project review processes to require mitigation of urban runoff. In addition, the City adopted a SUSMP and submitted it to the RWQCB on December 13, 2002.

6.1 Assessment and Modification of General Plan

Effective land use planning can provide important water quality protections by controlling the type and placement of activities allowed in critical areas, and by providing a framework within which site-specific control measures may be identified and imposed during land development and redevelopment activities. As such, the General Plan is crucial to the long-term success of its water quality and environmental programs.

There were *no changes* to the General Plan during this reporting period.

6.2 Project Approval and Environmental Review Process Modifications

As noted in the City's JURMP, during this reporting period the City continued to evaluate its project approval process and planned to, or made some modifications to the process for approving new and redevelopment projects. As noted in last year's Annual Report, the plan check routing sheet was modified to include additional information regarding storm water management. There was another significant modification to the routing sheet that occurred at the end of this reporting period that will be discussed further below. The intent of the

modifications is to ensure that pollutants and runoff from development will be reduced to the maximum extent practicable (MEP) standard and/or will not contribute to an exceedance of receiving water quality objectives.

Project Applicants (Applicants) are required to submit a detailed project application, which addresses a variety of concerns, including urban runoff and environmental impacts. The project application provides an opportunity for City staff and/or City Council to determine whether or not the project will be exempt from the California Environmental Quality Act (CEQA) process. If the project is subject to CEQA, the environmental impacts of the project must be reviewed and depending on the potential impacts, a more substantial environmental impact report (EIR) may be required.

As reported in previous Annual Reports, every applicant, *and prospective applicant*, who inquires about a particular project at the City Hall counter, will be given a copy of the City's Construction BMP Guide (Appendix H). The applicant will be given the guide regardless of whether they submit plans. This is being done to ensure that every person will have received a copy of the City's educational guide, many times more than once. Additionally, the plan check routing sheet was previously modified to include a separate box to check when the applicant receives the BMP guide (Appendix H). The project will not be approved until the box is checked. This was done not only to ensure that all applicants receive the guide, but as well as helping the Code Enforcement Department enforce violations much more efficiently. For example, if there is a storm water violation at a particular project, staff can now go back and check the plan check routing slip to see if the applicant received the BMP guide. If the box is checked, then staff knows that they have the guide and should be aware of the proper regulations, therefore increased enforcement can be taken.

As reported in last year's Annual Report, a significant addition occurred to the plan check process. Any project that increases the impervious area of a site by a minimum of 1,000 square feet must complete a Storm Water Plan Check Comment Form (Appendix J). This sheet requires a variety of information to ensure that there will be no additional run-off as a result of the project. The first requirement is the preparation of an Erosion Control Plan. Also, the applicant must demonstrate that the project *does not increase stormwater runoff*. Lastly, the applicant must demonstrate that they are implementing and maintaining all precautionary measures necessary to ensure that pollutant discharges from the site *will be reduced to the maximum extent practicable*. All additional storm water must be completely contained and treated onsite. This is not required by the

Permit, but the City believes that it would be prudent to address this issue on such a small scale because of the relative abundance of these smaller projects within the jurisdiction and the lack of larger scale projects that would otherwise be dealt with through the SUSMP process. Instead of ignoring these projects all together, the City felt it would be in its best interests to review these “minor” projects to ensure that most new construction and redevelopment would address these storm water concerns.

During this last reporting period, another significant modification to the plan check process occurred. The plan check routing sheet was further modified to include another section titled *Environmental* (Appendix I). This section was included to ensure that *all* plans submitted would be reviewed for storm water implications, no matter how small or relatively insignificant. Previously, plans would be routed through the Engineering Department and if the Engineering Technician determined that it warranted further review, the plans would be passed through to the Environmental Specialist. The process was modified to ensure that all plans would be reviewed just in case something was missed or overlooked. The City believes that plan review is essential to ensuring storm water compliance, so we are doing everything possible to make sure it is done thoroughly and accurately. The routing sheet was modified at the end of the reporting period and so the implementation will be discussed in more detail in next year’s Annual Report.

In addition to the CEQA review process, all applicants must obtain a permit from the California Coastal Commission (CCC) because the City does not have a Local Coastal Plan. The City also has strict environmental standards requiring compliance and governing land-use planning and construction.

The application includes some of the following questions:

- Financial interest of all parties who own, or intend to own the property.
- Proof that all owners of record within 300 feet of the exterior boundaries of the property have been noticed of the intent to develop (this allows opportunity for public participation in the process).
- Present use of property and proposed development description (commercial, residential, mixed use, etc.).
- Current floor area ratio (FAR) and proposed (this allows review of the

proposed change in impervious to pervious surface area). The City has a strict FAR and prohibits development within 40 feet of the western edge of the coastal bluffs.

- Proposed area to be graded (this allows the Engineering Department to assess potential erosion and runoff).
- Environmental condition of property (vegetation, drainage, noise, etc.) and neighboring properties.
- Business Applicants are required to submit information pertaining to the types of hazardous materials, whether or not industrial wastewater will be discharged in the property *and/or* off the property.

6.2.1 Project Requirements

As mentioned above, applicants are required to submit plans for all new and redevelopment of current structures to both the Planning and Engineering Department prior to approval. The Engineering Department reviews the project's grading and construction plans for potentiality of contributing to urban runoff. The City Engineering Department also determines the appropriate BMP requirements for each project and attaches the Storm Water Plan Check Comment form to the project plans and returns the plans to the applicant for modification, if required. Applications may be required to submit one or more of the following:

- An Erosion Control Plan (which requires BMPs to manage storm water and non-storm water discharges from the site at all time and shall emphasize sediment control).
- Evidence that the project will not increase storm water runoff.
- Storm Water and Non-Storm Water Runoff Control (this requirement address long-term control of runoff and may require structural modifications to direct discharges into permeable areas such as landscaping).

In addition, all projects are required at a minimum to include the following:

- Source control BMPs for all projects expecting to generate runoff.
- Implementation of site design/landscape measures to reduce and/slow runoff, minimize impervious to previous ratio, maximize infiltration and promote

alternative driveways and parking lots to include pervious land surfaces (as described in detail in the City's JURMP).

- Implementation of buffer zones for natural water bodies, where feasible and if not, trees, lighting and access restrictions are required.
- Industrial applicants are also required to provide evidence of coverage under the California General NPDES Permit for Storm Water Discharges Associated with Industrial Activities.
- Applicants are required to be in compliance with the City's current grading and storm water management ordinances, inspection requirements, general requirements for construction activities during the wet and dry season and implementation of appropriate BMPs to control erosion and runoff.

6.2.2 SUSMP

The City participated with other Copermittees in the development of the model Standard Urban Storm Water Mitigation Plan (SUSMP), which was approved by the RWQCB on June 13, 2002. The Solana Beach City Council adopted the City's SUSMP on December 3, 2002, which was submitted to the RWQCB on December 13, 2002.

The SUSMP addresses post-construction urban runoff pollution from new development and redevelopment projects that are designated as "priority projects" under the Permit. Most of the criterion that specifies which projects will be priority projects will not be applicable to the majority of City projects. The reason for this is that the City of Solana Beach is more than 95% "built-out" and primarily a residential community with small-business commercial properties (there are a few large commercial sites in the City). As a result, the City made few modifications to the Model SUSMP that was developed collectively by the Copermittees for its SUSMP. Over time, City staff will evaluate the effectiveness of the SUSMP and discuss changes to the Plan in this section of the Annual Report.

During this reporting period, the City of Solana Beach had *two projects* approved subject to the SUSMP requirements. These will be described in the following Construction Chapter.

However, the City's Planning Department (also referred to as Community

Development Department) is well aware of the SUSMP requirements and is consistently on the look out for potential projects that may fall under the SUSMP requirements. The Engineering Department handles all of the BMP review for the City, however, the Planning Department is the first department to review applicant plans. Community Development has also put together a table of potential sites and/or projects within the City that may have the potential to be developed and fall under the SUSMP requirements.

6.3 Education

Municipal Staff Education

The City of Solana Beach is a very intimate, cooperative group. All departments work very well with one another because they are forced to do so on a daily basis to serve the relatively small community. This makes training and education a much easier task.

The formation of the Storm Water Team brought together the directors of all the different departments (Planning, Engineering, Public Works, Assistant City Manager, Public Safety Chief, Code Enforcement Officers, Environmental Specialist, City Attorney and City Inspector) and forced them to discuss storm water issues and come up with solutions collectively. In turn, the directors would educate their respective employees on the specific tasks they were to perform. This was a very effective and efficient way to educate the Municipal Staff. Additionally, small presentations were given periodically at the monthly all-hands staff meeting held the first Tuesday of every month. At these meetings, the rest of the City staff would be educated on basic storm water issues.

City staff welcomes additional training opportunities and often seeks outside training opportunities to keep up with the ever-changing storm water universe. Part of the City's budget is specifically earmarked for training expenses to encourage Staff participation. Additionally, numerous consultants have made presentations to City staff regarding the latest technologies in the protection of water resources, including techniques to reduce erosion, bacteria and other COCs in urban runoff. City staff is always seeking new training opportunities to stay on top of this rapidly evolving field. The City's budget specifically allocated \$900 for training and conferences for the Environmental Specialist position for the FY 05/06.

Owner / Developer Education

The City has developed a counter handout, *Stormwater Best Management Practice (BMP) Guide for Construction and Building Activities* (see Appendix H). The handout explains how to control erosion and urban runoff during pre and post-construction activities and provides a description of General Construction BMPs. In addition, the City suggests that Applicants consult the California Construction Stormwater BMP Handbook and the Caltrans Stormwater Quality Handbook for technical assistance.

Also, as reported in last year's Annual Report, the City collaborated with the other North County cities to develop and distribute the Construction BMP Brochure (Appendix V). These brochures are distributed at the counter, at pre-construction meetings and in the field during inspections.

In addition, the City sends a "Rainy Season Reminder" to all current and active private projects within the City as a tool to educate and remind project owners and developers about the need to strictly adhere to the erosion control requirements during the rainy season.

Inspections are another opportunity staff utilizes to educate owners and developers about City and State runoff and erosion requirements. During inspections, the City Inspector points out problem areas and requires mitigation compliance immediately. If an owner or developer fails to comply, increased enforcement including fines can be levied and the City Inspector has the authority to halt construction practices.

The City has implemented similar procedures for public projects as those utilized for private projects. That is, during pre-construction meetings the requirements for erosion control and runoff management are discussed; the City Inspector makes daily inspections of the construction site to ensure appropriate BMPs are implemented and verifies effectiveness; and if necessary, the City Inspector will require modification of practices and activities to reduce runoff or control erosion.

6.4 New Activities and Improvement for FY 06/07

The City will continue implementing the activities described in the Land-Use Planning Component of the City's JURMP. In addition, with the implementation of the SUSMP, the focus for FY 06/07 will include the continued implementation and education of planning staff, builders, residents, and the community at-large as to how regulations of the SUSMP will impact construction. A more streamlined

and effective approach will be implemented during permit application to ensure that all applicants are fully aware of the storm water regulations and the consequences of not adhering to them. Additionally, the North County cities are currently developing a SUSMP project tracker that will provide a much needed inventory that will make inspections and enforcement activities on post construction BMPs much more efficient.

6.5 Summary

The City has successfully implemented the Land-use Planning Component of the JURMP. Some of the key accomplishments include:

- Education of planning staff, owners/developers and the community regarding changes in planning processes.
- Education of all Staff to recognize a violation and to report it to the proper authority.
- Implementation of new procedures to ensure new and redevelopment projects do not contribute to an exceedance in water quality standards.
- Addition of Environmental section of permit routing sheet to ensure *all* plans/projects are reviewed by Environmental Specialist for storm water issues.
- Increased cooperation between City departments in implementing SUSMP requirements.

CHAPTER 7

Construction Component

CHAPTER 7: CONSTRUCTION COMPONENT

In accordance with Permit Section F.2, this section of the report describes the City's efforts to prevent or reduce water quality impacts from construction site activities. Some portions of the City's JURMP for this Component have been modified in response to the Best Professional Judgment (BPJ) of City staff. Noteworthy modifications to the program will be discussed within this section of the report.

In each Annual Report to the RWQCB, this section will include modifications to the City's inventory of active construction sites (private and public), modifications to the City's policies or Municipal Code with respect to construction activities, modifications to identified potential threats to water quality. In addition, this section of each Annual Report will include results from the City's efforts to require BMPs at construction sites and program accomplishments. Also, a summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or Permit compliance.

During this reporting period, the City conducted an evaluation of its construction practices and inventoried existing construction sites in an effort to understand potential sources of pollution, threats to water quality, and to develop a plan to mitigate or eliminate urban runoff and pollution from these construction sites by requiring BMPs.

7.1 Modification of Grading Ordinance

There was *one modification* of the Grading Ordinance during this reporting period. The significance of this modification is that it lowered the grading threshold from 200 cubic yards to 50 cubic yards for all construction projects, meaning much smaller projects that would not normally be scrutinized for storm water management would now be required to go through the grading permit process. This gave City staff more discretion on smaller projects to require storm water mitigation, and with it, gave Staff more power to enforce the installation and/or site design modifications to that would not have been required if a grading permit were not necessary. The ordinance was actually adopted at the end of last reporting period (June 30, 2005), but the implementation occurred during this reporting period.

7.2 *Modification of Construction and Grading Approval Process*

The modifications to the City's processes for project approvals are described in detail in the previous chapter of this report (Chapter 6). Although Chapter 6 specifically addresses Land-use Planning, the discussion included a description of various processes that Project Applicants must proceed with in order to obtain approval of their construction plans. Chapter 6 also describes the improvements made to the plan check routing slips as well as the increased education efforts City staff has made to ensure Permit compliance.

The Plan Check Comment Form (see Appendix J) may require the Applicant to submit an Erosion Control Plan, proof that the project does not increase runoff from the property and/or implementation of structural changes to redirect runoff onto impervious surfaces.

The City also continued implementation of the SUSMP process during this reporting period, and there were *two projects that required the SUSMP process review* (see Table 7-1 below for more information on these projects). The City does not anticipate many projects that will fall under the SUSMP guidelines, since the City is 95% "built out." However, any project that may be proposed that fall under the guidelines will be put through the process. Planning staff and Engineering staff have been trained and are aware of the SUSMP requirements, and will implement the program when appropriate. As discussed in Chapter 6, Planning staff has compiled a table that includes all potential sites/projects where SUSMP activities may occur in the future. This list is continually updated as more information is received by City staff, and the projects are closely watched as they move forward in the approval process. This table is available upon request.

As reported in last year's Annual Report, a new development in the plan check process was initiated in July of 2004. The Environmental Specialist began receiving the Building Department checklist of permit approvals. One major obstacle that the City was facing in the plan check process was that the City's building department was actually located in the City of Encinitas. This resulted in some disconnect between City Hall and the Building Department, and some projects that did not require Grading Permits but may result in storm water discharges were being overlooked because they did not require extensive Engineering Department review. So, some smaller remodeling and construction projects were not being properly monitored. Although the projects were not required by the JURMP to be inspected due to their size or activity, the City felt it relevant to at least track the construction and visually monitor the site. So, the

routing sheets were altered to pass through the Environmental Specialist, at the discretion of the Engineering Technician, to be reviewed and tracked based upon further review.

A significant improvement to the permit routing sheet that occurred this reporting period was the addition of the *Environmental* section (Appendix I). As noted in Chapter 6, the routing sheet was modified to ensure *all* permit applications were thoroughly reviewed by the Environmental Specialist, even down to the basic window replacement. Last year's revision was necessary to bring the Environmental Specialist into the review process for larger projects, but the City felt it necessary to completely involve the Environmental Specialist in *all plan reviews* to bring consistency to the process.

7.3 Construction Site Inventory

This section of each Annual Report will include an inventory of construction sites active during this reporting period. Given that the reporting period for these Annual Reports ends approximately six months prior to the submittal of the report, the inventory will most likely be outdated by the time the report is reviewed by the RWQCB. However, the City maintains an inventory of current construction project sites, which is always available for review. In addition, the Planning Department maintains an inventory of proposed sites and projects. Large private project (commercial sites, multi-unit housing, etc.) may remain on the "active" inventory for a significant period of time.

As shown on Table 7-1, there are currently nine major construction sites active within the City. In addition, City Engineers are in constant discussions with private project property owners during the plan check process to ensure their projects include an Erosion Control Plan, modify drainage alterations to re-route runoff to pervious surface areas, proof that the project would not result in an increase in runoff from the site or other various structural BMPs, and require all projects to control and mitigate all run-off before it reaches the City's MS4 system (Table 7-2). Also, all grading permits require an Erosion Control Plan.

Table 7-3 is a list of all *new* grading projects that required an erosion control plan and proof that the project would not result in an increase in runoff from the site. Table 7-4 is a list of all follow-up activity to construction site inspections. As you can see, most construction sites within the City are in compliance due to the fact that there are relatively few sites and City staff can work with the contractors on an individual basis and spend more time with them in the field. The advisory

notices described in this table are the result of visual inspections pre and post storm events where City staff visit all sites and list any problems detected prior to a storm and right after the storm is over. This is performed prior to a rain event to ensure that all sites have proper erosion control BMPs installed and post rain event to see if any deficiencies are detected that need to be addressed.

Table 7-1

Construction Site Inventory- Large Grading Projects 2005/2006

Project Name and Location	Priority Category	Current Zoning	Type of Construction	Project Size	Hydrologic Unit	Drainage	Draining to 303(d) listed water?	303(d) Pollutants of Concern	Required BMPs
Sheppard Medical 634 Stevens Ave.	Medium	Office/ Professional	Office Building.	0.4 acres	San Dieguito	Stevens Creek, which drains to San Dieguito Lagoon.	Yes	Coliform	Storm Water Management Plan. Erosion Control Plan pre/post construction; drainage flow to constructed bioswale.
Santa Fe Christian School 838 Academy Dr.	Medium	Medium/High Density Residential	Redevelopment and Expansion of School Facility.	15.65 Acres (Entire Site)	San Dieguito	Stevens Creek, which drains to San Dieguito Lagoon.	Yes	Coliform	Erosion Control Plan pre/post construction. Low flow drainage diverted to playing fields—acts as constructed biofilter.
140-212 Helix Ave	Medium	Residential	Redevelopment of residential lot into 4 Single Family Residences	0.5 acres	San Dieguito	Runoff drains to Fletcher Cove/ Low Flow Diverter to Sewer System	Yes	Coliform	Onsite drainage through bioswale before entering street. Street drainage to Fletcher Cove Low Flow Diverter – Diverted to sewer
100 Blk S Granados	Medium	Medium/High Density Residential	Development of 5 Residential Units	.85 Acres	San Dieguito	Runoff drains to Fletcher Cove/ Low Flow Diverter to Sewer System	Yes	Coliform	Erosion Control Plan (bio-filters; fencing); pre/post construction runoff mitigation. Exposed slopes required to be covered with matting. Construction of new curb inlets.
820-860 Highland Ave	Medium	Residential	Development of 4 Residential Units	.9 Acres	San Dieguito	Runoff drains to Steven's Creek- Then to San Dieguito Lagoon	Yes	Coliform	Erosion Control Plan; Post Construction BMP – Large detention system installed to store runoff and settle out sediments before slowly discharging. Use of onsite landscaping to filter runoff.

Coast Highway 101	High (Public)	Park	Construction of Coastal Rail Trail	6.85 Acres	San Dieguito- (South) San Elijo Lagoon- (North)	Runoff drains to Steven's Creek- Then to San Dieguito Lagoon in the south. Runoff drains to San Elijo Lagoon in the north. Central runoff to Fletcher Cove Low Flow Diverter	Yes	San Dieguito- Coliform San Elijo Lagoon Sediment Coliform Nutrients	SWPPP required; Erosion Control Plan; pre/post construction runoff mitigation. Onsite landscaping designed to filter runoff before leaving project site.
Iron Stone Bank 706 Lomas Santa Fe	Medium	Commercial	Construction of New Bank	.5 acres	San Dieguito	Runoff drains to Steven's Creek- Then to San Dieguito Lagoon in the south.	Yes	San Dieguito- Coliform	Erosion Control Plan; pre/post construction runoff mitigation.
Boys and Girls Club – 537 Lomas Santa Fe	High	Public Institution	Construction of New Pool, Retaining wall, Etc	2.96 acres	San Dieguito	Runoff drains to Steven's Creek- Then to San Dieguito Lagoon in the south.	Yes	San Dieguito- Coliform	SUSMP required. SWPPP required; pre/post construction runoff mitigation. Installation of CDS unit and catch basin insert filters
American Assets Commercial Property Remodel – Including Parking Lot	High	Commercial	Construction of Additional Retail – Reconfiguring of Parking Lot	.8 acres	San Dieguito	Runoff drains to Steven's Creek- Then to San Dieguito Lagoon in the south.	Yes	San Dieguito- Coliform	SUSMP required. pre/post construction runoff mitigation. Installation of CDS unit

Table 7-2

Construction Site Inventory

Small Private Projects Requiring Plan Modifications

<u>Address</u>	<u>Type</u>	<u>Erosion Control Plan</u>	<u>Runoff Mitigation Required</u>	<u>Other</u>
415 N. Acacia Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
723 Barbara Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
653 Canyon Rd.	Room Addition	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased or provide evidence that added impervious area is less than 1,000 S.F.
742 Castro St.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
132-136 S. Cedros Ave.	Addition	No	Yes	Proof runoff not increased.
435 S. Granados	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
615/617 Ida Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
629 Mar Vista Dr.	Residence	No	Yes	Proof runoff not increased.
609 Marine View Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
621 Marine View Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
356 S. Nardo Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
100 Pacific Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.

454 Palmitas	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
127 S. Rios Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
139 S. Rios Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
313 San Lucas Dr.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
514 Seabright Ln.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
860 Seabright Ln.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
147 N. Sierra Ave.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.
853 Vera St.	Residence	Yes	Yes	Erosion Control Plan Needed. Proof runoff not increased.

Table 7-3

Construction Site Inventory

Small Grading Permit Projects 2005/2006

PERMIT #	DATE	ST. #	STREET	COMMENTS
SBGR - 177	3/23/2005	1247	Via Mil Cumbres	Slope Failure Repairs
SBGR - 178	4/20/2005	100	Pacific Ave.	Grading Improvements
SBGR - 179	5/2/2005	415	N. Acacia	SFR Grading
SBGR - 180	6/29/2005	402	Hilmen	Backyard Pool
SBGR - 181	8/10/05	560	San Andreas	Slope Repair
SBGR - 182	8/19/05	667	San Rodolfo	Realign Driveways and Parking Lot
SBGR - 185	10/31/05	859	Avocado	New SFR
SBGR - 187	11/09/05	135	S Sierra Ave	Repairs to Lower Bluff

SBGR - 188	12/27/05	371	Pacific Ave.	Shoreline Stabilization
SBGR - 189	1/4/06	517	Pacific Ave.	Seacave Infill Maintenance
SBGR - 190	1/4/06	201-231	Pacific Ave	Seacave Infill Maintenance
SBGR - 191	1/4/06	249-311	Pacific Ave.	Seacave Infill Maintenance
SBGR - 193	2/2/06	325	S Sierra	Stairway and Seawall Maintenance
SBGR - 195	2/3/06	966-970	Santa Florencia	Slope Failure Repair

Table 7-4**Public Projects Pre-Construction Meetings 2005/2006**

DATE	PROJECT	DETAILS
7/8/2005	2005 Asphalt Rehabilitation Project	Erosion Control/Storm Water requirements discussed.
7/12/2005	Rosa Street Storm Drain Project	Erosion Control/Storm Water requirements discussed.
11/10/2005	Northbound Highway 101 Rubberized Asphalt Overlay	Erosion Control/Storm Water requirements discussed.
2/10/2006	North Rios Storm Drain Improvements	Erosion Control/Storm Water requirements discussed.
3/1/2006	Landscaping & Electrical Work at Rosa St Bridge	Erosion Control/Storm Water requirements discussed.
3/15/2006	Temporary Use Permit to Store Construction Vehicles	Erosion Control/Storm Water requirements discussed.
3/30/2006	Crack Sealing Project on Lomas Santa Fe	Erosion Control/Storm Water requirements discussed.

Table 7-5**CONSTRUCTION FOLLOW-UP ACTIVITIES 2005/2006**

DATE	PROJECT	TYPE OF FOLLOW UP
7/26/2005	646 N Granados	\$100 Citation
9/6/2005	801 Midori	Verbal Warning
10/3/2005	841 N Rios	\$200 Citation
10/24/2005	525 Marview	Verbal Warning
12/1/2005	141 Brookdale Pl	Verbal Warning
1/17/2006	834 S Sierra	\$1,000 Citation
02/03/2006	635 Driftwood Ln	Written NOV
3/15/2006	234 Cliff St.	Written NOV
4/17/2006	100 Pacific	Verbal Warning
6/9/2006	712 Solana Circle	Verbal Warning

7.3.1 Capital Improvement Projects Inventory

In addition to the inventory for private projects, City staff believes it is equally important to discuss both public (Capital Improvement Projects [CIPs]) and private projects under construction.

CIPs are held to the same *or stricter* standards for reducing runoff as private projects. BMPs, Erosion Control Plans, and structural changes to reduce or mitigate runoff pre and post-construction are required. Most, if not all, CIPs in Solana Beach are constructed by private contractors selected through the standard public bid process. Contractors are informed *prior to submitting a bid*, that the City requires adherence to RWQCB standards, Permit and City storm water regulations. To ensure compliance the City Inspector conducts a daily inspection of each CIP site during construction. Stop Notices are issued if the contractor fails to comply with any storm water / erosion control regulations.

Additionally, the Environmental Specialist is included in pre-construction meetings that are required for *all* public projects. A line item discussing NPDES regulations and requirements is standard for all public project agendas (Appendix N). This is just another way to ensure that all contractors are aware of the requirements before the project begins, and to help with possible enforcement actions.

In FY 05/06, the City Inspector did not issue any Stop Notices to contractors for failing to comply with storm water/ erosion control regulations.

7.4 Threat to Water Quality Prioritization

In accordance with Permit Section F.2.e., the City described the criterion for designation of construction projects as high, medium, or low priority, in its JURMP. *There are **no changes** to report in the City's criterion for determining a project's impact or threat to water quality.*

Of the active projects currently under construction, *there are no changes to report with respect to the potential threat to water quality.* The City is 95% "built out" which does not leave much room for major development projects. The only projects that would fall under the high priority would be significant redevelopment projects, which there were none of during this reporting period. The City is closely monitoring three potential projects that may fall under the high priority in the next reporting period, pending permit approval. It is important to note that

City staff is currently working with the prospective developers to ensure they integrate beneficial storm water designs during the design phase. The following projects are being closely monitored by City staff:

1) Multiple plans have been submitted to the City to build a hotel/restaurant and condos on the site, however it has been met with some opposition within the community and a compromise is being sought. Plans still have **not** been adopted by the City Council at the time of this report. If a project is accepted for development in that area during the next reporting period, it will be a high priority project subject to the SUSMP process because of its proximity to the San Elijo Lagoon, a 303 (d) listed water body.

2) Another *potential* high priority project that is being discussed is a large multi-use residential/commercial development on what is currently the North County Transit District's (NCTD) train station property. This proposed project has also come under heavy scrutiny from the public and no plans have been approved by the City. If a project is accepted for development on this site during the next reporting period, it will be a high priority project because of its size. It will be subject to the SUSMP requirements much like the project mentioned above.

3) A potential high priority project that will most likely be approved with construction beginning during next year's reporting period is the Fletcher Cove Park Improvements. This is a pretty significant public project (CIP) that is directly adjacent to the ocean. The overall imperviousness of the project site will decrease after the project is complete, but intense efforts during construction to prevent erosion and discharges will have to be conducted by City staff. The project is in the review process and the California Coastal Commission has put stringent requirements regarding environmental considerations that will greatly impact the end result, in a beneficial manner. More information will be provided in next year's Annual Report if the project proceeds.

The City's Capital Improvement Projects, available upon request, will be considered high priority for several reasons. First, "high priority" verses "medium" or "low" priority may only result in a change in the frequency of oversight and the City Inspector visits each public construction site on a daily basis, which therefore eliminates the need for a delineation in priority. Second, given the City's proximity to the Pacific Ocean, all erosion, sediment and runoff control practices are very important and are expected to be very beneficial to the community. Therefore, the designation of "high priority," improves the likelihood that CIPs will not contribute to an exceedence of water quality standards.

The much anticipated public Coastal Rail Trail project continued during this reporting period. Due to the size and location of the project, the City felt it prudent to hire an independent inspector just for this project. The City does not have the resources to dedicate a full time employee to this project, so it was necessary to hire some outside help. Included in the duties of the inspector was storm water compliance. The inspector was required to complete weekly reports on storm water compliance and submit them to the City's Environmental Specialist for review. In addition, the City's inspector and Environmental Specialist would do a visual inspection daily to ensure the City's storm water regulations were being adhered to. Also, storm water issues were discussed, as necessary, during the weekly meetings between the City and the private contractors. This project was a major part of the RWQCB's independent audit performed by Tetra Tech, as it was important to monitor how the City was overseeing the construction of this major public project. This project is anticipated to be completed in the near future, and should no longer be included in future Annual Reports.

7.5 *BMPs and Pollution Prevention Methods*

As noted in the City's JURMP, the City requires general and specific BMPs for construction sites and with the modifications in the development review process, the City is able to require structural BMPs prior to construction. Owners and developers are provided a BMP Construction Brochure (see Appendix R), and they meet with engineering staff to develop methods to ensure that runoff is not increased as a result of their proposed project. The City believes that working with the contractors during the plan approval process is the most critical time period to ensure that appropriate BMPs (structural, pre-and post-development) are built into the project *before* pollutants are allowed to enter the storm drain conveyance system.

BMP Selection

The City does not require a specific or certain type of BMP (except for SUSMP projects) for all projects similarly designed. Instead, staff members evaluate each project on its own merit and determine if modifications to the plans are required to control erosion and/or reduce runoff. City staff works together with property owners and developers to find satisfactory solutions to project problems.

Pollution Prevention Methods (PPM)

- Construction limitations – the City limits construction during the wet season when construction plans warrant and when it is feasible. Implementation of this PPM reduces the potential for pollution.
- Education – the City sends out letters to all active public and private construction projects at the start of the wet season to remind them of the importance of implementing the required BMPs (see City JURMP for a description) and the importance to take precautions during storm events. Additionally, a BMP Construction Brochure is attached to all permit approvals and distributed at City Hall Engineering and Planning counters to all prospective developers and interested members of the community.
- Inspections – as discussed below and elsewhere in this report, the City Inspector and Environmental Specialist visit construction sites and keep a record of BMP implementation and effectiveness. When a developer does not comply with the City Inspector's request to modify practices to reduce runoff or erosion, construction activities can be halted at the site and fines may be levied.

7.6 Enforcement and Inspections

Enforcement of the City's Municipal Code is conducted by the City's Code Enforcement Officers. The City Inspector and Environmental Specialist conduct inspections of construction site BMPs, but if enforcement actions above written NOVs are necessary, Code Enforcement Officers are notified.

Code Compliance

The City has developed procedures to track and monitor citations issued to property and business owners, visitors, and developers. These procedures include the adoption of an Administrative Fine process which was adopted by the City Council on June 18, 2002. This process allows Code Enforcement Officers to issue administrative citations and penalties in between \$100 and \$1,000 for each day the violation occurs; this applies to construction sites, public and private.

In addition to the administrative fine process, the City adopted a Civil Penalty Matrix (Matrix). This is a very significant tool that will greatly enhance the

enforcement of storm water violations. The City felt it was necessary to develop a matrix to evaluate each violation in the field, and to respond to them in a consistent and appropriate manner. The Matrix was designed so that anybody in the field who witnesses a violation can apply the parameters of the Matrix to decide the appropriate way to respond. This greatly enhanced the efficiency of the storm water program, as now not all violations would require multiple staff to respond or, if a fine was necessary, staff did not have to wait for approval from upper management to issue it. This would sometimes take as long as month, but with the Matrix, this could happen instantaneously in the field.

The Matrix was modeled after the City of San Diego's Civil Penalty Matrix. The Matrix was scaled down and modified for the type of violations most often encountered in Solana Beach, but the foundations are very similar. The Matrix basically breaks down the violation into two categories, Environmental Significance and Compliance Significance. These two categories are further broken down into Moderate, Major, and Severe. According to the type of violation and the history of the violator, the penalties will be placed in the appropriate section of the Matrix. This ensures that all violations are treated consistently, and the feelings of the investigating officer do not interfere, so the enforcement actions do not vary. This, according to our Code Enforcement Department, is extremely important if a fine gets challenged in court. The Matrix is currently being used, and a fine has not been successfully challenged yet. The Matrix was developed in cooperation between the City's Environmental Specialist and Code Enforcement Specialist, further showing the great working relationship between City Departments.

The Matrix is used for all violations, not just construction related offenses. It can be applied to municipal, commercial, and residential offenses. For the complete Civil Penalty Matrix, see Appendix D.

The City also purchased seven radios to be used by the Engineering/Public Works Department that are used to communicate between Staff to report storm water violations. The radios were purchased so communication can be made at all times with appropriate staff, in the case of a storm water violation. The radios also can connect with the City's Code Enforcement Department, Fire Department, and Marine Safety Department, as well as the City of Del Mar Code, Fire, and Marine Safety Departments. This allows for immediate contact with appropriate staff to respond to any situation, including storm water. Before the radios, people either had to be paged or had to be at their desks, which proved to be very inefficient. The delays would often cause staff to miss violations because

they did not get the information in time. The radios have allowed for much better communication and increased enforcement, as violators are often contacted while the violation is occurring.

Site Inspections

All construction sites are inspected by the City Inspector and Environmental Specialist; this includes public and private development projects. As stated in the City's JURMP, it was anticipated that private development projects would be inspected by the City's Building Department, which is shared with the City of Encinitas. However, a partnership to handle inspections did not develop. As a result, the City Inspector and Environmental Specialist have been visiting all development projects in the City, unless the project is an indoor remodel. In that case, the City Inspector would only visit the property if time and resources permit, and if prohibited activity is noticed, a letter is sent to the property owner.

With the addition of the Environmental Specialist, the City is able to inspect construction sites more frequently and thoroughly. Both the City Inspector and Environmental Specialist devote time out of their daily schedule to visually monitor all construction sites. Sometimes this is done in tandem, but often times it is simply a drive by of all sites. They meet at the end of the day and discuss any problems observed, if any. This has been very successful in preventing pollution from leaving construction sites, as most problems are fixed before any illegal discharges leave the property. Since there are not too many projects in the City, this type of monitoring is highly successful, as private project managers and city staff communicate very effectively.

In addition to the visual inspections discussed above, more thorough on-site inspections are conducted in accordance to the City's JURMP. These inspections are conducted by both the City Inspector and Environmental Specialist in conjunction with the project superintendent. These inspections are set-up beforehand to ensure that the project superintendent has time set aside to walk the site with City staff and discuss storm water compliance. As reported in the JURMP, all high priority construction sites will be inspected on a weekly basis, and more frequently when deemed necessary during both wet and dry seasons. All medium priority sites will be inspected at least once per month, and more frequently when deemed necessary during both wet and dry seasons. All low priority sites will be visited at least once during both the wet and dry seasons, with more inspections during the wet season months.

If any possible violations are noticed during either the visual inspections or on-site inspections, City staff may stop and talk with the property owner, write a letter, request Code Compliance to issue a citation, issue a “stop work notice” or a combination of these activities. The City’s new adopted Civil Penalty Matrix, discussed previously, is also used for construction related violations.

In addition, City staff conducts inspections at all medium and high priority construction sites prior to a rain event to ensure all BMPs are installed correctly and working properly. A follow-up site inspection is then conducted after the rain event to monitor how effective the installed BMPs were and if any modifications need to be done. Construction sites are constantly evolving and require constant monitoring, which the City staff understands and enforces.

Enforcement of BMPs

During inspection of construction sites, City staff verifies that appropriate BMPs have been implemented and are effective (sediment is on-site, erosion control methods in place, runoff mitigated or not leaving property, etc.). In addition, City staff has the authority to immediately require new BMPs if erosion control, runoff, or other activity is taking place that contributes pollutants into the City’s MS4.

During this reporting period, the City staff conducted daily inspections of all CIPs and mandatory inspections of private projects within the City’s jurisdiction and did not need to report any non-compliant sites to the RWQCB. Any site that was determined to be out of compliance was immediately notified and the problems were resolved.

Educational Activities

The education activities conducted for construction sites consisted mainly of verbal conversations between the contractor/developer and City staff. Because of the relatively few projects in the City, it is possible and practical to discuss issues on-site with the contractors. Also, they are given either the “Stormwater Best Management Practice (BMP) Guide for Construction and Building Activities (see below)” or the new Construction BMP brochure and storm water issues were specifically brought up. The City believes that it is much more effective to talk with the contractor face-to-face about these concerns and, since we are a small city, it has been and continues to be very effective.

City staff previously developed an educational Construction BMP guide (Appendix H) that is available to actual and prospective developers/contractors at City Hall. This BMP Guide provides some background on the storm water regulations and provides examples of proper storm water management for construction sites. These BMP Guides are available at the City Hall Engineering/Planning Departments to anyone that inquires about projects or storm water issues in general. This used to be the primary tool used to disseminate information/guidelines to the development/construction community. However, as discussed briefly before in this report, a new and improved tool has been developed by the North County Storm Water Program and is now being distributed to all prospective and active construction applicants.

The new tool that was developed is the Construction BMP Brochure (Appendix R). This was developed by the North County Storm Water Program to provide a consistent message/requirements to all contractors/developers in the region, regardless of where they are doing work. This brochure was meant to supplement each individual cities educational outreach to ensure that the development community was receiving a consistent message regarding proper construction practices. This brochure has been very well received by the development community and in Solana Beach has replaced the Construction BMP Guide as the primary educational tool distributed to the development community. The Construction BMP Guide is still readily available at the Planning/Engineering counter, but the Construction Brochure is now attached to all permit plans routed through the City.

Additionally, as discussed previously, a check box was added to the building plan routing sheet for this BMP Guide that applicants are required to check signifying their receipt of the BMP Guide prior to approval. This has now switched to the Construction BMP Brochure. This ensures that all applicants have received some education of storm water regulations prior to start of the project. These BMP Brochures are also distributed to the contractors on-site during the inspection process, and are required to be on-site during construction. To ensure that all contractors have received the BMP Brochure, there is a box included in the inspection form that all contractors must sign. During this reporting period, 509 BMP Brochures were given to prospective construction applicants, up from 416 last reporting period.

Another educational tool utilized by the City to get the word out to our residents was a series of articles published in the bi-annual newsletter "Shorelines" put out

by the City. The newsletter is received by everyone in the community and is very popular and eagerly anticipated. A variety of storm water topics are touched upon, including construction. These articles are intended for smaller projects such as remodeling and single home construction, but it is still very important nonetheless. These smaller projects hold a much higher priority in our City because of the lack of larger projects; so educating the individual homeowners is extremely vital. Also, the City has found that the smaller projects have the most potential violations, as most are owner/contractor situations where they are not aware of the storm water regulations. The larger projects often have erosion control specialists and employees who are required to attend storm water education classes. The newsletter comes out four times a year now, and are included as Appendices and described in previous Chapters of this Report.

Four-Tiered Approach

As mentioned in last year's Annual Report, the City has initiated a four-tiered approach to construction education/inspection to ensure compliance with the Permit. The aspects of the approach have been touched on briefly in this chapter, but a more concise description is discussed below:

- First Tier- The first tier is the distribution of the Construction BMP Guide and/or Brochure. As discussed previously, this Guide and/or Brochure are given to all prospective and actual applicants at the City Hall counter as well as in the field during inspections.
- Second Tier- The second tier is the pre-construction meeting and form that is completed prior to the start of construction (Appendix O).
- Third Tier- The third tier is the actual construction inspection and form to be completed on-site with the project superintendent (Appendix P).
- Fourth Tier- The fourth tier is the Wet-Weather Triggered Action Plan that is required to be completed and kept on-site by all project superintendents. The form is to be updated as needed and must be available for review during site inspections (Appendix Q).

7.7 New Activities and Improvements in FY 06/07

City staff will continue to enforce BMPs (structural and behavioral), conduct inspections and keep an accurate inventory of the private and public projects. The City has now transitioned into the enforcement stage of the inspection process, away from education. Although, all new construction applicants will be

provided adequate educational information prior to construction commencement. The City expects to continue implementation of the four-tiered compliance procedure with all new and existing construction projects to ensure compliance.

Additionally, the North County Storm Water Program has developed the region-wide (north county) construction brochure that is now distributed in the respective communities. This brochure combines the basic educational messages of each jurisdiction and includes a diagram of a successful BMP approach for a small construction site. The purpose of this brochure is to bring consistency to the region regarding BMPs and requirements so that developers/contractors will be receiving same message and direction from all participating cities. It has been received well in the construction community as the requirements throughout jurisdictions will become consistent.

Another major change that occurred at the end of this reporting period was the ability to ensure that all post construction BMPs will be installed and maintained by the contractor and/or property owner. By including the Environmental review section on the routing sheet, there is now a section that can be marked for inspection required prior to installation or prior to final approval of the project. This was done to ensure post construction BMPs required on the plans are actually installed and ensures maintenance through a special agreement that is recorded through the County of San Diego. The City found in some cases that the post construction BMP is sometimes buried in the ground before inspection, thereby making it impossible to inspect. So, there is now a spot on the routing sheet that will put the onus on the contractor to call for an inspection during the installation to ensure it is actually being done. This way it can be more efficiently documented and inspection required before the permit gets final approval. There will be more on this in next year's Annual Report as this was implemented at the end on the reporting period.

The City is committed to working with the other cities within its respective watersheds (Carlsbad and San Dieguito) to ensure compliance with all storm water regulations. Some activities for next reporting period will focus on construction projects to target sediment, which is a high priority pollutant in both watersheds.

7.8 Summary

The City has been effective at implementing a plan-check process that has resulted in the implementation of BMPs, site design modifications, structural

changes and runoff mitigation activities in project proposals and/or construction activities. Both public and private construction projects are subject to the City's strict standards, which provide a consistent approach to reducing urban runoff from construction activities. The City has effectively integrated the new stricter standards of the Permit, including the SUSMP, into its plan-check review process. Additionally, the City has successfully implemented the Four-Tier Approach which has been very successful during education and inspection procedures.

The City will continue to actively analyze the construction program and make necessary improvements/modifications to ensure the protection and enhancement of the local water quality. An example was the addition of the Environmental review section of the permit routing sheet. The City felt like some smaller projects, although not specifically required to be plan reviewed and inspected by the Permit, may have the potential to be overlooked. Therefore, now *all* plans are reviewed by the Environmental Specialist and necessary changes can be made before plans are approved. In addition, there will be more on the post construction BMP inspection and maintenance requirements discussed earlier in this section in next year's Annual Report as it was implemented at the end of the reporting period. Also, the reduced grading ordinance modification demonstrates the City's commitment to reviewing as many projects as possible and integrating storm water management requirements to projects that would have been overlooked in the past.

CHAPTER 8

Illicit Discharge Detection and Elimination Component

CHAPTER 8: ILLICIT DISCHARGES DETECTION AND ELIMINATION COMPONENT

In accordance with Permit Sections B and F.5, this section of the report describes the City's efforts to detect and eliminate illicit discharges (ID) and illegal connections (IC) into and from the City's storm drain conveyance system.

In each Annual Report to the RWQCB, this section will include results from efforts to eliminate and prevent IC/IDs, results from the most current Dry-Weather and Wet-Weather Monitoring Programs and Coastal Outfall Monitoring Program. Also, this section of the report will include any changes to the City's *Action Levels for Field Screening and Laboratory Parameters*. A summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or Permit compliance.

The City's JURMP outlines in descriptive detail the City's plans for detecting and eliminating IC/IDs, which would be redundant to repeat in this Report. However, the City's IC/ID program that was in place *prior to the JURMP*, directed the procedures for conducting the 2001 dry-weather monitoring program (DWMP), while the procedures identified in the JURMP, directed the 2002 DWMP. This report will discuss the results of the 2004 DWMP.

8.1 IC/ID Program History and Current Prohibitions

The City implemented its first IC/ID program in 1993, which included dry weather screening, annual storm water conveyance system inspections, and prompt responsiveness to complaints.

Between 1993 and 2002, the City's IC/ID program did not indicate any significant problems, except for occasionally high levels of bacteria at a curb inlet or manhole leading up to the Seascape Sur outfall. A complete discussion about the activities of this problem, including its history, can be found in Section 13: Special Investigations.

Over the years, the City has responded to complaints and results from its dry weather monitoring reports to detect IC/IDs. The City's efforts have been successful, but in response to the requirements of the Permit, the City expanded

its program as described in the JURMP, Section 8.

Prohibitions

As noted in the City's JURMP, most non-storm water discharges are prohibited by Solana Beach Municipal Code (see JURMP Section 8.1.1). The City modified its Municipal Code and General Plan to ensure the City has sufficient legal authority to enforce the prohibitions of non-storm water discharges. The Solana Beach City Council adopted the amended Municipal Code and General Plan on February 19, 2002.

8.1.1 Significant Spills

The City operates a storm water hotline and email address that the community can use to report any violations or suspicious behavior they may encounter. This hotline can also be used to notify City staff of any significant spills that have occurred. Additionally, the City's website has a link to directly e-mail the Environmental Specialist to report violations or spills. The residents can also directly call City Hall and talk to the appropriate Staff member to report any significant spills.

There was *one significant spill* reported during this reporting period. The spill was reported on March 14, 2006 by a resident who stated that a discharge from a manhole outside his residence had been occurring for approximately two days. Once it was reported, City crews had it fixed within 45 minutes. The manhole was located on private property, but was a City maintained line.

The discharge flow was very minimal because the manhole was located at the top of a hill and only serviced a few homes. However, since the resident indicated that it had been occurring for two days, the City took all necessary precautions and treated it as a major spill. It did reach a storm drain upstream from the San Dieguito Lagoon, so County DEH authorities closed the beach and took samples. The samples required clean, and the beach was immediately reopened. The spill was caused by root blockage and was estimated at 3,500 gallons. All necessary regulatory agencies were notified and the spill was properly cleaned. The sewer line has been placed on the "hot spot" list for sewer cleaning and maintenance and will now be checked more frequently to monitor root buildup.

8.1.2 HHW Program

The City manages an extensive HHW Program that is discussed in detail in the Residential Component of this report. As reported previously in this report, 319 participants utilized the City's HHW program during this reporting period, up from 293 participants the year before.

8.1.3 Grease Trap Ordinance

In October 2004, the City Council adopted a grease trap ordinance that requires new, remodeled, and even *existing* restaurants to install a properly designed grease trap/interceptor. Previously, the City's Building Department would require all new and significantly remodeled restaurants to install a grease trap/interceptor, but it was simply a policy, not an ordinance. The City realized the need for an enforceable ordinance that would grant the City the power to inspect the traps to ensure proper installation and maintenance. These inspections will now be part of the annual storm water inspections and City staff will check maintenance records to ensure the traps/interceptors are being properly maintained. The ordinance allowed existing restaurants eighteen (18) months to install the grease traps/interceptors and enforcement began in April 2006.

8.2 Dry Weather Monitoring Program (DWMP)

The dry weather field screening data is an important part of the City's IC/ID detection program. The results provide information on whether pollutants are detected in the storm drain system, which can be used to identify potential illegal discharges or connections.

The specific purpose of this program is to detect by system inspection and by field screening and lab water quality testing the existence of either illicit connections to the storm drainage system or the use of the storm drainage system for illegal discharges. The basic requirements for the program are described in the Permit.

The purpose behind conducting tests of storm drains during dry periods is that illicit connections and illegal discharges are most apparent when they are not being masked by storm flows or ground water discharges. Theoretically, there should be no flow in the storm drains during dry periods, except for the limited amount of exemptions listed in the JURMP Section 8.1.1. Therefore, if flow is

present, an investigation must be conducted to determine where the flow is coming from to determine if there is an IC/ID violation.

Prior to the implementation of the JURMP (from 1993 to 2001), the City completed eight years of dry weather testing, primarily with the services of Kinnetic Laboratories/Cooper Engineering Associates, which collected the field samples and conducted the testing and analysis. The City's program was based on a systematic and comprehensive approach.

In 1993, the City inspected selected outfalls within the City limits and monitored selected sites along Stevens Creek. In 1994, major outlets from the City were tested, in addition to the sites monitored in 1993. The primary objectives in the 1995 through 1999 dry weather field screening programs were to target strategic locations where the potential existed for possible pollutant discharges or illicit connections, as well as carry out a comprehensive monitoring of the City.

For completeness and consistency in reporting, the City will briefly summarize the results from the DWMP over the past few years.

8.2.1 Historical Results

The 1995 dry weather field screening data characterized outfalls, identifying areas of non-storm water, non-permitted discharges as well as the identification of problem or potential problem areas. Sampling points were selected in an effort to survey in-line flow as well as inflow and outflow at the City limits. As a result of the 1995 field screening, dumping of grease into Stevens Creek was discovered at a local restaurant. The City notified the property owner, as well as the business owner, to cease such activity, which occurred.

The 1996 dry weather field screening data continued to characterize outfalls, identifying areas of non-storm water, non-permitted discharges as well as the identification of problem or potential problem areas. Results from the 1996 program indicated elevated bacteria levels at the Fletcher Cove Outfall (O-03A). Subsequently, the City constructed a low flow diverter (in 1998), which diverts the flow to the City's sanitary sewer system. The diverter pumps 40 gallons per minute, year round, 24-hours a day. Runoff is only discharged at Fletcher Cove outfall during storm runoff events that exceed 40 gallons per minute. The diverter helps eliminate the contamination at the Fletcher Cove Outfall caused by storm water runoff.

The 1997 dry weather field screening data included several sites that had been screened in previous years, two new sites and an independent study. The new sites were added upstream of two previously monitored sites in Stevens Creek to try to isolate the sources of pollutants that had been detected at those sites during screening in several past years. The independent study was conducted to isolate the source of bacteria that the San Diego County Department of Environmental Health indicated had been found at a commercial site contributing to Seascape Sur Outfall. Additional investigations were conducted in Stevens Creek and the cleaning of the commercial site was ordered. Results indicated no significant problems had occurred during this reporting period.

The 1998 dry weather field screening data included further investigation of locations with consistent evidence of possible pollutant discharges (high pH) in Stevens Creek, the continual monitoring and bacterial testing of Seascape Sur Outfall, and the continual monitoring of representative areas in the City. The samples from Stevens Creek Outfall were collected while the Del Mar Racetrack was in operation to determine if that location (and its activities) was having an effect on the elevated levels bacteria. The results indicated that the pH phenomena in Stevens Creek were due to leachate migrating through the concrete structure. However, the effects of the Del Mar Racetrack were found to be inconclusive, but several outfalls were cleaned of trash and debris.

The 1999 dry weather field screening data continued to screen the same sites as in the previous year and again included the Fletcher Cove Outfall. The 1999 DWMP was again conducted during the early part of the racing season in Del Mar to build on the data collected in the previous years. Fletcher Cove was added back to monitor the bacteria and the effectiveness of the City's structural Best Management Practices for the low flow diverter. Results from the testing did not indicate any significant problem areas and the effects of the Race Track were again inconclusive.

The 2000 dry weather field screening data continued to build on the database the City has established. The report identified two locations with high levels of coliform (both flowing to the Seascape Sur Outfall). The City conducted an investigation and sealed off an old leaking sewer lateral that was found to be located near the curb inlet of the upstream site with elevated bacteria counts. The City contracted with Kinnetic Labs to provide additional testing, which showed reduced counts during the follow-up tests. The 2000 report recommended that the City clean several sites of trash and debris, which was done.

The 2001 DWMP included ten sites for testing, including the same two sites that had elevated bacteria counts in 2000, and Fletcher Cove Outfall (where the diverter is in operation). Site S-13A and S-13 were also included to detect the effects of the Del Mar Race Track during racing season. Seven of the ten sites had at least some flow or ponded water; and one site (S-02) required a follow-up investigation based on elevated levels of fecal and coliform bacteria. Although the S-02 site had elevated bacteria levels, they were lower than the previous year, which led City staff to believe that the problem (for which repairs had been recently completed), was simply residual bacteria. As a result, the City ordered that the line between the curb-inlet and the outfall be cleaned.

The 2002 DWMP increased the number of sites from 10 to thirty-one, with a representation of all five watershed sub-basins in the City. Sites were selected ensuring that historical problem areas, drainage to sensitive water bodies and sites with potential discharge from commercial areas were all represented. This was the first year of dry-weather monitoring under the new Permit, which included specific rules and guidelines developed by the Copermittees to ensure consistency. Some of the keys findings include the following:

- Water clarity at all but one site was clear.
- Floating trash was observed at four sites and sedimentation was observed at four sites.
- At the majority of sites, there was no biological activity noted.
- One site had excessive algae growth, while four had some vegetation and algae growth.
- All sites had pH levels below the action levels agreed upon by the Copermittees.
- Several sites had elevated levels of Ammonia, which triggered a follow-up investigation.
- Elevated levels of detergents were found at one site; as a result, staff has scheduled some time to pass out “door-hanger” flyers to educate the surrounding community as to the cause of this result (which is likely due to car washing, which is prohibited in the City).
- Levels of the all of the following were below the Copermittee action levels: oil and grease, surfactants, Diazinon¹, Chlorpyrifos and dissolved cadmium, copper, lead and zinc.

¹ Results from the San Diego County Co-permittee 2001-02 Urban Runoff Monitoring Program, conducted by MEC Analytical indicated that the chemical Diazinon routinely exceeded water quality objectives in “nearly every watershed,” (page 8-1).

8.2.2 Results from the 2003 DWMP

The 2003 DWMP was the first year the City staff has conducted the program in-house. The new Environmental Specialist took over the duties from the City's consultant. However, the consultant provided assistance when needed and still performed the lab analysis of the samples. The City basically took the previous year's program and followed it to ensure consistency. The results were fairly consistent, with the same problem area that has plagued the City for many years. Again,, this report will summarize the results and include a detailed discussion (in Chapter 13) about the Special Investigation conducted to isolate this on-going problem.

Key findings from the 2003 DWMP include the following:

- There was only one site of major concern in the City, and that is at Seascape Sur. This problem, and the actions the City is taking to find the solution, is described in detail in Chapter 13, Special Investigations.

8.2.3 Results from the 2004 DWMP

The 2004 Dry Weather Monitoring Program found only one storm water conveyance line with an indication of illegal discharges to the City of Solana Beach's storm water system. The majority of the other sites visited were dry or damp. With the exception of the Seascape Sur area, sites that had water present did not have parameter concentrations high enough to cause great concern. For more information on this, please see the City's 2004 Dry Weather Monitoring Report (Appendix Z-1).

8.2.4 Results from the 2004 DWMP

Results from the 2005 dry-weather monitoring program were collected and analyzed by the City in January 2006 (but are already outdated at the time of this report). The 2005 program utilized the criteria established by the Permit (and the Copermittee Monitoring subcommittee). The City reviewed the results from the 2005 dry-weather monitoring program looking for the pollutants listed above, and in particular, COCs described in Table 4-1. The results indicated that the bacterial levels at Seascape Sur outfall (which drains to the Pacific Ocean)

continued to exceed the action levels established in the Permit and the IC/ID investigation continued (see Chapter 13).

The City continues the non-point source investigation (See Chapter 13), and utilized the results to help design its 2006 dry-weather monitoring program. Although the results from the 2006 monitoring program will be presented to the City after the writing of this report, preliminary results did not indicate any exceeded levels of COCs or the pollutants listed above, except the bacteria levels at Seascape Sur, which is described in Chapter 13. For the complete 2005 Dry Weather Monitoring Program, please see Attachment Z1.

8.3 Interim Action Levels to Trigger Follow-up Investigations

The City collaborates with the other Copermittees of Order 2001-01 in developing the standardized responses, procedures, processes, policies and programs by participating in the Dry Weather Monitoring Workgroup. This helps by providing consistency in messages, requirements and community expectations.

It should be noted that the City's 2005 DWMP was guided by the common response for interim action levels developed by the Dry Weather Monitoring Program Workgroup.

8.4 Complaints, Reports, and Investigations of IC/IDs

Prior to the implementation of the City's JURMP, the City Engineering Department handled the complaints regarding possible IC/IDs and/or urban runoff as they occurred. Complaints were investigated by the Principal Engineer, the Storm Water Intern, the Code Enforcement Officers and/or the Public Works Crew. As noted in the City's JURMP, the City conducted non-point source investigations when a discharge is noticed and reported by City staff, Public Works Crews, the public, or during routine inspections. This table is generated by the City's management database Digital Mapping that briefly describes the City's activities in conducting follow-up investigations for complaints received in FY 05/06. Briefly, it is a computer based GIS database that tracks violations and follow-up activities. The City continued one "Special Investigation," which is described in Chapter 13. The City's Code Enforcement Officers worked hand-in-hand with the Engineering Department to respond to the calls reporting potential IC/ID violations. This database is available at City Hall upon request.

The City continued the implementation of the violation tracking database (Digital

Mapping) that allows for internet based storage of violations, follow-up activities, inspections, contacts, and anything else required to effectively track storm water related issues. Digital Mapping is a GIS based mapping application that can track any information regarding a violation and store it down to the individual parcel where it occurred in the City. This helps tremendously with enforcement actions as all violations (verbal, written, citation) are stored with the violator's contact information so that increased enforcement actions are easier to levy with supporting documentation of previous violations. It is very difficult to track violations with paper copies or simple databases like Excel, but with Digital Mapping, it is very easy to search the database by violator's name, name of business, address, etc. Therefore, if a violation occurs in the field, a simple search of the database will reveal if the violator has been contacted before which would instantly increase the enforcement action taken.

In an effort to reduce the number of violations that occur on the weekends, the City has authorized a Code Enforcement Officer to work alternating Saturdays. It has come to the City's attention that a significant amount of violations are occurring on the weekends, when people know that no City staff is available for enforcement. The City hopes to monitor this situation and hopefully stop it altogether.

8.4.1 Complaint-Tracking Modification

The City developed a Contact/Complaint Excel database (Appendix S) to track daily reports of storm water contacts/complaints from the public, other city departments, or other regulatory agencies. This database is slightly different than Digital Mapping because *all* contacts are documented, whereas Digital Mapping only tracks actual violations. The Contact/Complaint database is updated every time a report of a possible violation is reported, but if the follow-up investigation does not result in an actual violation, it does not get reported in Digital Mapping.

8.5 Coastal Monitoring Program

The purpose of the City's Coastal Outfall Monitoring program is to detect IC/IDs through monitoring of the City's coastal outfalls. Prior to 2002, the San Diego County Department of Environmental Health designed and conducted the Coastal Outfall Monitoring Program. In 2002, the City utilized its own staff to conduct an inventory of its outfalls and design the monitoring program, which is currently being implemented.

During this reporting period, the Coastal Monitoring Workgroup, comprised of the cities that have storm drains that flow into the ocean and lagoons, met monthly to discuss pertinent issues and establish monitoring guidelines and reporting limits. Here is a brief description of the City's Coastal Monitoring Program for FY 05/06.

The Permit requires cities to monitor all flowing coastal and lagoon outfalls located within the City. The sampling frequency is once per month required during the wet season, and twice per month required during the dry season (two samples at each location, one at storm drain, one at receiving waters). The samples are taken to a State-certified laboratory for analysis of three parameters; Total Coliform, Fecal Coliform, and Enterococcus. The reporting limits for these parameters are different for samples taken at storm drains and samples taken in the receiving waters. Here is the breakdown:

<u>Location</u>	<u>Total Coliform</u>	<u>Fecal Coliform</u>	<u>Enterococcus</u>
Storm Drain	160,000 MPN	24,000 MPN	20,000 MPN
Receiving Water	10,000 MPN	400 MPN	104 MPN

The City monitors one coastal outfall (Seascape Outfall) and eight lagoon outfalls. The results for the outfalls are as following:

- Seascape Outfall (Coastal Outfall): There were no receiving water violations for this outfall. The storm drain outfall frequently exceeds the water quality parameters and an ongoing IC/ID investigation is being conducted to identify the source of the bacteria (Chapter 13).
- Highway 101 North Outfall (Lagoon Outfall): There were no samples taken because the outfall was always dry. This outfall continues to be monitored even though there has never been flow.
- East Side Railroad Tracks Outfall (Lagoon Outfall): Same as above.
- Rios Access Road Outfall (Lagoon Outfall): Same as above.
- Rios Road Outfall (Lagoon Outfall): There were no samples taken from this outfall due to its inaccessibility. In order to access this outfall, it would require the monitor to track over environmentally sensitive habitats in the San Elijo Lagoon. In talking with the San Diego County Park Rangers, it

was determined that this would not be a good area to disturb because of the sensitive habitat. The area around the outfall was monitored to determine if anything looked suspicious.

- Santa Inez Outfall (Lagoon Outfall): Same as Highway 101 North outfall.
- Santa Carina Outfall (Lagoon Outfall): There were no samples taken from this outfall due to its inaccessibility. The outfall is located at the bottom of a steep canyon. The brush was removed for fire concerns, therefore making it impossible to scale. This site was also still monitored to determine if anything looked suspicious.
- Santa Helena Outfall (Lagoon Outfall): Same as Highway 101 outfall.
- Santa Luisa Outfall (Lagoon Outfall): Same as above.

Although no samples were taken at the lagoon sites, they were all still visited and monitored according to Permit standards. These sites will continue to be monitored for the FY 06/07 to determine if anything needs to be altered in this Monitoring Program. The Seascape Outfall has had historical problems and is the current target of an ongoing IC/ID investigation. This is discussed in detail in Chapter 13. For complete results, please see the Coastal Outfall Monitoring Annual Report submitted with the County Unified URMP.

8.6 Wet Weather Monitoring

The Copermittees of Order 2001-01 collectively hired MEC Analytical again to continue the Wet Weather Monitoring Program (WWMP) for 2005/06.

Watersheds that receive drainage from the City (San Dieguito River) that were included as part of the FY 2005/06 WWMP, did not indicate an exceedence of Diazinon levels. In addition, it should be noted that the receiving waters in the San Elijo Lagoon also did not indicate an exceedence of Diazinon levels, as it has in the past. For the San Dieguito River, only two COCs were identified, Total Dissolved Solids, and to a lesser extent, Fecal Coliform. The Carlsbad Watershed still revealed high levels of bacteria, TDS, and Total Suspended Solids. The complete results for the two watersheds can be found in the respective WURMP Annual Reports, as well as the County Unified URMP.

8.7 Public Education

To educate the public about the need to improve water quality and the vast requirements of the Permit, the City passed out brochures, published articles in the City's newsletter (*Shorelines*), placed "door-hangers" on selected residential and business properties, operated a storm-water-hotline ([858] 720-2512) and email address, and required compliance of private and public construction sites.

Details about these various activities can be found extensively in Chapter 9 (Education Component) of this report and in the City's JURMP.

8.8 New Activities and Improvements in FY 06/07

The City will analyze its 2006 DWMP in FY 06/07, review the results in detail and integrate the findings into program activities. City staff will evaluate the results to determine areas within the city (residential and commercial etc.,) that need additional education to improve the water quality in the region. The City will use the results from the previous DWMP to design the 2006 DWMP and attempt to conclude the special investigation (see Chapter 13). The ongoing problem at Seascape Sur, which was detected again in this reporting period's Coastal Monitoring and Dry-Weather Monitoring Programs, will be discussed in greater detail in Chapter 13 (Special Investigations).

Additionally, City staff will begin enforcing the new Grease Trap Ordinance, starting in April 2006. Staff will inspect the grease traps/interceptors during annual storm water inspections to ensure that proper maintenance is being conducted and records kept on-site. Analysis on the effects on sewer spills will also be conducted in the next few years to see if the ordinance has had a successful impact on reducing spills as a result of grease build-up.

Additionally, it is anticipated that the WURMP workgroups will begin analyzing the Dry Weather Programs of participating jurisdictions and begin tailoring some of those activities to address high priority pollutants, and the activities/sources associated with them. In the years past, jurisdictions would self analyze their respective programs to address high priority locations and sources, but with the added emphasis on WURMP activities stressed by the RWQCB staff, these issues will now be attacked on a watershed basis. This has the potential to provide more knowledge and resources that were previously limited by staff resources, but now with the assistance of neighboring jurisdictions, this may prove very valuable. This will be analyzed more thoroughly in next year's Annual Report.

8.9 Summary

As evidenced by the Copermittee WWMP, the City's DWMP, the City's "team approach" in responding to complaints, and the improvements made citywide in procedures and investigative processes, the City is proficient and effective at detecting and eliminating IC/IDs, and working to change the human behavior that has caused negative impacts on water quality.

Recognizing that human behavior is the basis of many non-point source pollution problems, the City quickly acts on reports from residents, City staff, and other agencies to follow up on problems as soon as they are reported. The City altered the storm water hotline to link directly to the new Environmental Specialist's voice mail box so that calls can be consistently monitored and acted upon. The City has effectively utilized the administrative fine process which has proven to be a very efficient and timely procedure in issuing citations, which will reduce the potential for pollution into the City's MS4.

Some of the City's key accomplishments for this component include:

- Implemented an improved process to promptly investigate complaints and reports of IC/IDs.
- Participated in the 2005 San Diego County WWMP.
- Operated a storm water hotline and email account 24/7/365 to report IC/IDs.
- Began implementation of the Grease Trap Ordinance that requires all new, remodeled and existing restaurants to install a grease trap/interceptor.
- Implemented the complaint/violation interactive database (Digital Mapping) which has helped streamline the IC/ID investigations.
- Implemented the Contact/Complaint Excel database to track daily reports of storm water contacts/complaints that do not necessarily make it into Digital Mapping because enforcement is not required.

CHAPTER 9

Education Component

CHAPTER 9: EDUCATION COMPONENT

In accordance with Permit Section F.4, this section of the report describes the City's efforts to implement a community education program, as described in the City's JURMP.

In each Annual Report to the RWQCB, this section will include a description of the City's efforts during the reporting period and possibly post-reporting period if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or Permit compliance. In addition, this section of the report will include the City's planned educational efforts for the following fiscal year.

During this reporting period, the City continued the comprehensive Education Component of the JURMP (Section 9) that was developed during last reporting period. The activities were expected to increase knowledge among the residents, business owners, and those who do business (such as contractors) within the City. The City developed the program based on the requirements of the Permit and continued implementation during this reporting period.

During this reporting period, the cities of Carlsbad, Del Mar, Oceanside, Escondido, Vista, San Marcos, Encinitas and Solana Beach continued the North County Education Group that was formed to develop strategies and programs to provide consistent messages to the communities of San Diego North County. This basis for this group is to have a more effective educational program than would be if the cities offered divergent messages. The group consists of storm water program managers, assistants and staff members who all bring individual talents, experience and interests to the program.

As a collaborative, the group is able to obtain lower cost for educational tools (such as brochures, flyers, handouts, small tokens [pens, keys, etc.]), which provides a financial benefit to the agencies and thus, the community.

The North County Education Group has been meeting on a monthly basis through this reporting period, in which the City has been an active participant (for a summary of meeting dates, jurisdictions in attendance, and topics discussed, please reference the Carlsbad WURMP Annual Report).

The group has been able to assist each other in developing a consistent message incorporating the interests and concern of each agency. For example,

the City of Solana Beach prohibits by municipal code the runoff from car washing to run onto City streets and/or enter the City's MS4 system. However, no other North County cities have a similar strict municipal code. When brochures and handouts have been created, flexibility among the agencies was required. The cities that allow car washing were accommodating in allowing the strictness of the message to incorporate the regulations of Solana Beach, and Solana Beach permitted a *moderately* restrictive message to be published for distribution in their city.

The collective decision-making process has also generated cooperative working relationships among the agencies, which was extremely beneficial when the development of the Watershed Urban Runoff Management Program(s) began and in working together to complete various storm-water-related tasks. The community also benefits from the consistent "one message" approach rather than six or seven different rules and regulations.

9.1 *Pollution Prevention through Education – Jurisdictional Activities*

The City's storm water program is comprehensive. Not only are there many components to administer, there are many different programs going on simultaneously throughout the County. The City participates in jurisdictional, watershed and regional activities. Each of these has separate and distinct educational components. The watershed activities have been recently defined and are in the early stages of implementation; since this is a jurisdictional report, there will not be much discussion about those in this Annual Report (For more detailed information on WURMP related activities, please see the WURMP Annual Reports for Carlsbad and San Dieguito). The regional activities have been primarily described in the Copermittee *Unified Urban Runoff Management Program Annual Report for Fiscal Year 2005-06*, which has been submitted by the County and incorporated herein by reference. However, some of the activities will be summarized in this section of the report (see Regional Activities).

9.1.1 *Staff Training*

One of the most important aspects of the City's educational program is to educate its staff members. This turns out to be a relatively easy task for this City in that there are only about 70 full time staff members. All staff members are required to attend an all-hands citywide staff meeting each month. Staff determined that the best opportunity for training would be at the monthly staff meetings.

The City's Environmental Specialist prepared several different training sessions. These include:

- Delivered a SUSMP educational presentation to the Community Development Department. This was a power point presentation developed by the North County Storm Water Program to deliver a consistent message for all planners throughout the region.
- Delivered presentations at City Council meetings regarding several different aspects of the storm water program. Council meetings are televised throughout the City and meeting minutes and action agendas posted online and available at the City Clerk Department.
- Delivered a Sewer Overflow Response Plan training to the Public Works Staff to emphasize proper detection, prevention, clean-up and reporting practicing to reduce number of sewage spills that enter the City's MS4 System.
- Distributing handouts describing general BMPs.

The City believes that all current staff are adequately aware of the storm water issues, and all new staff will be trained as appropriate upon arrival. However, due to the constantly evolving storm water field, the City will continue the periodic educational trainings at future City all-hands staff meetings.

9.1.2 Annual Beach Cleanup Days

Based on the results of the baseline survey; workshops, brochures, flyers, and articles were developed to promote understanding about storm drain pollution.

The City of Solana Beach, in cooperation with I Love a Clean San Diego County, Inc. coordinates an annual "Beach Cleanup Day". These events are volunteer beach clean ups. As noted in this report, in September 2005, the City hosted its annual clean-up day and 71 volunteers collected 290 pounds of trash 136 pounds of recyclable glass and plastic materials that might have otherwise ended up in the landfill or worse, local waterways.

9.1.3 Storm Drain Tile Marker Installation

The City inventoried all of its storm drains (inlets and catch basins) and has the locations in GIS format. The inventory list includes addresses, cross streets and

a GIS bit-map. Stenciled tiles are affixed to each storm drain inlet or catch basin location, which reads, *"No Dumping! This drains to the ocean."* The City now requires all new or re-development projects that install a storm drain curb inlet or catch basin to include the stenciled tile. An extra supply of tile markers is kept at the City's Public Works Yard for all City projects as well as for private contractors to install on their projects to provide a consistent message throughout the City.

During this reporting period, a member of the community (through ILACSD) organized a large-scale volunteer event for her children and his friends to scale the entire City and look for storm drains that need a replacement tile. City staff worked with her to locate areas that might potentially need some tiles and supplied her with the tiles, adhesive, and a map of all City storm drains. The group was successful in ensuring all storm drains in the City have a tile affixed to it. In addition, the City Public Works Crew actively inspects and replaces cracked and/or missing tiles when detected in the field.

9.1.4 Local Community Events

The City of Solana Beach hosts an annual block party called Fiesta de Sol. Each year at the block party the City has a booth promoting to the participants no dumping or littering and to keep our beaches clean. The City also coordinates with Solana Center with their booth promoting proper disposal of HHW and recycling (oil included) in the City. The City passes out *"Only Rain in the Drain"* brochures, community surveys, and displays the watershed poster, *"We All Live in a Watershed..."* Staff talk with residents about the importance of protecting the water resources and educated them on the new storm water regulations. This reporting year's Fiesta Del Sol occurred on June 3 and 4, 2006. There were approximately 700 visitors to the City's booth during this year's event, and City staff distributed storm water brochures and informational flyers to those who visited the City's booth.

The City also partnered with a local community group to put on a Beach Blanket Movie Night on 8/27/2005 (Appendix L). The event was billed as a "Night of FREE Surf Films, Family Fun and Environmental Education!" The City worked closely with the event organizers and provided recycling containers, environmental educational material pertaining to storm water issues, and used oil recycling information. The event was very well attended and a huge success, and will continue to occur annually. This is a great way to promote environmental awareness at a free event to the community.

9.1.5 School Programs

The Solana Center is a local organization that writes articles for the City Newsletter (*Shorelines*) and presents educational programs in the City schools regarding storm drain pollution using the watershed model (Enviroscape) and fun handouts and items for the kids. Solana Center is paid through the City's solid waste contract, as well as a HHW grant, to provide educational opportunities to the community. City staff is in regular contact with the Solana Center and is confident that their program(s) is educational and informative for the children. The presentations are provided free to the local schools, and the information provided is invaluable.

City staff members also contacted local high schools and have offered to come and talk with the children about water pollution and what they can do to help. The following table shows what school/community education has taken place during this reporting period:

School / Adult Community Education

Date of Event(s)	Event Title	Estimated Audience	Specific Audience	Location	Jurisdiction
July 18-22, 2005	Ecology Camp	30 per day (150 total)	Grade 1- Jr High	La Colonia Community Center (Field Trips Included)	Solana Beach

The Ecology and Lagoon Exploration Summer Day Camp is for children entering 1st grade to junior high. This camp is filled with games and crafts that enlighten children's awareness of the environment and include special field trips to immerse the children in the local environment and teach environmental stewardship.

9.1.6 Workshops

As discussed in previous Annual Reports, the City made a decision to discontinue local workshops due to non-interest from the community. The City is very small and does not contain many businesses. Therefore, the City has found that education is more efficient and effective if done on a more personal level. Staff often interacts with the public out in the field, where they can educate them at the time a violation is witnessed. Additionally, Staff educates the businesses during the annual inspection process, where we have their undivided attention. This has proven to be a very effective tool in educating the public, along with the quad-annual newsletter articles and periodic mail-outs. Additionally, the City is very involved in the watershed groups and during this reporting period there was

a conscientious effort to standardize the public education to bring a more consistent message throughout the region. It was decided that collaboration on regional workshops focusing on watershed specific activities and issues would be a much more efficient use of the limited resources in various cities. If staff could develop larger workshops to target specific audiences, it was decided that this would be much more effective in targeting specific pollutant sources. We figured we could get more “bang for our buck” than individual workshops held in single jurisdictions that attracted one or two participants from the community.

The City also believed that participating in the regional program (at an even higher level than watershed) would be another efficient, effective approach to community educational workshops. If, in the future, the City notices an increased desire in the community to resume the workshops, they will be immediately resumed. In the meantime, the City will continue to participate in the Watershed and Regional Outreach Programs, helping to promote a consistent message throughout the region.

9.1.7 Educational Brochures

The City has participated with the North County Educational Group to develop many effective educational materials. The handouts and brochures are included in the Carlsbad WURMP Annual Report.

- “*Only Rain in the Drain!*” describes the importance of protecting the valuable water resources and the problems that can be caused by storm water pollution. It also provides a list of BMPs to help prevent pollution. The brochure also provides valuable resource numbers: a *direct number for each jurisdiction* is provided, as well as the County’s Storm water hotline. The brochure is available at City Hall, the City Fire Department and Marine Safety, each staff member was provided a brochure and brochures were personally distributed to local businesses. The City’s Public Works Crew and Code Enforcement Officers deliver these every day to the community when small violations are observed. Since these staff members are out in the community everyday, this has proven to be an effective means of public education. Larger infractions are reported to the Engineering Department or Code Enforcement Department for follow-up.
- The door-hanger “*Help!*” provides a method for staff members to indicate to residents that pollutants were found near their home. The brochure is in English and Spanish, which is helpful to residents. It is typically hung on a

resident's door, provides a place for business cards and under the cards, (should they become misplaced) the brochure lists a contact number for *each jurisdiction*. The back of the brochure provides BMPs for vehicle maintenance, car washing, hazardous materials handling, recycling, litter, and sidewalk/driveway debris. The City distributed approximately 150 door hangers during this reporting period..

To assist the public in directing their calls for complaints and service, the City operated a 24-hour storm water hotline telephone recording (858) 720-2400 ext. 2512. The number is connected directly to the Environmental Specialist's voice mail (so it can still remain anonymous, if necessary), so that violations can be investigated immediately and the proper action taken *while the violation is occurring*. The City informs the public about the hotline number at City Council meetings, on flyers and handouts, and on business cards and on brochures.

9.1.8 City Newsletter (*Shorelines*)

Chapter 2 contains all the information regarding the *Shorelines* newsletter and gives a brief description of the articles included during this reporting period. The articles are also included in Appendices E, F and M.

9.1.9 Web Site

The City continues to utilize all the benefits of recent technological breakthroughs to educate the community about the various environmental programs, including the storm water program. On the City's Web site (www.ci.solana-beach.ca.us), a link to the City's storm water page is shown when a visitor first clicks on the City's main page. The City's JURMP, SUSMP, and WURMP reports have been posted and requests for comments have been solicited.

As mentioned in last years Report, the complete overhaul of the City's website has been finalized during this reporting year. The website is much more user friendly and staff has the ability to make instantaneous changes to individual web pages as necessary. This allows the Environmental Specialist to update the storm water page as things develop and documents/forms become available. This is much more efficient and effective than the previous design as requests to the IT department do not have to be made and processed, greatly reducing waiting time. Additionally, important forms can be accessed online by the public reducing the need to come to City Hall to pick up documents and forms.

In local articles in the North County Times, the City's *Shorelines* Newsletter, all

brochures and handouts and on all business cards, the City's Web site is listed. Although the educational success of the Web site it not measurable at this time, staff is certain that the community has opportunity to learn about the various requirements of the Permit.

9.1.10 Business Community

The City has initiated several methods to educate the business community about storm water pollution prevention.

First, the City prepared a letter explaining BMPs, storm water regulations, and business community responsibilities. The letter was sent to each high-priority business in the City, along with the appropriate business-type BMPs. During inspections, Staff checks to see that the BMP list is posted in a highly visible area. If not, then Staff will reissue the list and require it to be posted at all times. Businesses are subject to enforcement if the list is not posted during re-inspection.

Second, the City conducts a two-tiered inspection program (see Commercial Component, Section 4.4.3, for more details). Through the Advisory Inspections, which have already taken place prior to this reporting period, staff members educated the business owners about the requirements of the Permit and the City's various storm water programs. A survey was given to the business owner/manager and staff spent a significant amount of time discussing the various regulations, and the importance of altering human behavior to improve water quality. Given the City's close proximity to the Pacific Ocean and sensitive lagoons on either side, staff is able to show a direct link between commercial activities and impact on water quality. Next, Staff conducted Enforcement Inspections, to ensure that the businesses are using the proper Best Management Practices to protect the City's waterways. These inspections were much more thorough and increased enforcement actions, including fines, if necessary. During this reporting period, approximately *all* businesses that were inspected were inspected under the Enforcement Inspection protocol. Although some businesses had minor issues (trash lids not closed, parking lot not swept, etc.), there were no major infractions to report and no fines were issued.

Finally, the staff members have visited various businesses, left brochures, including door hangers when pollutants have been found. In addition, staff members, including Code Enforcement Officers target educational messages (letters, visits, etc.) to businesses when pollution is found in their area. Staff has

been proactive in their approach to educating the business community.

9.1.11 Fletcher Cove Kiosk Education

At the request of the Marine Safety Department, the Environmental Specialist put together an educational display at the kiosk at Fletcher Cove. The display contained storm water information such as good housekeeping BMPs, residential BMPs, and water quality information. This has been a very popular display, and it will be updated periodically to include new information.

9.1.12 Additional Signage at Seascape Sur Outfall

The City was notified by the Marine Safety Department that people have been washing their hands in the discharge from the Seascape Sur Outfall. Since this outfall has had historically high levels of bacteria, the City wanted to prevent this from happening for public health/safety reasons. The outfall already had a warning sign attached to it, however, the City Engineer ordered another warning sign be placed directly in front of the outfall sticking out of the sand. This will hopefully prevent people from doing this again, and it appears to be working so far, as there have been no more reports from the Marine Safety Department.

9.1.13 Special Events Permit

As reported in previous Annual Reports, the City adopted a Special Events Permit that is required for group events (Triathlons, Block Parties, Birthday Parties, etc.) of over 25 people on public property. A storm water section is included in the Permit, with requirements regarding the event and adhering to all storm water regulations. This has proven to be a great educational tool, as most applicants tend to ask questions about this. It is a great tool to educate the public about storm water regulations. For an example of the Special Events Permit Conditions of Approval see Appendix T.

9.2 Pollution Prevention through Education – Regional Activities

The regional activities of the Copermittees of Order 2001-01 are for the most part, described in the Regional Unified Annual Report. However, for purposes of completeness, some of the activities that the City has participated in are described in this section of the report.

9.2.1 Regional Monitoring

As noted in Chapter 8, the City participated with the Copermittees of Order 2001-

01 in conducting a region-wide wet-weather monitoring program. Although no mass loading stations were located within the City, one of the testing sites (San Dieguito Lagoon) is a receiving water body from the City's drainage.

The 2005-06 program is described in detail in the Regional Unified Annual Report and in the report issued by the consultant, MEC Analytical. MEC's report will be submitted with the Unified URMP, and any data collected will be reported and discussed in that report.

9.2.2 Model Programs

One of the most important regional educational components is the ability the Copermittees have developed to help educate each other. This has been accomplished through routine meetings, sharing of project assignments, and most significantly, the development of model guidelines for the JURMP, SUSMP, and WURMP(s). Not only have the model guidelines produced a fairly consistent message to educate the community, the model guidelines have established collaborative working relationships among municipal, county, and state agencies, which is remarkable.

9.2.3 Linking to Regional Resources

The City posts links to the regional Web sites (Project Clean Water and Think Blue). In addition, the City posts information on reporting storm water violations to the County's Regional Storm water Hotline on various educational materials. Linking the community together provides continuity, extension of resources, and economies of scale for the community and the agencies, and contributes to a greater understanding that we are all one-part of impact on water quality. It's important to educate the community that water-quality program should not and do not stop at jurisdictional (or watershed) boundaries.

Through the www.projectcleanwater.org Web site, San Diego County has been able to link many community members to various storm-water/urban-runoff-related programs of interest.

9.3 Pollution Prevention through Education – Watershed Activities

In accordance with Order No. 2001-01, Section J, each municipality is required to participate in the development and implementation of a Watershed Urban Runoff Management Program (WURMP) for each hydrological unit in which the City's jurisdictional boundaries lie. The northern portion (10%) of the City resides within

the Carlsbad Hydrological Unit and the rest of the City resides within the San Dieguito River Hydrological Unit. As such, the City is required to participate in the development and implementation of two WURMPs addressing the runoff concerns of each watershed.

During this reporting period, the City actively participated in the development and implementation of the Carlsbad and San Dieguito WURMPs.

In short, each WURMP contains the following 1) a time schedule for developing a comprehensive map of the entire Watershed including all land uses, the storm drain systems, and inventories of all commercial, construction, industrial, municipal and residential areas, 2) a plan to ascertain the types of pollutants that exist in the water bodies throughout the watershed and a prioritization schedule to eliminate the pollutants; 3) a program to educate the entire community about issues related to urban runoff; 4) methods to provide the community opportunities to participate in the program; 5) plans to collaborate with Copermittee agencies to strategize, review and analyze information; and 6) an effective program effectiveness strategy and methods to conduct annual evaluations.

The City has been actively involved in the implementation of both WURMPs, and has brought materials developed in each WURMP to the residents of Solana Beach. The Carlsbad WURMP workgroup has been extremely effective in implementing almost all aspects of the WURMP, and are way ahead of the schedule developed for the WURMPs. The following list is a brief description of all the notable accomplishments of the Carlsbad WURMP workgroup during this reporting period:

- Developed materials for public distribution providing a consistent message to all residents in the North County Watershed.
- Sought funding for projects involving multi-agency participation that assist us in raising watershed and storm water pollution prevention awareness.
- Maintained inter-jurisdictional collaboration focused on creation and implementation of cost effective watershed awareness and storm water pollution prevention education projects.
- Distribution of an informational doorhanger on storm water pollution prevention for residents.

- Storm water “click message” pens.
- Put Toxic Waste in its Place booklet.
- Pet Waste Bacterial Load Reduction Survey and pet waste bag dispenser distribution to target high priority pollutant – bacteria.
- Integrated Pest Management Landscaping and Gardening Workshops.
- SUSMP development workshop.
- Revised education/awareness surveys.

The San Dieguito WURMP has also been very effective in implementing the required activities established in the WURMP. The following is the four-pronged education and outreach approach developed during the reporting period:

- Incorporate core watershed principles into existing educational programs.
- Promote watershed stewardship in communities.
- Develop educational strategies to target priority pollutants within the watershed.
- Achieve milestones as determined through annual assessments.

The actual achievements and plan for future educational efforts are described in detail in the San Dieguito WURMP Annual Report. However, a few of the highlights of the program during this reporting period are the following:

- There were a variety of public presentations and media opportunities that took place during this reporting period. The following is a table showing all the events that took place in the San Dieguito Watershed (taken from the WURMP)
- Established environmental camps and after school programs.
- Initiated the process of developing a regional IPM program.

For more information on these particular activities, please refer to the City’s

individual WURMPs Annual Reports.

9.3.1 Change in Direction for WURMPs...

The Carlsbad and San Dieguito Watershed URMP Copermittees focused their efforts on the high priority water quality issues in the watershed during the 2004-05 reporting period. The Copermittees received two enforcement letters from the RWQCB, 13267 Directive (October 8, 2004) and the Watershed URMP NOV's (June 2005), for not implementing watershed activities adequately. These letters have focused the Watershed URMP program; forcing the Copermittees to re-evaluate and expand their watershed activities. The RWQCB's 13267 Directive provided a list of potential watershed activities. Based on this list, the Copermittees revised their definition of a Watershed Activity and expanded the list of activities implemented within the watershed.

For more information on these particular activities, please refer to the City's individual WURMPs Annual Reports.

9.4 New Activities and Improvements for FY 06/07

The City will continue to educate the community through participation in the North County Education Group, the Regional Education Group, and using brochures, flyers, the *Shorelines*, and community/regional events. The City will also use the results from its DWMP to inform residents in areas that the data showed elevated levels of constituents of concern or materials that degrade the quality of water. The City plans to develop additional educational brochures that will be industry specific and plans to actively participate in the implementation of the regional IPM program. The City also anticipates working more with the San Dieguito Watershed to develop educational materials specifically for that watershed. The City does currently use all educational materials developed by the Carlsbad Watershed throughout the City (not just the section actually in the Carlsbad Watershed), however, there are a few slight differences in the watersheds that will require specific materials. For example, the COCs for the San Dieguito Watershed are slightly different than in Carlsbad, therefore the materials should reflect this.

As a result of the 13267 Directive Letter discussed above, the cities have changed their approach to watershed issues and plan on taking a more direct

approach in implementing activities that address specific pollutants of concern within the watershed. Following the direction of the RWQCB, the watersheds have changed their approach slightly to integrate more pollutant based activities in an attempt to reduce COCs in the watershed and improve water quality. This appears to be the direction the RWQCB wants to go and the Copermittee's are eager to work with the RWQCB to improve the water quality throughout the region.

The City anticipates the adoption of the revised Storm Water Permit during the next reporting period. This will most likely have strong implications and ramifications to the watershed activities listed above. It is anticipated that minimum activity levels will be established and more acutely described. Activities will be required to address high priority pollutants, and more directly, their sources within the watershed. This will require working closer and more collaboratively with neighboring jurisdictions, which the City is willing and enthusiastic about.

9.5 Summary

The City has been successful at implementing a jurisdictional program, collaborating to implement a regional program, and developing a watershed-focused educational program. The City is certain that with its strong messages, meaningful content and integrated program, the community will become more knowledgeable about pollution prevention methods. As mentioned above, the focus of the watershed groups has slightly changed in response to the RWQCBs 13267 Directive Letter, and next year's activities should reflect these changes. The City eagerly anticipates working collaboratively with the RWQCB in developing and implementing the educational component of the new Permit, which is currently being developed by the RWQCB.

The City generally relies on educational material developed by the watershed and regional groups, as it has been agreed upon that a consistent message should be implemented whenever possible. However, much like the differences in the watersheds throughout San Diego County, there are slight differences in how individual cities implement and enforce the Permit. Therefore, it will always be necessary to develop some jurisdictionally specific educational materials for the benefit of the community.

CHAPTER 10

Public Participation Component

CHAPTER 10: PUBLIC PARTICIPATION COMPONENT

In accordance with Permit Section F.6, this section of the report describes the City's efforts to involve the public in the City's storm water program(s) by providing opportunities in which the public can participate. In each Annual Report to the RWQCB, this section will include modifications to the City's plans to provide opportunities in which the public can participate. In addition, this section of the Annual Report will describe the City's efforts during the reporting period. Also, a summary of activities conducted post-reporting period may be included if the activity is deemed essential to understanding the City's efforts at reducing urban runoff or Permit compliance.

Prior to the implementation of the JURMP (February 2002), the City did not have a specific "public participation program." However, many members of the community have taken an active role in environmental issues over the years, which is most likely due to the City's proximity to the Environmentally Sensitive Areas (ESA) such as the ocean and lagoons. As a result, the City was the first city in San Diego County to have curbside recycling (due in large part to the efforts of Solana Recyclers). The City has also been proactive in its approach to urban runoff and pollutant mitigation and reduction, by implementing a strict Municipal Code regarding Storm Water Management (adopted in 1993) and Grading and Excavation regulations to prevent erosion during construction.

As a result of Order 2001-01 (Permit), the City was required to design a specific program to ensure that the public had ample opportunities to learn about controlling urban runoff and assist the City in "spreading-the-word."

The Public Participation Component is closely related to the Educational Component. However, while the educational program describes activities the City engaged to educate the public, public participation will describe activities the Public engaged in (or were provided an opportunity to do so).

During this reporting period, the City continued the comprehensive Public Participation Component for the JURMP (Section 10) developed during the previous reporting periods. The program included activities that complemented the educational program with a goal of providing opportunities to ensure that residents, business owners, and those who do business (such as contractors) within the City, have an opportunity to learn about the negative impacts of urban runoff, understand the City's regulations relating to protecting the environment,

and participate in the development of storm water program involving the community. The City developed the program based on the requirements of the Permit and continued implementation during this reporting period.

Chapter Content

It is important that the reader understand that much of the public participation program is integrated into other program components and as such, much of the information within this chapter has been presented elsewhere in this report. However, to provide consistency in reporting, to ensure Permit compliance, and to present stand-alone chapters in this report, this section will include all opportunities for public participation, even if those same events were described in other chapters. However, for purposes of reducing redundancy, some events may be summarized in this chapter with a reference to other chapters for details.

10.1 Community Events

10.1.1 Fiesta Del Sol

The City of Solana Beach hosts an annual block party called Fiesta de Sol. Each year at the block party the City has a booth promoting no dumping or littering and keeping our beaches clean. The event was held on June 3 and 4, 2006. The City also passes out “*Only Rain in the Drain*” brochures and talks with residents about the importance of protecting the water resources. Solana Center also hosts a booth through the City of Solana Beach and promotes environmental stewardship, including used oil recycling and HHW information. Approximately 700 people visited each booth over the course of two days.

10.1.2 Beach Clean Up Opportunities

During this reporting period, Coastkeepers (formerly Baykeepers) and the nonprofit group I Love A Clean San Diego (ILACSD) hosted the 21st Annual California Coastal Cleanup Day in September 2005. The City hosts two locations, one at Fletcher Cove to clean the beach, and another at San Elijo Lagoon to clean up the lagoon.

Other opportunities to clean up local beaches have been hosted by neighboring cities, which the City promotes at City Council meetings and distribution of flyers.

10.1.3 Adopt-A-Beach Program

The City works collaboratively with I Love A Clean San Diego in the Adopt-A-Beach Program. The Program consisted of local businesses sponsoring a beach and agreeing to clean up the beach at least 3 times a year (1 time for schools). The City thought this was a great idea and extremely beneficial to the community, so approved our beaches being included in the program. So, four beaches (Tide Beach Park, Fletcher Cove, Del Mar Shores and Seascape Sur (approved this reporting period)) are all “adopted” and are cleaned at least three times a year. The signs are updated each year with new “adoptees” and City staff installs the new placards on the signs. This has been a very positive experience, as the businesses notify us of the dates for the clean-ups and staff helps them prepare for the event. So with this program, the City’s beaches have been cleaned three times a year each, resulting in 30 additional beach cleanups since the program started (3 beaches for first three years, 1 new beach this year)

10.1.4 Beach Blanket Movie Night

As mentioned in the previous Chapter, the City joined with a local community group to put together a free community event called the Beach Blanket Movie Night. This event consists of placing a large movie screen at Fletcher Cove and showing environmentally themed movies for the community to enjoy. City staff took this opportunity to distribute storm water educational materials and promote recycling efforts throughout the City. This was a very well attended and received event and will continue in the years to come.

10.2 Community Workshops

As discussed in previous years’ Annual Reports, the City has discontinued the “community workshops,” due to lack of interest within the community. City staff attempted to promote interest within the community in a variety of ways, however the workshops hosted prior to this reporting period were not well attended. City staff decided to postpone the workshops until more interest is shown by the community. However, watershed and regional workshops are still being conducted and Solana Beach will continue to be actively involved and volunteer locations within the City to host some of the workshops.

10.3 City Council Meetings and Workshops

The Solana Beach City Council meetings are televised, which provides an

excellent opportunity for the public to participate in local government. In addition, the City's Agenda is published *online* (available on its Web site), which provides the public an opportunity to readily access the upcoming Council reports.

A new development that is now being taken advantage of is the implementation of scrolling messages during televised City Council Meetings. Staff has taken advantage of this new tool to place storm water messages and notifications for upcoming presentations, events, etc. This has proved very valuable and will continue to be utilized by City staff.

10.4 Copermittee Meetings

Most Copermittee meetings are open to the public to provide them an opportunity to participate in the process of developing the regional and local programs. Most Copermittee meetings are announced on the Project Clean Water Web site (projectcleanwater.org) and the City's Web site also links to the regional sites.

10.5 Collaborative Community Partnerships

The City has developed collaborative partnerships with various local organizations, which provide the public an opportunity to participate in improving water quality and/or the City's storm water program(s).

The City works closely with the Solana Center, which provides instruction to local school children on the harmful effects of pollution, the positive impacts of pollution prevention and the need to keep pollution out of the City's storm drains. Solana Center also provides the following services for the City:

Referral Phone Calls:

Solana Center staff provided recycling telephone referral services for residents on the Cities of Carlsbad, Del Mar and Solana Beach. Solana Center continues to receive referral calls mainly because Solana Beach residents still have residential curbside bins and commercial collection carts with the Solana Center phone number on them, even though the collection services were discontinued by Solana Center in 1996.

Solana Center staff spent time educating the community about CRV updates, composting information, and how they easily incorporate recycling activities into their daily lifestyle. Community phone inquiries included:

- The locations of local recycling centers and hours of operation.
- Redemption values of materials.
- Basic information of what materials can be or cannot be recycled in curbside recycling programs.
- General recycling information for commercial businesses.
- Requests for new and replacement curbside bins.
- Services on commercial recycling carts.
- RotLine – Answering community questions regarding composting and vermicomposting.

Less Toxic Yard and Garden Workshops:

Solana Center staff conducts presentations throughout the community on alternative gardening tips that reduce the use of pesticides and herbicides. These workshops also promote the benefits of composting, further reducing the amount of trash generated and shipped to landfills as well as reducing the need for harmful chemicals/fertilizers. Solana Center, in conjunction with City staff, put on workshops with a local nursery (Cedros Gardens) to promote composting and Integrated Pest Management (IPM) for gardens and landscaping.

Additionally, the City collaborated with Solana Center and the City of Encinitas to subsidize compost bins for sale to the residents. The cities agreed to subsidize a large portion of high quality compost bins so that residents could purchase them at a much lower cost than retail. This was done to promote compost as a way to reduce the amount of trash going to landfills from the cities. This program was a huge success and the cities have agreed to look into this in the future as a reoccurring program to go along with the composting workshops. It's these types of working relationships that really benefit the community as a whole. When local government gets together with nonprofit groups and local businesses, everybody wins.

Community / Recycling Events

Event Dates	Name of Event(s)	Attendance at Event(s)	Description and Summary of Event(s)
June 3 and 4, 2006	Fiesta Del Sol	700	Annual event for the City of Solana Beach. Recycling services were coordinated in conjunction with Coast Waste Management. In the past 4 years, Solana Center provided these services in their entirety.
August 27, 2005	Beach Blanket Movie Night	300	New event put on by a partnership between the City and local community group to provide a free night of environmentally themed movies. Educational material was distributed at event.

School / Adult Community Education

Date of Event(s)	Event Title	Estimated Audience	Specific Audience	Location	Jurisdiction
July 18-22, 2005	Ecology Camp	30 per day (150 total)	1 st Grade - Jr High	La Colonia Community Center (Field Trips Included)	Solana Beach

Community Workshops

Date of Event(s)	Event Title	Estimated Audience	Specific Audience	Location	Jurisdiction
March 9, 2006	Landscape Design Basics	25	Business/ Residential	Fletcher Cove Community Center	Solana Beach
March 16, 2006	Plants for Southern California	25	Business/ Residential	Fletcher Cove Community Center	Solana Beach
March 23, 2006	Landscape Sprinkler Systems	25	Business/ Residential	Fletcher Cove Community Center	Solana Beach
March 25, 2006	IPM Landscaping and Gardening Workshop	12	Residential	Cedros Gardens	Solana Beach
March 30, 2006	Landscape Watering and Fertilizing	25	Business/ Residential	Fletcher Cove Community Center	Solana Beach
May 15, 2006	IPM Landscaping and Gardening Workshop	63	Residential	Cedros Gardens	Solana Beach

Down 2 E.A.R.T.H. Newsletter:

Solana Center produces an annual newsletter entitled Down 2 E.A.R.T.H. It has a Circulation 41,000 and is mailed directly to residents in the Cities of Del Mar, Encinitas and Solana Beach. The newsletter provides large outreach to residents about the need to recycle, curbside recycling referral phone numbers, used motor oil and filter recycling and household hazardous waste collection information.

Articles for the City of Solana Beach's newsletter:

Solana Center writes regular articles for the City of Solana Beach on a wide range of topics, including E-waste, recycling, composting and buying recycled. The topic is coordinated between the City's Environmental Specialist and the Executive Director of the Solana Center. The articles are included in the Appendices and described in more detail in other sections of this Report.

10.6 Other Opportunities

10.6.1 City Storm water Hotline

The City operates a storm water hotline, ((858)720-2400 x 2512) which is dependant on public participation to report suspected violations of IC/IDs and to inquire about workshop information or other storm water-related needs. The hotline does provides 24/7/365 access to the public so that they can report potential violations and/or call for information as soon as they are thinking about it, rather than having to wait for normal business hours. The hotline is sent directly to the Environmental Specialist's voice mail (it can still be anonymous) to ensure quicker and more efficient response to the public inquiries, as well as providing an outlet for the public to discuss issues directly with City staff.

10.6.2 Web Site

In this day of high-technology, the City uses its Web site to provide opportunities for the public to get involved, learn about the various storm water programs, or send email messages to the Environmental Specialist (stormwater@cosb.org). On the City's Web site (www.ci.solana-beach.ca.us), a link to the City's storm water page is shown when a visitor first clicks on the City's main page. The City's JURMP, SUSMP, and WURMP reports have been posted and requests for comments have been solicited. The City also provides links to

www.projectcleanwater.org, the City of San Diego's Think Blue Campaign, the San Diego Regional Water Quality Control Board, the San Elijo Lagoon Conservancy and others. The website is in the process of being completely revamped, which will allow for easier information accessibility to the public and also a much more efficient way to update the website by City staff. This will be reported on in more detail in next year's Annual Report.

10.6.3 Local Media

As described in detail in Chapter 9 (please refer to that chapter for more information), the City utilized the local media to inform and educate the public. Although this is not a public-participation activity, the information provided in the articles describes the ways in which the public can get involved, if they so choose.

The City also published several articles in the *Shorelines* Newsletter (also described in Chapter 9) inviting the public to get involved, providing details on how they can participate in protecting the region's water resources.

10.6.4 HHW Large Event Day

As reporting in last year's Report, The City was looking into co-sponsoring a large HHW event with neighboring jurisdictions for its residents to properly dispose of any excess HHW that they may have stored at their residences. This event was held at the Del Mar Fairgrounds and allowed residents to dispose of HHW free of charge, by the carload. This event was held to subsidize the ongoing HHW programs of the cities involved. The event was a huge success, and the cities will look to hold another event in the near future. Disposal numbers and participation are available upon request.

10.7 New Activities and Improvements for FY 06/07

The City will continue to implement the elements of the public participation component as described in the City JURMP. The focus will be on expanding the collaborative partnerships to include more frequent opportunities for public involvement (clean up days, sampling days, etc.). Staff will continue to look for more opportunities to work with neighboring cities to host pollution prevention community events through its watershed programs (Large HHW event). Additionally, the City is working with the other Copermittee's in possibly putting together more large scale community educational events and a better cooperation with local media such as the Coast News and Solana Beach Sun to

report on significant events and activities.

10.8 Summary

The City has been successful at implementing numerous methods to encourage public participation. The City makes every effort to encourage the public to participate in improving water quality, recognizing that it's up to all of us.

Key opportunities for public participation included the following:

- Regional Copermittee Outreach Events
- Fiesta Del Sol
- Beach Clean Up Day
- Earth Day
- Regional Workshops
- City Council Meetings
- Copermittee meetings
- Collaborative community partnerships
- Contacts through the City's Storm water hotline, City Web site
- Beach Blanket Movie Night

CHAPTER 11

Assessment of JURMP Effectiveness Component

CHAPTER 11: ASSESSMENT OF JURMP EFFECTIVENESS

In accordance with Section F.7.a. of the Permit, each Copermittee is required to develop a long-term strategy for assessing the effectiveness of the various components of the its Jurisdictional and Watershed Urban Runoff Management Programs (URMPs).

During this reporting period, the City has continued implementation of all components of the Permit. This section will assess the effectiveness of the JURMP, and discuss all strengths and weaknesses of the City's program.

11.1 "A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs"

During FY 03/04, the Copermittees developed an assessment document titled, "A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs." This document was prepared after discussions with the RWQCB in which the Board stated that the Copermittees needed a better method to assess the effectiveness of the JURMP. This document was approved by the Board and will be used to assess all future programs, or until another method is agreed upon. The document addresses six levels of assessment:

1. Compliance with Activity-Based Permit Requirements
2. Changes in Knowledge/Awareness
3. Behavioral Changes
4. Load Reductions
5. Changes in Discharge Quality
6. Changes in Receiving Water Quality

The levels of assessment have been combined into three rather than six categories for this reporting period because of the programs early stages of development. Level 1 includes modified assessment tables from the JURMP. Level 2 and 3 are combined and discuss the program strengths (accomplishments and outcomes) for each component. Level 4, Load Reductions, is still being assessed as to the proper way to address this (possibly

TMDLs) and so is only briefly discussed, and Level 5 and 6 are combined to attempt presenting a water quality assessment.

The strategy uses both quantitative and qualitative measures of program effectiveness.

In addition, during the development of the WURMPs, the cities worked tirelessly to develop a meaningful method to assess *that* program for its impact on water quality – not just whether or not the program components were implemented, but more importantly, the ability to find a way to measure the link between activities and improved water quality, if it exists.

The WURMP program effectiveness strategy incorporated all of the elements of a meaningful method to assess impact, incorporated public comments, collaborative writing, thinking and designing, and in the end, is a good start at learning how to meaningfully determine the value of the storm water program activities. The City anticipates that over time, the results of a well-thought-out meaningful assessment will provide the region important information from which program activities can be designed, modified, rather than implementing program activities and hoping the activities have the expected impact. The individual WURMP program assessments can be found in the submitted WURMP Annual Reports.

11.2 Level 1: Compliance with Activity-Based Permit Requirements

A table that summarizes the activities tracked by the City's Storm Water Team, which demonstrates compliance with the requirements of the Permit, can be found in Appendix Z2, Another table (available upon request) was obtained from the City's tracking database, Digital Mapping, Inc. This database was started in January 2004, and is the central database used by both the Code Compliance Department as well as the Environmental Specialist to input and search for violators and violations to more effectively enforce the Permit. Additionally, narratives explaining the City's efforts regarding compliance can be found in the individual components of this Annual Report.

11.3 Levels 2&3: Changes in Knowledge/Awareness and Behavioral Changes

This section is broken up into each component of the JURMP and presents a summary of the changes in knowledge/awareness and behavioral changes. Each

section discusses the accomplishments for the component and discusses future improvements.

The assessment forms (worksheets) developed by the Copermittees were created to establish a consistent method of tracking program actions and accomplishments between agencies. The City's JURMP included the expectation that the forms would be utilized and as a result, the City will report the information as requested in the following sub-sections. However, some of the information is best reported in a narrative format, while some is best presented in tabular. All relevant information will be reported. For complete discussion of each program component, please refer to its corresponding Chapter of this Report.

Municipal Component

Program Strengths: During this reporting period, City staff again inspected *all the City's catch basins* and cleaned every one that appeared to have trash or sediment accumulated in the basins. The removed approximately 4 cubic yards of material from its storm drains *and the beach*. The City also manages an active Beach Cleaning Schedule and maintains several different permanent BMPs throughout the City (the most significant structural BMPs being the biofilter located at La Colonia Community Center, the Low-Flow Diverter at Fletcher Cove and the CDS Unit at the north end of North Cedros).

For a discussion regarding the qualitative accomplishments of the City's Municipal Component (major accomplishments, educational and outreach activities, new activities or improvements to be implemented next year) see Chapter 2 of this report.

Table 11-1
Municipal Inspections

Activity	Quantity	Units	Comments
Number of high priority municipal facilities (<i>buildings</i>)	1	n/a	Inspected weekly at Engineering Safety Meeting held at Public Works Yard. Annual inspection conducted on 6/28/06 and its inspected prior to rainy season. See Chapter 2 of this Report, and Section Two of the City's JURMP.
Number of high priority municipal facilities (<i>parking lots</i>)	6	n/a	Visually Inspected weekly by PW staff. Cleaned monthly by street sweeper. See Chapter 2 of this

			Report, Section Two of the City's JURMP.
Number of high priority municipal facilities (<i>other</i>)	3	n/a	One park, all city streets and roads, and the MS4.
Number of high priority municipal facilities targeted for inspection (buildings and parking lots)	10	n/a	See above.
Number of high priority municipal facilities inspected	10	n/a	The Public Works Yard and all parking lots.
Number of medium and low priority municipal facilities inspected	5	n/a	Fire Department, Marine Safety Center, Fletcher Cove Community Center, City Hall and La Colonia Community Center inspected annually. All inspections occurred on 6/28/06.
Quantity of material removed from MS4 and beach	4	Cubic Yards	This is the amount of material the City collected from its annual cleaning of the MS4 and the beach.
Quantity of debris removed that could have enter MS4 (i.e. street sweeping, litter removal)	299.1	Cubic yards	As stated in this Report, the City had some significant issues with the street sweeping company, and documentation was one key area. This number is only for July 1, 2005 – December 30, 2005 as these are the only records we received. The City has since replaced its contractor and has a new company onboard that has resumed providing this information.

In addition, the City has a very educated Municipal Staff. The City's Storm Water Team has also actively educated their respective employees regarding the storm water issues and how they relate to their daily job activities.

The City's Public Works Crew is immensely knowledgeable when it comes to storm water issues. Since the crew is only four people, it is very easy to educate them on an ongoing basis. They are all very aware and conscientious of the storm water regulations and are eager to report any violations in the field to the appropriate staff. The Public Works Crew also hands out educational material to the community whenever the opportunity presents itself, and they are more than willing (and encouraged by their supervisors) to stop and talk to the community regarding these issues. The Public Works Crew is a vital part of the Storm Water

Team, because they are always out in the field, and they have become the eyes and ears of the Program. They have weekly meetings with the City Engineer, City Inspector and Environmental Specialist at the Public Works Yard where they discuss, among other things, the storm water regulations and they visually inspect the Yard.

The amount of cooperation between the various City departments has proven to be very successful, with each department willing to implement the storm water regulations into their program.

As reported in last years Annual Report, one of the improvement areas for this component would be to conduct more department specific educational presentations. This will continue to be a high priority activity and an area to improve upon. During this reporting period, the Environmental Specialist conducted a presentation to the Planning Department and Marine Safety Department. This has proven to be very successful and is highly encouraged by the Department Directors. It is anticipated with the adoption of the new Permit that more education of City staff will be required. This will most likely occur with more department specific presentations to detail any changes or additions to department specific activities required in the Permit. After adoption of the new Permit, the Environmental Specialist will analyze the new requirements and develop appropriate presentations to City staff.

Additionally, as a result of the RWQCBs response letter to FY 03/04 Annual Report, the City now calculates and tracks the total amount of material collected by their street sweeping activities. The City contracts out the street sweeping to a private company, but after some discussions with both the RWQCB staff and the contractor, a solution was worked out. The amount of loads is now documented weekly by the street sweeper, and is verified by the City's Public Works Crew. This information is reported in this Annual Report and will be documented in the years to follow to see if a trend can be verified to assess the effectiveness of the program. Additionally, as reported in last year's Annual Report, City staff ensured that the new street sweeping contract contained language that mandates that this be done on a continuous basis. So far, the activity has been very successful as data that is quantifiable is now collected and will be useful in load reduction calculations in the future (as enough data is collected).

Improvement Areas: City staff is confident that all aspects of the Municipal Component are being adequately addressed, although they realize that things could always be improved. Some improvement areas may be additional

educational sessions with City staff, to reinforce the importance of the Permit and how it affects their everyday activities (especially with the pending adoption of the new Permit). Increased inspections on Municipal facilities may be conducted to ensure compliance at all times. And lastly, a more detailed look at the “problem” catch basins, if any, which may require cleaning every year. If any of these catch basins exist, then a more aggressive litter/trash campaign may be conducted to nearby residences or businesses in hopes of a load reduction in the catch basin. Additionally, the Environmental Specialist will commit to ensuring all new employees are educated as soon as they start employment. This will help them in adjusting their daily activities immediately to comply with the requirements of the Permit.

Industrial Component

Program Strengths: Since the City has only one industrial site (down from two originally reported in JURMP), it had been decided that a strong pro-active approach to compliance would be adopted. The one site (Baker Iron Works) has been incorporated into the routine inspection schedule of the commercial sites dictated in the Permit, thereby allowing the City to ensure that the site is up to code on all storm water issues. This is an increased activity over the requirements of the Permit as inspection of this industrial site is only required bi-annually (it meets all the requirements of the Permit for bi-annual inspection). Since the one site was elevated to a high priority site, the City has taken an active approach in ensuring that the site will be in compliance at all times.

The City has developed a strong working relationship with the owners of Baker Iron Works. City staff have visited the site multiple times and worked with them to come into compliance. The owners have responded well to the City's educational efforts and compliance requests. The City has successfully worked with Baker Iron Works to help them come into compliance by instituting several BMPs throughout the property. Although there are no indications from any of the Dry Weather Programs throughout the years that this site has contributed to pollutants to the City's MS4, the mere fact that there is a possibility of this occurring in the future prompted the City to request that a few BMPs be installed onsite. A couple of very successful accomplishments occurred that are worth noting.

1. The first thing that was accomplished was the plugging up of a small storm drain located on the property that drained directly onto the City street.

2. The second BMP installed was the daily dry sweeping of the property to ensure that no sediment/gravel got into the street by automobile traffic.
3. The third BMP integrated into their normal routine was the use of a magnet on the grounds outside where some work is conducted using steel. The magnet is used to sweep the entire yard and collect miscellaneous scrap metals that may have collected on the ground. This activity is conducted on an as needed basis, but no less than once per week.
4. The fourth, and most important, BMP was the installation of the storm drain sump/ infiltration well at the northwest corner of the property that was designed to catch all low flow dry-weather runoff from the property and filter it before it left the property. These BMPs have been successfully implemented by the owners and are currently in place and functioning.

An improvement area listed in last years Annual Report involves ensuring that Baker Iron Works is complying with all requirements of the State Industrial General Permit, even though this is not a requirement of the storm water Permit. However, Baker Iron Works asked for the City's assistance in compliance and so City staff has worked with Baker Iron Works to implement the necessary elements for compliance. This has further helped the relationship grow between the City and its industrial partner, furthering the great working relationship.

As mentioned in last year's Annual Report, a devastating fire broke out in the office of Baker Iron Works. Most documents were destroyed, making it very difficult to send in all necessary paperwork to the State under the General Industrial Storm Water (GISW) Permit. Baker Iron Works staff worked with staff from the State regarding this issue and everything was worked out between them. Additionally, the employee training manual was destroyed, however this year's inspection confirmed that another one was developed and is available onsite.

City staff also worked with Baker Iron Works to come into compliance under the GISW. Baker employees requested help with the monitoring requirements so City staff trained them in the proper sampling techniques and offered options on where to take the samples for analysis. This just proves the healthy working relationship between City staff and Baker Iron Works.

Improvement Areas: For the next reporting period, City staff will revisit Baker Iron Works to conduct additional inspections and reevaluate their current practices. City staff believes that this industrial site is working well within the regulations of the Permit and is satisfied with the current situation. City staff will look to continue the open communication with Baker Iron Works and conduct further inspections to ensure that all new employees are aware of and compliant with the storm water regulations. Also, City staff will ensure that Baker Iron Works is aware of any new regulations coming down from the State (new Permit) and work with them to ensure compliance.

Commercial Component

Program Strengths: During this reporting period, The City decided to disseminate between high, medium, and low sites, in order to focus on the high priority commercial facilities. The City decided it would be more effective to concentrate on the high priority sites to ensure compliance, as they would be most likely be the highest contributor of priority pollutants. As mentioned in previous reports, all the commercial sites were scheduled to be inspected on an annual basis, which is above and beyond what the Permit requires. However, the City decided to be more aggressive with the thoroughness of inspections at high priority facilities, since all commercial facilities have been inspected at least once during the life of this Permit.

During this reporting period, all of the high priority facilities were inspected. This includes all automotive repair, fueling, and washing facilities, equipment rental yards, golf courses and facilities that store heavy equipment, supplies, and machinery. There were fewer inspections this reporting period than in the last couple of years because the City decided to focus more time and effort on the high priority commercial businesses that have a higher potential to discharge pollutants than the smaller, exclusively indoor facilities such as restaurants and retail establishments. Since all commercial facilities have been inspected at least once (a majority of facilities have been inspected multiple times) during this Permit cycle, the City shifted its focus on the larger, more risky facilities. All commercial facilities were notified through a citywide mail-out that inspections were going to be conducted, but City staff decided to focus more on detailed inspections of the facilities listed above as well as restaurants that have a history of problems, if any. So, inspections occurred at 100% of all golf courses, automotive repair shops, gas stations, and equipment rental yards located around environmentally sensitive areas. These inspections were very successful and all facilities were in compliance, and no follow-up activities were required.

This activity is more in line with the priorities established by the watersheds and regionally in switching priorities to high priority pollutants and their sources. By aggressively monitoring and enforcing high priority sources (facilities), it is anticipated that sources will be abated,

An area of improvement listed in last year's Annual Report was the developing and implementation of a grease trap ordinance. The City is happy to report that a grease trap ordinance was passed by City Council on September 7, 2004. Staff introduced the proposal to City Council on February 17, 2004, and got the approval to move forward with the education of local restaurants and the public about the pending ordinance. A condition of the resolution once the proposal passed was to give restaurants 18 months to install a grease trap/interceptor. Therefore, all restaurants in the City (even existing restaurants) must have a functioning grease trap/interceptor by March 2006. This is a huge accomplishment by City staff as it is well documented that most major sewer spills are the result of grease related problems. Inspection of the grease traps and maintenance will be accomplished in conjunction with the storm water inspections.

Improvement Areas: In last year's Annual Report, one improvement that was mentioned was the inspection of 100% of all commercial facilities in one reporting period. All commercial facilities have been inspected, however not in the same reporting period. Staff is working hard to inspect every facility annually, but decided to focus more efforts on those commercial facilities that have a higher potential to discharge pollutants of concern into the watershed. This may not be realistic due to the restraints of local resources, but it is a goal nonetheless. As mentioned before, this approach is more aligned with the watershed and regional approach of targeting high priority pollutants, and more specifically, their respective sources. The City will most likely need to adjust commercial facility activities with the adoption of the new Permit, but this will be addressed when the permit is adopted.

Residential Component

Program Strengths: The City provides a wide range of programs for its residents to allow for convenient implementation of pollution prevention activities. Among the many programs the City provides are:

- Curbside recycling (first in the County to provide this service)

- Greenwaste collection
- Aggressive Household Hazardous Waste collection program (described in detail in Residential Component)
- Community Education Program (described in Residential Component)
- The development and maintenance of the City's website regarding the Storm Water Program

The City Council meetings are also televised to all the residents of Solana Beach. Many times storm water issues are discussed during these meetings. Other positive aspects of the program are the direct mailings of education materials and the articles placed in the community newsletter, "*Shorelines*." Tallying the amount of phone calls to the City's Storm Water Hotline does not appear to be a good assessment of the City's program. The City, because of its relative small size, prefers to conduct business on a more personal level. This has proven to be a much more effective way to work with the public. Therefore, although the hotline is still publicized, City staff distributes their direct telephone numbers to the public when dealing with storm water issues. This allows direct, immediate contact with a Staff member, which ensures immediate, effective response to storm water issues.

As stated in last year's Annual Report, the new Environmental Specialist documented contacts (phone call, visit to City Hall, etc.) with the public regarding storm water issues to help assess the effectiveness of the program over time. The only calls documented are ones that required staff action on some level. The community of Solana Beach is very unique in that the residents are actively involved. Staff receives numerous phone calls every day that must be addressed immediately. Therefore, it would be unreasonable to document every contact made by the public, only the ones that pertain to storm water and where action is needed.

The table is substantial, so a brief summarization of the data is below. The complete table listing the caller, date, problem/issue, mode of contact (email, phone, counter, etc), and City action, is available for review at City Hall upon you request.

- There were 43 contacts made from the public that required follow-up activities

- There were 15 phone contacts
- There were 6 City Hall visits from concerned citizens
- There were 8 emails received from the public
- There was one referral from County DEH
- There were 6 referrals from City Staff detected in the field
- There were 7 contacts made through the new radio system that instantly connects the Environmental Specialist to the Public Works Crew and Code Enforcement Department

Another area of improvement mentioned in last year's Annual Report was to develop additional educational materials for the residential community. This activity is constantly being addressed by the North County Storm Water Program (NCSWP) discussed previously in Chapter 8. The City feels that it is much more effective and efficient to address these issues collaboratively with the cities in the NCSWP. This allows for a consistent message to be disseminated to a large population of people throughout the North County, as well as resulting in a significant cost savings for the City.

Improvement Areas: For the next reporting period, City staff will evaluate this component and make any necessary alterations to the program. The City will continue to develop educational materials for the residential community. All educational activities and materials that were produced by the NCSWP are described in detail in the Carlsbad WURMP Annual Report as well as summarized in Chapter 8 of this report.

Land-Use Planning for New Development Component

Program Strengths: The City continued its implementation of the local Standard Urban Storm Water Mitigation Plan (SUSMP) program. The City worked on implementing the SUSMP into all plan check processes. The Environmental Specialist conducted a special SUSMP training for the Planning Department and the SUSMP was integrated into their daily activities. Although there will not be many projects within the City subject to this new requirement (the City is 90% built-out), the appropriate departments are still very aware of the requirements.

The Planning Department is actively involved in the City's Storm Water Team, and often brings the members up to date on any project, or proposed project, that will have storm water implications, including possible SUSMP projects. Although, as mentioned above, the City is almost completely built-out, the Planning Department has, as a result of this Permit, developed a list of possible proposed projects that may require a SUSMP. These projects have not been approved, but Planning Department staff have surveyed the City and put this list together to warn other staff as these projects may be proposed soon. This gives staff a "heads up" before the projects are submitted that they will probably be subject to the SUSMP requirements and so the process can begin when, if ever, these projects are proposed (updated list located in Appendix K).

Another extremely important activity that was implemented during this reporting period was the new addition to the Building Permit approval sheet to include an *Environmental* review section for the Environmental Specialist. Since the City does not have its own Building Department located within the City, (it shares its building department with the City of Encinitas located in Encinitas' City Hall) it has been difficult in the past to effectively communicate on building projects recently approved. Therefore, the Planning Department agreed to revise the routing sheet to include a new section titled *Environmental* so that storm water issues will be included in all plan reviews. This has been extremely effective especially for smaller single family home remodels and additions that would otherwise go undetected under the previous system. This also allows for a mechanism to require inspection of all proposed structural post construction BMPs before final approval of the project. This is an extremely effective development as now Staff has an opportunity to ensure that all post construction BMPs are installed according to plan, before they are covered up in the construction process, which happens a majority of the time.

The City has also participated with the North County Storm Water Program (NCSWP) to develop a SUSMP Tracking Table that helps identify any SUSMP projects that have the potential to impact a neighboring jurisdiction. This table contains information such as address, project type, post-BMPs, maintenance requirements, etc., that will help jurisdictions notify other jurisdictions of projects that may impact their cities. This is just another example of the beneficial collaborative working arrangements between the City and its neighboring jurisdictions.

Another success during this reporting period was the development of educational materials to distribute to prospective applicants prior to submitting their plans.

Staff addressed this issue by putting together a “SUSMP Binder” at the Engineering/Planning Department counter that holds the adopted SUSMP as well as a couple “information sheets” (implemented 10/1/2004) that give a basic description of the SUSMP and its requirements that prospective applicants can look at if they have questions. Additionally, City staff is available to discuss any issues or questions that they may have. Additionally, the City worked with the other cities in North County Storm Water Program to develop a construction brochure that is distributed to all prospective and actual permit applicants. This is discussed in more detail in the Construction section of this Report.

Improvement Areas: The City will continue to educate prospective applicants regarding the SUSMP if their respective projects will be subject to the new regulations. The City is very confident that its Land Use Planning component is very effective; however, it will continue to be modified in the future when necessary.

Construction Component

Program Strengths: The City Inspector and Environmental Specialist are responsible for conducting construction site inspections. The City Inspector is responsible for all public projects, whereas the Environmental Specialist deals with all private projects. However, they often team up and visit all sites together, which have proven to be very successful as they both bring in special expertise to the inspection process.

All construction sites were inspected for storm water issues on a frequency much higher than described in the City’s JURMP. Since there are relatively few construction sites in the City, staff can visit the sites very frequently. Additionally, since the City only has one “City Inspector” for the whole City, he is responsible for monitoring all construction sites for all various issues. Therefore, he spends his whole day out in the field, and upon visits to construction sites for any issue (storm water related or not), he is able to monitor the BMPs on a daily basis. If the City Inspector notices a problem related to storm water, he notifies the Environmental Specialist immediately. The Environmental Specialist then investigates further, taking any necessary corrective or enforcement actions. This program has worked very well due to the already established relationship between the contractors and the City staff. Because of this pre-established relationship, the transition into storm water compliance was virtually seamless. The Inspector keeps a daily log of all his activities, and storm water related issues are included. The City also mailed out a wet-season reminder to all active

construction sites reminding them of their obligations under the Permit. Therefore, the City is assured that all contractors are aware of the regulations, making enforcement much easier for the City.

The City's "Four-Tiered Approach," discussed previously in Chapter 7, has been a major improvement in the Construction Component. This approach has allowed the City to keep a much better handle on the construction contractors and their sites, as each one is now required to check off a box saying they have received the City's educational BMP Guide prior to project approval. Additionally, the contractor is required to have a Pre-Construction Meeting with City staff in which storm water issues are discussed. At these meetings, contractors are required to sign a Pre-Construction Inspection Checklist, are given a sample copy of the Site Inspection Checklist, and they are required to fill out a Wet-Weather Triggered Action Plan. All of these measures are taken to ensure that all contractors are aware of the storm water regulations, and it helps the enforcement aspect of the Permit as staff can be assured that all contractors have been educated and cannot claim ignorance of storm water issues. Appropriate enforcement actions (corrective, stop work, fines, etc.) can be enforced without fear of being challenged by violator.

Another activity that was implemented this reporting period in regards to construction activities was the development and distribution of a colorful, informative BMP Construction Brochure. This brochure was developed by the NCSWP and delivers a consistent message for all North County Cities. The brochure is a tri-fold that gives background information on the storm water program and regulations and on the reverse side is a large diagram of a common construction site with the general BMPs shown and described. This brochure has been a huge success with the construction/developers world as they can post this brochure at their site to remind their employees of proper BMPs. These brochures are distributed along with the BMP Guides that accompany all permit applications.

The City believes that any opportunity to educate the community should be taken advantage of. So, during this reporting period, 509 BMP Guides and BMP Brochures were distributed to the public, as compared to 416 during last reporting period, further verifying the City's commitment to education.

An area of improvement discussed in last year's Annual Report was the development and tracking of SUSMP long-term BMP maintenance agreements. The City is happy to report that this task has been completed and the City now

has implemented a new Long Term BMP Maintenance Agreement that requires the applicant to submit a recorded document from the County of San Diego which includes the maintenance activities required and gives the City the legal authority to inspect the BMP to ensure compliance. This is an extremely helpful tool in ensuring that the post construction BMP is not only installed, but is being properly maintained to remain effective.

The City's primary Engineer who reviews grading plans and post construction BMP requirements was an active participant in the Carlsbad Watershed SUSMP workshop developed to assist not only the developers in the region, but to promote consistency among fellow plan reviewers in the respective jurisdictions. The Carlsbad Watershed Copermittees felt it prudent to collaborate amongst each other to try and develop a consistent review process that each city could implement to make it easier for developers to design projects that would be approved throughout the watershed. This is discussed in more detail in the Carlsbad WURMP, but it is worth mentioning here to illustrate the City's willingness to participate in watershed activities for the betterment of the region. Although not many projects in Solana Beach fall into SUSMP requirements, the City still felt it necessary to participate in this activity to develop a consistent message for all developers in the region.

Improvement Areas: During the next reporting period, the City is committed to improving and modifying the construction program if any deficiencies are detected. The City is confident in its improvement during this reporting period, as the Four-Tiered Approach has continued to be highly successful, The City is also committed to developing more educational materials to distribute to the public, and contractors in particular. The Construction BMP Brochure has been a major success, and the contractors/developers are constantly looking to us for more information and guidance.

Illicit Discharge Detection and Elimination Component

Program Strengths: The City continued to implement its IC/ID program by responding to complaints and investigating potential violations promptly and thoroughly. The City now serves the community much more effectively and efficiently by bypassing the storm water hotline and connecting the Environmental Specialist directly to the community. The program has proven to be very successful as the community of Solana Beach is very intimate and prefers to do business face-to-face and see immediate results. The City has a very customer service focused atmosphere, and the residents demand instant

and effective action on relevant issues. This has, in turn, been very beneficial to the storm water program because many times, in order to effectively deal with a violation or IC/ID, it has to be investigated immediately. This has led to many violations and violators being discovered while it is occurring, rather than long afterwards which leads to a lengthy and complex IC/ID investigation that often yields no results.

The Dry Weather Program was conducted by the Environmental Specialist. The program was modeled after the initial report conducted by MEC Analytical, and the complete report is included in this report. In summary, there was one location that had the potential to be an IC/ID situation. This location has been a problem area in the City for a couple of years and the solution has proven elusive and is still being investigated.

An improvement area discussed in last year's Annual Report was stepping up the effort in solving this historic bacteria problem. The City now commits a large sum of money to be included in every annual budget to completely flush out the problem pipe with the hopes of eliminating any residual bacteria in the pipe. The City continues to work with the neighboring condominium complexes to attack the over-watering issues that may be contributing to the problem. City staff works very well in communicating possible IC/ID situations around the outfall, as the Marine Safety Department has a lifeguard station located directly in front of the outfall. Whenever there is a noticeable increase in flow or odor, the lifeguards are instructed to contact the Environmental Specialist to investigate. This has led to a couple of violations at the residential complexes from individual contractors performing work, and necessary enforcement has been taken. This will continue to occur until a remedy is found for the problem outfall.

Improvement Areas: During the next reporting period, the City is committed to eliminating the historical bacteriological problem at Seascapesur. More aggressive actions may have to be taken to determine the ultimate source of the problem. The pilot program discussed in last year's Annual Report turned out to be inconclusive; so the City may have to look at alternate solutions, such as a permanent BMP structure installation or the possibility of blocking off the connections to the storm drain and rerouting the site drainage of the neighboring condominiums to the street before entering the catch basin. These solutions would be very expensive, and since the receiving water is not being affected yet, the City will continue to pursue the elimination of the bacteria at its source. Additionally, the City will continue to gather and analyze additional data from the wet weather and dry weather programs and compare the datasets to determine

potential IC/ID problems.

Education Component

Program Strength: The City feels very strongly that the current education program being implemented by City staff has been very effective. The amount, and quality, of educational materials developed by the City and through collaboration with the other Copermittees, has proven to be very successful. The complete educational program is discussed thoroughly in the Educational Component of this report.

Improvement Areas: The City is very satisfied with its current educational program. The North County Storm Water Group has gone above and beyond the requirements of the WURMP's educational component, and has delivered many quality items to the residents of Solana Beach. The only area of improvement for the City would be to resume the community workshops when the demand is great enough from within the community.

Public Participation Component

Program Strengths: The residents of Solana Beach have multiple opportunities to interact with City staff through the hotline, website, and direct interaction. All City staff are available to discuss any issues with the community if they come into City Hall, and most all literature distributed currently has the Environmental Specialist's direct telephone number listed on it. The City staff prides itself on dealing with the community on a personal basis, and as a result has established many key relationships with members of the community. The City hosted a Beach Clean-Up Day that allowed the community to get involved as well as distributing educational brochures at the annual community event, Fiesta Del Sol. Some additional opportunities include:

- *Numerous Copermittee meetings*
- *Beach Clean Up*
- *Fiesta Del Sol*
- *Shorelines Articles*
- *Down 2 E.A.R.T.H. Newsletter,*
- *Opportunities to work with local Partnerships/Collaboratives*
- *City Hotline*
- *City Web site*
- *Community Beach Blanket Movie Night*

Improvement Areas: The City realizes its responsibility to get the community involved in the storm water program. The City has given the residents ample opportunity to get involved in implementing the program, however the City is committed to resuming the community workshops if the demand is great enough. City staff is very visible throughout the community on a daily basis and routinely has discussions with residents regarding storm water issues. The feedback given to City staff has been overwhelmingly positive, and the City looks forward to continuing this personal relationship with the community.

11.4 Level 4: Load Reductions

Load reductions have not been calculated by the program. As a result of the Regional Water Quality Control Board's comments on the City's FY 02/03 Annual Report, the City has adapted its street sweeping program. The City now requires the private street sweeper to document all load information on a weekly basis. This includes how many loads it collects and an estimated amount of debris collected. This information was collected and included in this year's Annual Report, and will continue to be included in the years to follow. This may be an effective way to calculate load reductions, which may be a good assessment of the program's effectiveness. Although, most of the debris collected by the street sweeper in the City of Solana Beach is organics (leaves, grasses, etc.), so therefore, this may not be a good indicator of load reductions. However, the information will be collected and analyzed and any trend will be documented for future use.

Another possible load reduction calculation could be documenting the amount of material collected and removed from the various BMPs throughout the City. These BMPs include:

- Annual inspection and cleaning of MS4 system
- Maintenance of CDS Unit
- Maintenance of detention basin adjacent to San Elijo Lagoon
- Load reduction calculation for the Low Flow Diverter at Fletcher Cove
- Load reduction calculation for the Biofilter maintained at La Colonia Community Center

- Maintenance records of permanent treatment BMPs required as part of SUSMP projects (privately owned)

All of these activities may not be feasible, however they all warrant further consideration. It has been generally agreed upon the Copermittees are not capable at this point to perform load reductions, but we are committed to working towards this goal. The Copermittees have decided that this Level (4) should be attacked at a regional level, and not jurisdictionally. A major push coming up that should force us in this direction are the impending TMDLs that will be developed and implemented shortly by the RWQCBs

11.5 Levels 5&6: Changes in Discharge and Receiving Water Quality

The City has been collecting and analyzing monitoring data received through the dry-weather and coastal monitoring programs. The City will continue to analyze the data to better understand the collective water quality picture in the City. The data will be assessed to determine the potential water quality problems within the City. Data collected by the City will be analyzed independently as well as collectively with the regional monitoring programs. Although it is generally accepted that it will take many years to develop a trend in water quality, the City will nonetheless analyze its data on a continuous basis to see if anything develops. There are no glaring deficiencies in the water quality in the City, but the situation at Seascape Sur will continue to be monitored to ensure that the storm drain does not have an impact on the quality of the receiving water (Pacific Ocean).

11.5.1. Dry Weather Monitoring Data

2005 Summary

The 2005 Dry Weather Monitoring Program found only one storm water conveyance line with an indication of illegal discharges to the City's storm water system (Seascape Sur). The majority of other sites visited were damp or dry. With the exception of the Seascape Sur area, sites that had water present did not have parameter concentrations high enough to cause great concern.

The City will continue with its efforts to educate the Beachwalk business complex about the City's pollution prevention programs and continue its efforts to

eliminate the discharge at Seascape Sur. Commercial educational programs should continue and include both the proprietors and their employees. Residential programs should include building owners and residents. An informed public will provide support for new and already existing prevention programs.

11.5.2 Coastal Water Quality

The Pacific Ocean is the ultimate receiving water for the City although there are other intermediate receiving waters, such as the San Elijo Lagoon and the San Dieguito Lagoon. To measure the quality of the coastal receiving waters and assess the JURMP effectiveness, the City has monitored its one coastal storm drain outfall (Seascape Sur). The City used to monitor another outfall at Fletcher Cove; however, a low-flow diverter was installed in 1998 to divert dry-weather flows into the sewer system. This was done because of historically high levels of bacteria detected in that area.

Coastal and Lagoon Storm Drain Outfalls

The coastal outfall monitoring program reporting period is a little different than the reporting period for this report. The coastal monitoring program reporting period runs from November 2005 through October 2006. All cities with flowing coastal storm drains met regularly (Coastal Monitoring Workgroup) to develop and implement this program to promote regional consistency.

The Coastal Monitoring Workgroup developed an adaptive monitoring approach. This approach was developed to theoretically allow the individual cities to adapt their program to concentrate their limited resources on problematic locations and ease up on consistently non-problematic areas. The City had *no receiving water exceedences* for bacteria during this reporting period, which was consistent with the results of last reporting period. So, it appears that the increased educational and oversight of the vendors at the Fiesta Del Sol was successful as there were no exceedences after the event for the second year in a row, as there had been in the previous two years. City staff made this a priority during this reporting period to meet again with the event organizers and discuss BMPs with them to relay to the individual vendors and provided them with more educational materials. This was mentioned in last year's Annual Report as an improvement area because of the consistent exceedences after the Fiesta Del Sol that had occurred in the past few years.

The storm drain at Seascape Sur had multiple exceedences for total coliform,

fecal coliform and enterococcus. This is a storm drain that has a history of high bacteria counts and is currently the focus of an IC/ID investigation. The program is being implemented by City staff, and the complete results are presented in the Coastal Monitoring Annual Report.

The adaptive monitoring program also incorporated lagoon outfalls. City staff monitored eight lagoon outfalls, none of which had any samples taken. Although these outfalls were not required to be monitored because they either had no flowing water or were inaccessible due to sensitive habitat or dangerous conditions, City staff made the decision to monitor them anyway (when possible), to gather a complete picture of what was occurring at the City's outfalls.

Beach Posting Data

The County Department of Environmental Health has monitored beach water quality for bacteria since the 1950's. This sampling is used to assess the health of the beaches. When bacteria levels exceed State standards, the County posts the beaches with signs warning and advises the public not to enter the water. In 2000, there was a significant change in protocol as a result of the passage of AB411, which required additional testing, incorporating testing for enterococcus, and required the beach be posted when only one sample exceeded the standard.

During this reporting period, there was *one beach closure*. This was due to a sewer spill that occurred in the City's sewer line due to root blockages. The beach at the San Dieguito Lagoon was closed immediately as a precaution due to the fact that the sewage did reach a storm drain upstream of the lagoon. However, the follow-up samples were below the exceedence limit and the beach was subsequently reopened.

CHAPTER 12

Fiscal Analysis Component

CHAPTER 12: FISCAL ANALYSIS

In accordance with Permit Section F.8, this section of the report describes the resources that the City utilizes to finance the various storm water programs. The Fiscal Analysis Component of the JURMP (Section Twelve) has not been modified.

In each Annual Report to the RWQCB, this section will report on any changes in the revenue sources that finance the City's storm water programs, a *general* description of the expenditures during the reporting period, the budget adopted for the following reporting period and any changes known at the time of the writing of the report (to keep the document as current as possible).

12.1 Revenue Sources

The City finances its Storm Water Management Department via revenues from the General Fund. During FY 05/06, 60% of the City's General Fund revenue was derived from Property and Sales Tax, as shown on Table 12-1.² Other sources include fines and penalties, licenses and permits, service charges, intergovernmental revenues and various other sources.

Table 12-1**General Fund Revenue Sources 2005/2006**

Source	Percentage of General Fund
Property Tax	36% of General Fund Revenues
Sales Tax	24% of General Fund Revenues
Other Taxes	19% of General Fund Revenues
Intergovernmental	8% of General Fund Revenues
Charges for Services	3% of General Fund Revenues
Use of Money & Property	1% of General Fund Revenues
Licenses & Permits	2% of General Fund Revenues
Fines, Forfeitures & Penalties	4% of General Fund Revenues
Other Revenues	3% of General Fund Revenues

As reported in City's annual Adopted Budget Report Fiscal Year 2006/2007.

12.2 FY 2005/2006 Expenditures

The general expenditures for the FY 05/06 Storm Water Department and other departments that support the storm water program are shown on Table 12-2. In addition to the expenditures below, the City also incurs significant costs associated with tasks that supplement pollution control such as routine street cleaning (trash pick up) performed by the public works department, cleaning of the parks and community centers, and beach clean ups.

Table 12-2

FY 05/06 Storm Water Expenditures Budget

Expenditure	Amount
Salaries ³	\$139,300
Cleaning of Storm Drain System	\$ 23,700
Permit Fees (County of S.D., RWQCB. SWRCB)	\$ 14,000
Public Education, Investigations	\$ 1,000
HHW Program	\$ 15,000
Lab Testing	\$ 14,000
Preparation and Consultant Fees for Watershed URMPs	\$ 5,400
Maintenance of Steven's Creek Channel	\$ 20,000
Training(Travel, Conferences, Meetings)	\$ 1,600
Small Tools	\$ 1,500
Misc. Items	\$ 6,300
Seascape Storm Drain Cleaning	\$ 15,100
Total	\$ 256,900

12.3 FY 2005/2006 Budget

Table 12-3 presents the City's Adopted Budget for the FY 05/06 Storm Water Management Department.

³ Salaries for City personnel that handle storm water responsibilities were divided between various departments, depending on the amount of staff time allocated to that department. Salaries include anticipated overtime and benefits.

Table 12-3
FY 06/07 Storm Water Management Budget

Line Item	Budgeted
Salaries	\$ 139,300
Storm Drain Cleaning	\$ 23,700
Permit Fees Paid to County & RWQCB	\$ 14,000
Lab Testing	\$ 14,000
Investigations, brochures, public education	\$ 1,000
Steven's Creek Cleaning	\$ 20,000
HHW Program	\$ 15,000
Watershed URMP Shared Costs	\$ 5,400
State Water Control Board Fees	\$ 6,000
Training (Travel, Conferences, Meetings)	\$ 1,600
Misc. Items (Including small tools)	\$ 12,600
Seascape Storm Drain Cleaning	\$ 15,100
Total	\$ 267,700

The Storm Water budget increased by \$10,800 from the previous year (\$256,900 to \$267,700) due mainly to the allocation of a portion of the code compliance office position related to storm water enforcement. The City felt it necessary to add a portion of the code compliance office position salary to storm water due to the increased time and resource commitment required to effectively enforce the storm water regulations of the City. This has become an increasing obligation to the code compliance office due to the increase in enforcement of regulations over the life of this Permit.

12.4 NPDES Fee

The City was researching different funding options that would provide a steady and consistent funding source to effectively guarantee funding to execute the ever-increasing requirements of the Permit. With City budgets becoming more and more constrained and cities needing to cut back on basic services just to function, relying on the General Fund became too much of a risk for such an important program like this. Therefore, the City Council made it a priority for City staff to develop alternative funding sources for necessary programs like the storm water program. The City Council approved funding to obtain a consultant

to assist in this project. The report is finished and the City held a public workshop to discuss the findings on May 19, 2005.

The City Council authorized the report and enacted the NPDES Solid Waste Fee. This fee is collected to help offset the costs of service for compliance under the Storm Water Permit. The fee does not offset all costs, and the City's General Fund will continue to subsidize the rest of the program. The City began collecting the fee in September 2005, but the money collected has yet to be apportioned to the NPDES program pending litigation. For more information or to read the entire NPDES Solid Waste Fee Report, you can obtain a copy at City Hall or download it from the City's website.

CHAPTER 13

Special Investigations

CHAPTER 13: SPECIAL INVESTIGATIONS

In accordance with Permit Section F.5., this section of each Annual Report will expand on the City’s efforts to prevent and eliminate illegal connections and illicit discharges (IC/ID) into and from the City’s MS4 as discussed in Chapter 8. The City’s IC/ID program is designed to identify, prohibit, and eliminate discharges that are a significant source of pollutants with the goal of protecting receiving water quality. This section of each Annual Report will provide the results of any special investigations conducted during the reporting period. However, the City also responded to many other complaints of possible IC/IDs, which resulted in rapid compliance, but did not warrant or require a comprehensive special investigation.

“The Mystery of the Bacteria at Seascape Sur...Still Going...”

13.1 Introduction

As reported in FY 2002/2003 Annual Report, there has been an ongoing, historical problem occurring at one particular location in the City. The location, Seascape Sur, has had historically high levels of bacteria, often times exceeding limits at the storm drain and occasionally in the receiving water (no exceedences during this reporting period). Last year’s Annual Report goes into deep detail regarding the history of this problem and the City’s efforts to remedy it. Since the history is important in describing the situation, this report will include much of what was written last year. Any added information that was discovered during this reporting period will be included in this report. Next year’s report will include the City’s additional efforts that were undertaken during the FY 06/07.

Prior to and during this reporting period, the City began a concerted effort to determine what was causing the elevated levels of bacteria at Seascape Sur outfall (based on results from the Dry Weather and Coastal Monitoring Programs). The problem was thought to be resolved early on, but then monitoring results in subsequent years indicated the problem had either returned or persisted. In 2000, the City Engineering/Public Works Department was fairly certain that the problem had finally been corrected; particularly when the 2001 DWMP indicated the bacteria elevated levels had *decreased* (although they were still elevated above the normal range).

However, preliminary results from the 2002 DWMP revealed that the bacterial

levels had risen from the previous year to a troublesome level (see 2002 DWMP, available at City Hall upon request). As a result, the City “went back to the drawing board,” and with the help of MEC Analytical (consultant for the 2002 DWMP), began an upstream investigation that continued through the end of calendar year 2002.

13.2 Background

The City began its DWMP in 1993, with no significant problems reported until 1996 when elevated bacteria levels were noted at the Fletcher Cove Outfall. Subsequently, the City constructed a low flow diverter (in 1998), which corrected the problem by diverting dry weather flow to the City’s sanitary sewer system.

Between 1997 and 1999 results from the DWMP revealed some minor issues that were readily resolved, but nothing significant at Seascape Sur or Fletcher Cove Outfalls.

However, results from the 2000 DWMP identified two locations with high levels of coliform bacteria, which was of significant concern because both locations flowed directly to the beach via the Seascape Sur Outfall and were in fact, just a short distance from the outfall. The City conducted an extensive investigation and eventually found an old leaking sewer lateral that was buried under the ground near the site of the catch basins used for testing. The lateral was dug up, examined, and staff determined that cementing over the pipe would be the best method to ensure it was completely sealed off (investigation confirmed that the pipe was no longer in use). Because the leaking lateral was located quite close to the curb inlet, City staff, plumbing contractors and the consultant were fairly certain that the pipe was the cause of the elevated bacteria counts.

To confirm that the pipe was the cause of the suspected pollution, the City contracted with Kinnetic Labs to provide additional testing, which showed reduced counts during several follow-up tests. At that point, staff was optimistic that their efforts had been successful.

The 2001 DWMP included ten sites for testing. To ensure the problem from the previous year had been corrected, the program included the same two sites that had elevated bacteria counts in 2000. Surprisingly, the site had elevated bacteria levels, but because they were much lower than the previous year, staff believed that the problem might be residual bacteria. As a result, the City ordered that the line between the curb-inlet and the outfall be televised in 2002 (the report for the

2001 program was delivered to the City in January 2002). The televising of the lines was scheduled during the routine cleaning of the storm drains later that year. Due to various issues, the televising of the lines did not take place prior to the implementation of the 2002 DWMP, which was under the regulations of the new Permit.

The City requested proposals from consultants to design and conduct the 2002 DWMP. The contract was awarded to MEC Analytical in late spring, early summer 2002. The City requested that the same two monitoring sites from 2000 and 2001 be included in the program, regardless of the new sampling procedures required of the Permit. The City included those sites to ensure continual monitoring of the area.

13.3 The 2002 Investigation

Samples for the 2002 program were collected on August 6th and 7th, 2002 throughout the City by MEC Analytical (MEC). Shortly thereafter, MEC contacted the City and informed the Storm Water Coordinator that significantly high levels of bacteria had been found at the locations of the year 2000 and 2001. As shown on Table 13-1, the amounts were troublesome.

Table 13-1

DWMP Initial Results (Sampled August 6-7,2002)

Site	Site Location	Total Coliform	Fecal Coliform	<i>Enterococcus</i>
1	West Side of Sierra Ave	700,000	30,000	24,000
2	Manhole between sites 1 and 2.	900,000	50,000	28,000
3	Seascape Sur Outfall (downstream from sites 1 and 2)	800,000	21,000	35,000

Results are reported in MPN/100 mL.

Based on the above results, it appeared that the problem, whatever the cause, was clearly more pronounced at Site 2, the manhole, than at either Site 1 or 3. Therefore, the City immediately requested that the conveyance system be televised. At the same, the City authorized MEC to conduct an upstream investigation, accompanied by City staff. MEC indicated to staff that the elevated levels of bacteria, combined with the results from previous years, were a sign that an illegal sanitary wastewater connection may be the cause of the problem.

However, subsequent inspection by City staff (including public works crews that inspected various locations of the line) did not reveal any expected accompanying waste solids. A somewhat consistent drip was noticed, which was traced back to nearby condo complex that was discharging their pool (the process was discontinued and the complex changed their procedures to drain into the sewer system). Other causes of the slow drip appeared to be over-watering of the many condominium complexes on Sierra Avenue.

Staff sent letters to all HOAs on Sierra Avenue that drain to the Seascap Sur outfall to eliminate the slow drip. Staff received calls from some of the HOAs in response to the letters and discussed the issue in more detail and received positive responses.

The results of the televised line were viewed by the City Engineer, which revealed a dip in the line approximately at the location of the manhole (with the elevated bacteria) and two possible illegal connections just west of the curb inlet. However, additional investigation indicated that the connections were not a problem, but staff thought that the dip in line could be harboring bacteria.

13.3.1 More Testing

In an attempt to pinpoint the source of the contamination, MEC and City staff began the upstream investigation on August 19, 2002. Samples were collected from Site 1, and at a curb inlet catch basin on the *eastside* of Sierra Avenue, directly upstream from Site 3 (named Site 1E).

Staff was surprised when the results of the second round of sampling revealed *higher levels of total coliform (2,400,000), fecal coliform (50,000) and Enterococcus (500,000)* at Site 1E, than the previous results from Sites 1 and 3. Further, the results were surprising given that the dip in the line at Site 2 was thought to be the source of the contamination. *The results seemed to indicate that the source of the bacteria was coming upstream from Site 1E.*

13.3.2 Traveling Further Upstream

The curb-inlet catch basin on the east side of Sierra Ave (Site 1E) receives street runoff and runoff from the Beachwalk Business Complex (Beachwalk). Beachwalk is a collection of various businesses located at 437 South Highway 101 in Solana Beach. Beachwalk businesses include several restaurants (Pacific Coast Grill, California Pizza Kitchen, Rubios), several small food facilities (ColdStone Creamery, Solana Beach Coffee Company, VitaFit, etc.), several

professional offices, a bike shop and others. Beachwalk was constructed approximately 13 years ago and at the time of construction, an on-site storm drain system, that collects on-site runoff from the property, was lawfully connected to the City’s MS4.

Based on the results of the second round of testing, City staff thought that the source of the contamination must somehow come (or significantly contribute) from Beachwalk. Upon speaking with the Management Group that oversees the property, staff made several visits to look for possible non-point source explanations and speak with business owners to discuss BMPs (see Timeline below for more details).

On August 27th, 2002, City staff went to Beachwalk and personally delivered educational brochures to *all of the businesses*, educating business owners about storm water regulations and BMPs. To ensure that all the businesses were addressed, door hangers were left at the businesses that were not open at the time of the visit and additional property visits were scheduled. City staff also spoke with the person responsible for maintenance of the property and provided detailed information about pollution prevention, storm water regulations, and BMPs and how to report violations. Many of the business owners were extremely helpful and all were cooperative. Some business owners went out of their way to show staff potential problem areas, discuss BMPs and provide access to private restroom facilities (staff were looking for overflow problems and unusual construction or evidence of recent repairs).

Staff conducted another visit on September 3rd, 2002 in response to a call from one of the business owner’s staff had contacted on August 27th, 2002. City staff confirmed that foul smelling odors were coming from catch basins on-site. Further inspection revealed excess watering occurring on the patio of the Pacific Coast Grill restaurant. A manager at the restaurant was contacted and educated regarding BMPs and the new storm water regulations. During this visits, staff determined that samples were needed at various storm drains throughout the complex to try and pinpoint and eliminate the problem. City staff identified several locations that should be tested and requested permission to collect the samples from the property owners.⁴

⁴ Although the City’s Municipal Code does provide sufficient legal authority to order testing of the sites, rapid remedies are more likely to occur through solving problems in collaborative manner. For that reason, City staff requested permission from the property owners to conduct some testing and received immediate access and cooperation.

On September 4th, 2002, City staff accompanied MEC to conduct additional testing and investigation. The process confirmed staff’s suspicion that the bacteria levels were coming from Beachwalk. Various samples were collected at locations throughout the complex. An outdoor floor drain just outside the kitchen of Pacific Coast Grill appeared to have dark brown, stagnate water in it. The appearance and odor was consistent with raw sewage. On-site ammonia tests were also consistent with raw sewage numbers (60 mg/L). A sample (Site 32) was then collected for further lab analysis. Sites 1E and 3 were also sampled again for additional information. As shown on Table 13-2, Site 32 confirmed that the contamination was coming from Beachwalk and most likely, the source was near or in, the floor drain outside Pacific Coast Grill Restaurant.

Table 13-2
Upstream Testing Results

Site	Site Location	Total Coliform	Fecal Coliform	<i>Enterococcus</i>
32	Beachwalk floor drain	>16,000,000	300,000	>241,960
1E	East Side of Sierra Ave	3,000,000	50,000	3,550
3	West Side of Sierra Ave	800,000	70,000	24,950

Results are reported in MPN/100 mL.

13.3.3 Just When We Thought the Problem was Solved...

After the lab results came back and confirmed what was suspected, the property owners were notified of the severity of the situation and were eager to remedy the problem and work with the City to find a solution.

The property owners worked together with the City’s Public Works Supervisor and a local plumber experienced in storm drain cleaning to correct the problem. The east side catch basin was temporarily sealed, the pipe was flushed and a specially equipped trucked was placed at the catch basin to vacuum out the resulting sludge for proper disposal. As soon as the procedure was complete, on September 18th, 2002, City staff collected additional samples from all three sites (32, 1E and 3), *expecting the results to show a decrease in bacteria levels*. The residual water in the pipes was clear of the brown, stagnate water, which also contributed to the hope that the problem was *surely* resolved. However, while results from Site 32 indicated reduced bacterial levels, downstream sample *again* indicated high bacteria levels! (the sample on the west side of the street).

13.3.4 Brainstorming

At first, these results seemed a bit perplexing (maybe it was the dip in the line?, etc.), but then, while staff continued to brainstorm ideas to solve the problem, some engineers thought was that the flushing of the system might have loosen some bacteria, which escaped collected by the Vactor truck. The City decided to wait a few weeks to see if the problem was alleviated after the system had time to completely flush out.

In the meantime City staff met with the property owners and 1) reviewed old construction plans for the property to look for potential areas of cross contamination; 2) discussed possible options that may help alleviate the situation, including training and education of business owners, television activities that might occur near the catch basin; and 3) it was decided that a temporary cap would be placed on the floor drain of Site 32 to secure it from contamination for 30 days (the cap could be removed during rain to prevent flooding).

After 30 days (and two rain events), staff requested that the plumbing contractor remove the temporary cap to allow further testing, which was agreed to.

13.3.5 Not again!

Surprisingly, results from this last round of testing indicated that there was still a significant problem on the property. An immediate meeting was scheduled with the property owners, who were informed of the test results and that the City now required them to remedy the problem through televising the lines, locating the illegal connection and reconstruction, or face serious fines by the RWQCB and the City. The property owners were concerned, responsive, cooperative and resolute in their attempts to do just that.

In addition, the City agreed to purchase a storm drain inlet filter to be placed in the catch basin just downstream from the complex, leading to the ocean outfall. It was installed the first week of December, and is maintained by the City’s Public Works Staff. Although it does not filter the water passing through from Beachwalk, it does help alleviate the problem by filtering out the water coming from the street. The City hopes that this will help reduce the high bacteria numbers found in the catch basin.

13.3.6 Action Taken By Property Owners During FY 03/04 Annual Reporting Period

By the end of December 2002, Beachwalk property owners had done the following to remedy the problem.

While attempting to televise the lines, a significant amount of sludge built up in the pipe prevented the camera from penetrating the pipes (which is likely the source of the problem, City staff also reviewed the small amount of footage that was performed in the pipes)

- An extensive flushing out of the entire system was conducted, which took quite some time to accomplish amidst the rain events in December and the amount of material in the pipes.
- The lines were televised and detected a large dip in the pipe where sediment and sludge were building up, possibly providing a breeding haven for re-growth of bacteria.
- No illegal connections or sanitary waste connections were detected. There were a few pipes connected to the outfall pipe coming from the adjacent condos, however these lines were proven to be outdoor area drains. Beachwalk property owners and condo associations are completely aware of the responsibility to rectify the situation.

The City decided that they must increase their efforts to rectify this continuous problem to ensure the integrity of the receiving waters at Seacape Sur. The bacteria levels were still consistently high, often exceeding standard limits for the outfall, but, fortunately, not affecting the receiving waters. Growing increasingly frustrated, City staff decided that and increased effort, and the high costs that come with it, were necessary to finding the cause, and solution, to the problem at Seacape Sur.

On March 4, 2004, City staff televised the Seacape Sur storm drain line for maintenance purposes. The video showed a significant amount of sediment accumulated at the end of the pipe coming from the Beachwalk Business Complex. Staff met with the Beachwalk property management and mandated that they clean the sediment from the line. The Beachwalk management complied to our request and immediately cleaned the pipe, and City staff supervised to ensure all Best Management Practices were used and abided by at all times.

Laboratory results were still coming back consistently high, so the City decided to take on the cost of completely cleaning the storm drain pipe with the hopes that it would remove any residual bacteria that may be contributing to the problem. The problem the City faced was that this had never been done before, and the dimensions of the pipe made it very difficult to conjure up a plan of attack. The pipe starts at the curb inlet on Sierra Avenue, then travels completely underground and slopes downward until it empties out onto the beach. The distance from the street to the outfall is approximately 550 feet and dips to 30 feet below the surface, so access is very difficult. The City was able to gain access from the neighboring condominium complex to place a vactor truck to ensure that no excess water would escape containment and empty onto the beach. The project took 5 whole days to complete (ending on Friday, May 5, 2004), with City staff working with its private contractor, and cost approximately \$10,000. The City removed 4 cubic yards of sediment from the pipe, and used over 5,000 gallons of water. The City was confident that the next lab results would come back spotless.

13.3.7 What Happens Next...

On the following Monday (May 10, 2004), City staff received a phone call from the County of San Diego Department of Environmental Health advising them that samples they took in the receiving water adjacent to the Seascape Sur outfall had failed AB 911 standards. The City was stunned. The exact opposite had happened from what staff was expecting. All that time and money wasted to clean the pipe had actually made it worse. Or did it? Staff immediately began an IC/ID investigation and sure enough, an adjacent condominium complex had a sewer spill that weekend and raw sewage had entered into the Seascape Sur storm drain. City staff was relieved that they found the cause of the high bacteria, but highly disappointed that all of their work, time, and money had been wasted by a small sewer backup, and it was back to square one.

Because the sewage was traced back to a private lateral, the City was determined to put the pressure on the condominium complex to clean the pipe again. Staff met with the HOA representative and a deal was worked out to have the pipe cleaned again, at the HOA's expense. Additionally, the City took this opportunity to once again educate the HOA and wrote an article regarding the proper handling and disposal of grease for the HOA's monthly newsletter. The City then set the HOA up with a plan of attack and supervised the process, but the effort was stepped up a bit. Staff worked with the Regional Water Quality Control Board to allow the City to use a small concentration of bleach mixed with

the water to make sure that the pipe was completely sterilized at the end. This cleaning was done on September 24, 2004.

13.3.8 Where We Were in FY 04/05

The results of the cleaning performed on September 24, 2004 proved it to be very successful. The bacteria levels were reduced significantly and the City hoped that the sterilization would be a permanent fix. However, the results in the resulting few months showed that the bacteria was slowly increasing back to its historical levels, further frustrating City staff. This may be due to City staff's worst fear, that the dip in the pipe could be harboring and resulting in re-growth of bacteria that may enter by way of decomposing organic debris and/or illegal dumping.

Since this did not permanently solve the problem, the City continued to explore other options. In March 2005, the City was discussing the situation with its contract lab, Weston Solutions, and jumped at the opportunity to participate in a pilot study aimed at refining a new lab analysis that would potentially categorize the generic coliform and enterococcus bacteria indicators as deriving from human or animal origins. This would be an extremely significant discovery because the City could further identify where the bacteria was coming from, human (IC/ID) or from animals (dogs, possums, raccoons, etc.), to help direct what steps to take in the future. The City could further refine its source identification and, in theory, stop wasting limited resources on sources that don't exist.

The pilot program is completed; however, the results did not come back revealing anything substantial. Only one sample came back positive for human bacteria (and this was somewhat inconclusive), and samples collected after this positive result all came back negative. Therefore, the City can conclude with relative certainty that the source of the bacterial contamination is not human. This one positive result may be caused by a single illegal dumping occurrence or by laboratory error. The resulting negative results show that there is not a continuous inflow of sewage, as would result if there were an illegal connection. Although the pilot program is complete, one early, important conclusion would be that the bacteria is not coming from human origins, which would allow the City to eliminate this from source identification and focus its efforts on non-human origins.

13.3.8 Where We Are Now (FY05/06)

The City continues to struggle with this ongoing situation, and is running out of options to try and eliminate the high bacteria counts. The budget continues to include money for cleaning out the line once per year, but this is merely a temporary band-aid to the problem, whereas the City is looking for a permanent fix. The one positive to take from this is that the discharge is not affecting the water quality of the receiving water (Pacific Ocean) yet, but there is no guarantee that this will not change in the future. Here are some options the City is now looking at to hopefully solve this reoccurring situation:

- Repairing sag in the outfall pipe: This option is being actively researched as regrowth in the pipe is now the most suspected culprit. Our new Public Works Operation Manager (hired after reporting period) is researching this option with other City staff. Hopefully we will have more information in next year's Annual Report.
- Blocking off connections from adjacent residential complexes and making them drain to street so that discharge can be sampled: This option is seen as a last ditch effort, as it would be very expensive and politically charged. This would only be considered if outfall started affecting receiving water quality.
- Installing permanent BMP such as a low flow diverter: This option is also seen as a last ditch effort as it would be expensive and has not been fully researched to check the feasibility. City engineers would have to check the locations of the sewer main and the capacity to determine if this would be feasible. Funding may be available through grants for water quality, but again this option is a long term effort.
- Conducting further tests to determine if source of bacteria can be pinpointed: This option is most feasible at this point. Our lab, Weston Solutions, has recently contacted the City again to be a part of another pilot program, this time with a study that will hopefully give us more results than the previous study. At this point, the City is open to any study that may assist us in finding the elusive source to the bacteria problem. The pilot program is still being discussed at the time of writing this report, so hopefully more information will be available in next year's Report.

13.4 Timeline of Significant Actions

August 27, 2002- City staff distributed storm water brochures to all the businesses located in the Beachwalk complex. Staff toured the mall, visually inspected on site catch basins, outdoor floor drains, restroom facilities, and inspected several restaurants and discussed pollution prevention BMPs.

September 4, 2002- Based on feedback from the testing, staff spoke with the managers of Pacific Coast Grill, reviewed the storm water regulations, spoke about prohibited activities and distributed storm water brochures.

September 4, 2002- City staff and an employee from MEC conducted upstream investigation. A small outdoor floor drain contained brown, stagnate water with a very pungent odor. The drain cover was removed and the material was sampled. MEC called a few days later and reported that the results were consistent with the numbers for raw sewage for total and fecal coliform and *Enterococcus*.

September 18, 2002 - The Beachwalk storm drains were flushed out using clean, fresh water and the sludge was vacuumed out into a Vactor truck at Site 3. Results from follow-up samples indicated that a problem still existed.

October 24, 2002- Additional samples were taken to see if the problem had been eliminated. Results from the lab showed that the problem had not been solved. City staff continued to meet with property owners to pinpoint the source.

November 2002- The City installed a specialized catch basin filter unit that is designed to catch all debris (trash, organics, etc.) from the street before it reached the MS4 system. It also has specialized bio-filter rolls to filter out the hydrocarbons.

November 13, 2002- a semi-permanent cap was placed on the floor drain that seemed to be the source of the bacteria. A follow-up sample was scheduled for 30 days.

December 13, 2002- Samples were taken after the cap was removed and preliminary results indicate that the problem has not been resolved. More extensive investigation was ordered.

December 14-31, 2002- All property drains were cleaned and televised.

January through June- Increased monitoring and sampling through Coastal Monitoring Program to try and determine if the steps taken previously had successfully remedied the problem. An intensive educational program to the HOA's and the Business Complex was also implemented to assure compliance under the Permit.

March 4, 2004- Mandated and required the Beachwalk Business Complex to clean out storm drain system that leads to the City's Seascape Sur storm drain due to accumulation of debris (sediment, trash, etc.).

May 5, 2004- Completed cleaning of entire Seascape Sur storm drain line from Sierra Avenue to the beach outfall. A sewer spill occurred that following weekend from a private lateral connected to the Seascape line.

May 20, 2004- Wrote two articles for *Seascape Sur News*, the monthly newsletter distributed to the Seascape Sur condos, educating the residents on activities that may reduce bacteria that could be a possible source into the problem at Seascape Sur outfall. The first article was titled, “Sewer Clean-Outs,” and it describes the proper way to dispose of grease (not down sink) to prevent sewer blockages and spills. The second article was titled, “Walk Dogs Off The Property and Clean Up After Them,” which is pretty self-explanatory.

September 24, 2004- Completed cleaning again with the addition of bleach to counteract the sewer spill that occurred on May 5, 2004. Access issues during the summer months prevented the cleaning from occurring earlier.

November 2004- Samples showed a dramatic decrease in bacterial indicators, proving the cleaning was successful. However, future results showed the bacteria increasing back to historically high numbers.

March 1, 2005- Started participating in contract lab's pilot program to differentiate bacteria into human and animal origins.

13.5 Future Activities

The City is committed to finding the solution of the bacteria problem at Seascape Sur. During last reporting period, the City was involved with its lab, MEC Analytical Systems, in a pilot program attempted to further identify the strands of

bacteria involved (discussed above). Although this study did not give the City the results it anticipated, it nonetheless was an attempt to solve the dilemma. As discussed above, the City is now looking at another pilot study with its lab (now Weston Solutions) to hopefully look at another angle in this seemingly unending battle.

Additionally, the City has committed to setting money aside in its CIP budget to undertake some major projects to help solve the problem. As stated in the Fiscal Analysis Chapter, the FY 06/07 budget has \$17,000 set aside specifically for the Seascape Sur storm drain cleaning. The City is committed to thoroughly cleaning the pipe annually if need be, or until a long-term solution is found. Additionally, the City actively monitors the outfall pipe and all surrounding areas for any unusual occurrences, and the Marine Safety Department will continue to notify the Environmental Specialist whenever there seems to be unusual spikes or odors coming from the outfall pipe, as one of the lifeguard towers is located directly in front of the outfall. Lastly, City staff will continue to work with the neighboring condo associations to educate the residents as well as perform inspections of upstream businesses.

13.6 Summary

The City has thoroughly utilized the results from its DWMPs during the last several years to identify and attempt to eliminate the source of bacteria that was exposed through testing and upstream investigations. With the efforts of City staff, and the cooperation of the Beachwalk property owners/managers and neighboring condominium complexes, the source of these unknown and pesky bacteria has almost been solved. Additionally, the City is very excited about being involved in another special study with its lab, Weston Solutions. In the very near future, the City is confident it will close the book on the Mystery of Seascape Sur Bacteria.



CHAPTER 14

Conclusions and Recommendations

CHAPTER 14: CONCLUSION AND RECOMMENDATIONS

14.1 Conclusion

During the FY 2005-2006 reporting period, the City was able to successfully implement the many requirements of the Permit. Although the City has been required to have a storm water program under previous Orders issued by the RWQCB, this Permit greatly expanded the types of activities and documentation efforts required of the cities. This was the fourth full year of implementation of the Permit, and looking back, the City is very satisfied with the progress of the program.

The City continued its “team approach” to implementing the JURMP by integrating the ever-evolving requirements of the Permit into specific tasks that each member would be responsible for implementing in their respective departments. The Environmental Specialist was responsible for bringing the group together during meetings and updating the respective departments on any changes that may affect their department’s daily activities. Additionally, the Environmental Specialist was responsible for ensuring that all requirements of the Permit were being addressed and satisfied. This collaborative method allowed the City to more rapidly modify procedures and handle the increased workload quickly and efficiently.

The City’s accomplishments during this fourth year of the JURMP implementation provide evidence of the City’s pro-active approach to improving water quality. The requirements under Order 2001-01 expand the previous Order (90-42) significantly and have altered many of the daily routines of staff at the City.

During the next reporting period, the City expects to build on the accomplishments of FY 05/06, and determine the most effective and meaningful program activities as to their impact on water quality (pollutant specific) collaboratively with the other Copermitees, and implement the approved program assessment strategy. Since the impending new Permit may be adopted sometime during next reporting period, the City anticipates working together with the RWQCB to implement the new regulations of the impending Permit.

14.1.1 2005-2006 Accomplishments

The following is a small list of notable accomplishments achieved during the 2005-2006 reporting period. All of these activities are described in more detail

throughout this report. They are the following:

- 06/30/2005- City Council reduced grading permit threshold from 200 cubic yards to 50 cubic yards requiring more projects to go through a more thorough plan check including pre, during and post construction storm water management.
- 8/16/05- Added new “Environmental” section of building permit processing form which requires ***all*** projects to be reviewed by Environmental Specialist for storm water management.
- 8/17/05- Conducted Sewer Spill Overflow Response Plan Workshop/Training with Public Works Crew.
- 8/27/05- Co-sponsored first annual “Beach Blanket Movie Night” that included public environmental education.
- 9/24/05- Co-sponsored large free HHW event at Del Mar Fairgrounds to give residents another convenient way to dispose of excess HHW properly, avoiding potential HHW may reach landfill, or worse, local waterways.
- 1/9/06- Staff participated in developing SUSMP workshop with North County Storm Water Program. Workshop was designed to assist developers/contractors in SUSMP requirements as well as attempting to make the requirements more consistent throughout the region.
- 1/10/06- Met with Code Enforcement Officer to review storm water regulations and requirements to better assist them on the weekend patrols. Continued weekend controls that proved successful in trial run.
- 5/1/06- Added new storm water regulations and reporting requirements to current and future street sweeping contracts.

14.2 Recommendations

Recommendations to improve the City’s storm water program include:

- *Resume the community workshops as soon as the demand is great enough.*

- *Continue to educate new and existing City staff to ensure compliance in the ever-changing storm water world.*
- *Complete the special investigation to uncover and eliminate the root cause of reoccurring problems upstream from Seascape Sur Outfall.*
- *Evaluate staffing needs and program responsibilities.*
- *Continue Implementation of SUSMP requirements and ensure all plans are in compliance.*
- *Implement the JURMP Assessment Program.*
- *Continue to collect and analyze monitoring data to establish a long-term assessment of the City's water quality.*
- *Develop additional industry specific educational materials to distribute to the community.*
- *Implement the IPM Program that was developed collaboratively by the Copermittees.*
- *Develop and implement pollutant specific activities to address high priority COCs (Constituents of Concern).*

REFERENCES

City of Solana Beach. *"Adopted Budget for Fiscal Year 2002/2003."*

City of Solana Beach. *"Adopted Budget for Fiscal Year 2003/2004."*

City of Solana Beach. *"Environmental News."* Shorelines Newsletter. Vol.16. No.2.
Fall/Winter 2003/2004.

City of Solana Beach. *"Environmental News"* Shorelines Newsletter. Vol.17.No.2.
Spring/Summer 2004

MEC Analytical Systems, Inc. *"San Diego County Municipal Copermittees 2002-2003
Urban Runoff Monitoring Report."* September 2003.

APPENDICES

APPENDIX A: STREET SWEEPING MATERIALS FORM

Employee Name and Organization (below)

Date (above) use N/S below if not scheduled

1 st	2 nd	Time in:	Time in:	Equipment Number:
3 rd	4 th	Time out:	Time out:	Year, Make & Model
Tuesday				

OBSTRUCTIONS (identify as vegetation, vehicle, etc. and provide description).

Reference previous date(s) reported (no entry above required):

End of day Volume in Cubic Yards: _____

% (percentage) Sediment: _____

%(percentage) Organics: _____

Litter (describe-or-enter -0-) _____

Operator enter reason(s) for not following schedule or other comments: _____

C.O.S.B. Initial _____

Forward to R.W.Q.C.B. (C.O.S.B. Initial on Sending)

City of Solana Beach 2004(admf)

APPENDIX B: SMOKING BAN ORDINANCE

ORDINANCE NO. 316

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, AMENDING SOLANA BEACH MUNICIPAL CODE SECTION 11.12.020 A TO INCLUDE TOBACCO LITTER AND ADDING SECTION 11.12.020 EE TO PROHIBIT SMOKING IN CITY PARKS AND BEACHES

THE CITY COUNCIL OF THE CITY OF SOLANA BEACH DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Findings and Purpose. The City Council of the City of Solana Beach hereby finds and declares that:

- A. The City of Solana Beach is committed to keeping its beaches and parks clean, safe, healthy and pleasant for everyone.
- B. Smoking is hazardous to health. Numerous studies have shown that second-hand smoke is a significant public health hazard. The U.S. Environmental Protection Agency has classified second-hand smoke as a group A carcinogen, the most dangerous class of carcinogen. Smoking in parks and beaches endangers children and others by exposing them to second-hand smoke. Moreover, children and youth who observe smoking and tobacco use in public beaches and parks may model the behavior.
- C. The U.S. Centers For Disease Control and Prevention (CDC) estimates that second-hand smoke causes 3,000 lung cancer deaths per year among adult non-smokers in the U.S. The California Environmental Protection Agency has concluded that second-hand smoke causes coronary heart disease in non-smokers. Second-hand smoke is especially hazardous to particular groups, including those with chronic health problems, the elderly and children. The CDC has found that second-hand smoke causes children to suffer from lower respiratory tract illness, such as bronchitis and pneumonia, exacerbates childhood asthma, and increases the risk of acute chronic middle ear infection in children.
- D. Additionally, discarding cigarettes and cigar butts and tobacco onto the ground in City parks and beaches is unsightly, unclean and particularly hazardous to small children who handle and sometimes ingest them. The City must collect tobacco litter in parks and beaches or it will be collected by stormwater and washed directly into our ocean waters in violation of the City's stormwater pollution prevention permit and to the detriment of ocean life and all ocean users.

ORDINANCE NO. 316
No Smoking in Public Beaches and Parks
Page 2

- E. The City Council therefore determines that banning smoking and the improper disposal of tobacco products in City parks is necessary to protect the health, safety and welfare of Solana Beach residents and visitors.

SECTION 2. Section 11.12.020 A. of the Solana Beach Municipal Code is hereby amended to read as follows:

- A. To dump or deposit any trash, specifically including cigarette and cigar butts and tobacco, refuse, rubbish, litter, or other kind of waste materials, except in approved containers specifically placed and designated to receive such waste materials. No person shall dispose of any animal carcass in or on any beach or park.

SECTION 3. Section 11.12.020 EE of the Solana Beach Municipal Code is hereby added to read as follows:

- EE. No person shall smoke within the boundaries of any public beach or park unless the City has designated a specific temporary or permanent signed smoking area.

SECTION 4. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of the ordinance would be subsequently declared invalid or unconstitutional.

SECTION 5. This ordinance shall become effective thirty (30) days following its adoption. Within fifteen (15) days after its adoption, the City Clerk shall publish this ordinance, or the title hereof as a summary, in a newspaper of general circulation within the City of Solana Beach as required by law.

ORDINANCE NO. 316
No Smoking in Public Beaches and Parks
Page 2

INTRODUCED at a regular meeting of the City Council of the City of Solana Beach, California held on the 7th day of October, 2003, and thereafter

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Solana Beach, California, held on the 21st day of October 21, 2003, by the following vote:

AYES: Councilmembers – Gofich, Keliejian, Campbell, Sheres, Powell
NOES: Councilmembers – None
ABSENT: Councilmembers – None
ABSTAIN: Councilmembers – None


THOMAS S. GOLICH, Mayor

APPROVED AS TO FORM:

ATTEST:


CELIA A. BREWER, City Attorney


JAN UHLMAN, Acting City Clerk

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO) ss.
CITY OF SOLANA BEACH)

I, JAN UHLMAN, Acting City Clerk of the City of Solana Beach, California, DO HEREBY CERTIFY that the foregoing is the original of Ordinance No. 316 duly passed and adopted by the City Council of the City of Solana Beach, California, at a Regular meeting thereof held on the 21st day of October, 2003.

That, in compliance with the laws of the State of California, Ordinance No. 316 being:

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SOLANA BEACH, CALIFORNIA, AMENDING SOLANA BEACH MUNICIPAL CODE SECTION 11.12.020 A TO INCLUDE TOBACCO LITTER AND ADDING SECTION 11.12.020 EE TO PROHIBIT SMOKING IN CITY PARKS AND BEACHES

A certified copy of the full text of Ordinance No. 316 along with the names of those City Councilmembers voting for and against said Ordinance was caused to be posted in the office of the City Clerk.

Executed the 23rd day of October, 2003.

(SEAL)  
JAN UHLMAN, Acting City Clerk

Published: North County Times: October 28, 2003

APPENDIX C: STORM WATER FACILITY INSPECTION FORM

CITY OF SOLANA BEACH – URBAN RUNOFF MANAGEMENT PROGRAM

STORM WATER COMPLIANCE INSPECTION CHECKLIST

Page 1 of 2

Inspector: _____

Date / Time of Inspection: _____

Type of Inspection: ☐ Routine ☐ Follow-up ☐ Complaint Investigation

I. FACILITY INFORMATION

Facility Name		
Street Address		Zip Code
Facility Contact Person		Phone
Type of Business <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial	JUMRP Prioritization level (<i>circle one</i>) <input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low	Standard Industrial Classification Code (SIC) if any

II. GENERAL SITE CONDITIONS

	S*	U*	N/A	Comments
General Observations				
Awareness of storm water related issues?				
Prior contact by a City employee for storm water?				
Employees trained in storm water pollution prevention practices?				
Common areas of yard reasonably clean and free of litter and debris?				
Are parking areas generally clean and swept as needed?				
Are storm drain inlets reasonably clean and free of debris?				
Is there evidence of discharges, spills, and or leaks in any areas?				
Trash storage areas				
Is area reasonably clean and uncluttered?				
Are trashcans and garbage bins kept covered?				
Fueling areas				
Is there a roof on fueling area?				
Is there a mechanism in place for spill overflow protection?				

 Vehicle/equipment maintenance area

(Compliance Checklist Continued)

Page 2

I. General Site Conditions (con't)	S*	U*	N/A	Comments
Materials loading and storage areas				
Area reasonably clean and free of litter and debris?				
Designated area covered overhead?				
Chemical handling areas				
Areas reasonably clean and organized?				
Is area indoors or properly covered?				
Spill containment cleanup kits readily available?				
If outdoors, is water from surrounding areas prevented from reaching chemical handling areas?				
Hazardous materials/liquids stored above ground?				
Dry clean up methods implemented?				
Area reasonably clean and free of spills, leaks, or any other pollutant-causing materials?				
Dry clean up methods implemented? (sweeping vs. hosing)				
Are there drip pans readily available for use?				
Spill containment and cleanup kits readily available?				
Storage areas covered and properly maintained?				
Are related activities contained within designated area?				
Hazardous materials/liquids stored above ground?				

III. BUSINESS PRACTICES

	S	U	N/A	Comments
BMPs				
Implemented minimum BMPs for this type of facility?				
Employees trained in BMP practices?				
Posted list of BMPs to assist employees in remembering?				
Ensures employees comply with BMPs?				
Record keeping				
Any available records to indicate storm water training?				
Any available records to indicate storm water compliance?				
Reporting Violations				
Aware of City's storm water hotline?				
Aware of County reporting hotline?				

(Compliance Checklist Continued)

Page 3

IV. STATE PERMITS

Is this facility required to have at State Water Pollution Prevention Plan (SWPPP)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is facility subject to CA Statewide General Industrial Permit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, has facility filed a Notice of Intent (NOI) to comply?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
If no, does facility have No Exposure Certification (NEC)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

V. Additional Comments

APPENDIX D: CIVIL PENALTIES MATRIX

SOLANA BEACH CIVIL PENALTIES MATRIX

The following factors will be considered in determining the amount of civil penalties from the Solana Beach Municipal Code 13.10.140 A. any person who violates any of the provisions of this chapter shall be liable for a civil penalty not to exceed \$1,000 for **each day** such a violation exists and will be assessed: (1) The seriousness of the violation (2) the duration of the violation; (3) the frequency or recurrence of the violation; (4) the history of the violation; (5) the Responsible Party's conduct after issuance of the Notice and Order; (6) the good faith efforts of the Responsible Party to comply; (7) the impact of the violation upon the community.

* Criminal Penalties.

These factors are assigned to two categories, "**Environmental Significance**" and "**Compliance Significance**," in order to easily present them in a graphical form in the matrix chart.

Environmental Significance includes the following factor: Seriousness of the violation.

Compliance Significance includes the remaining factors: The duration of the violation, frequency or recurrence of the violation, the history of the violation, the Responsible Party's conduct after issuance of the Notice and Order; the good faith efforts of the Responsible Party to comply and the impact of the violation on the community.

Environmental Significance			
Compliance Significance	Moderate	Major	Severe
Moderate	*NOV-\$100	\$100 - \$200	\$500
Major	\$100-\$200	\$500	\$1,000
Severe	\$500-\$1,000	\$1,000	\$1,000-Referral to Regulating Agency

* Notice of Violation

The list below gives examples of issues specific to storm water violations that could be considered under each of the factors.

- Increased Penalties will be factored as Notice of Violation to Moderate, Moderate to Major or Major to Severe.
- Decreased Penalties could be Severe to Major, Major to Moderate or Moderate to Notice of Violation.

Environmental Significance

Seriousness of the Violation

Relatively inert discharges (e.g., soil, sediment, cement residue, stucco residue, etc.)
[Moderate Environmental Impact]

Moderate toxicity / moderate health threat discharges (e.g., cleaning products with no specific hazard, i.e. detergent, latex paint) **[Major Environmental Impact]**

Significant toxicity / significant health threat discharges (e.g., sewage, hazardous materials/wastes, etc.) **[Severe Environmental Impact]**

SOLANA BEACH CIVIL PENALTIES MATRIX

Compliance Significance

Duration of Violation

Extent of discharge as determined by volume, area covered, how long it continued
[Greater Discharge Can Lead to Increased Penalty]

Number of days the discharge remained unabated in the conveyance system **[Unabated Discharge Can Lead to Increased Penalty]**

Impact on the Community

Results in damage, degradation, or obstruction of the storm water conveyance system
[Can lead to Increased Penalties]

Results in actual degradation of aquatic habitat in receiving waters **[Can lead to Increased Penalties]**

Results in actual impact on wildlife including benthic communities **[Can lead to Increased Penalties]**

Results in algal bloom, discoloration or odor in receiving waters **[Can lead to Increased Penalties]**

Discharge of constituent of concern within a watershed that leads to a 303 (d) listed water body **[Can lead to Increased Penalties]**

Regulated industry (e.g., subject to OSHA chemical right-to-know requirements or subject to Hazardous Material / Hazardous Waste Permit) **[Can lead to Increased Penalties]**

Recurrence of Violation

No prior administrative enforcement penalty can be a factor for officer's discretion in lowering penalties.

Prior administrative penalties action can lead to increased penalties.

Prior administrative enforcement within the last year maybe a factor in determining higher penalties leading up to a **criminal citation**.

Intentional discharge will be a factor to increase penalties leading up to a criminal citation.

SOLANA BEACH CIVIL PENALTIES MATRIX

History of Violation

Prior violations or warnings issued by other regulatory or City agencies (e.g., County Dept. of Health, County Dept. of Env. Health, RWQCB, FEWD, MWWD) [**Can lead to Increased Penalties**]

Prior warnings (letter or Notice of Violation) from Storm Water Pollution Prevention Program [**Can lead to Increased Penalties**]

Good Faith Efforts to Comply

Responsible Party failed to implement BMPs and should have known of requirement for BMPs (e.g., gasoline service station or construction industry) [**Can lead to Increased Penalties**]

Existing BMPs failed to prevent discharge (e.g., employee failed to comply with documented training and procedures or structural BMP failed to perform to design) [**Can lead to Reduced Penalties**]

Rapid and appropriate response to discharge [**Can lead to Reduced Penalties**]

The Solana Beach Municipal Code 13.10.140 A States the following:

13.10.140 Penalties for violation.

A. Civil Penalties. Any person who violates any of the provisions of this chapter shall be liable for a civil penalty not to exceed \$1,000 for **each day such a violation exists**, and all pollution detection and mitigation costs (if applicable).

B. Criminal Penalties. Any person who knowingly or intentionally violates any provision of this chapter shall be subject to liability for a misdemeanor, punishable by imprisonment for a period not to exceed one year, or a fine not to exceed \$10,000 for each day such a violation exists, or both.

C. Any monetary penalties collected by the city of Solana Beach pursuant to violations of this chapter shall be returned to the storm water management program to be used for storm water pollution monitoring and management practices. (Ord. 184 § 1, 1993)

13.10.150 Continuing violation.

Unless otherwise provided, a person, firm, corporation or organization shall be deemed to have committed a separate offense for each and every day during

any portion of which a violation of this chapter is committed, continued or permitted by the person, firm, corporation or organization and shall be punishable accordingly as herein provided. (Ord. 184 § 1, 1993)

13.10.160 Concealment.

Causing, permitting, aiding, abetting or concealing a violation of any provision of this chapter shall constitute a violation of such provision. (Ord. 184 § 1, 1993)

13.10.170 Acts potentially resulting in violation of Federal Clean Water Act and/or Porter-Cologne Act.

Any person who violates any provision of this chapter, any provision of any permit issued pursuant to this chapter, or who discharges waste or wastewater which causes pollution, or who violates any cease and desist order, prohibition, or effluent limitation, may also be in violation of the Federal Clean Water Act and/or Porter-Cologne Act and may be subject to the sanctions of those Acts including civil and criminal liability. Any enforcement action authorized under this chapter should also include notice to the violator of such potential liability. (Ord. 184 § 1, 1993)

13.10.180 Violations deemed a public nuisance.

A. In addition to the penalties hereinbefore provided, any condition caused or permitted to exist in violation of any of the provisions of this chapter is a threat to the public health, safety and welfare and is declared and deemed a public nuisance and to impact storm water quality, and such nuisance may be summarily abated and/or restored by any authorized enforcement official. Civil action to abate, enjoin or otherwise compel the cessation of such nuisance may be taken by the city attorney.

B. The cost of such abatement and restoration shall be borne by the owner of the property and the cost thereof shall be a lien upon and against the property and such lien shall continue in existence until the same shall be paid. If the lien is not satisfied by the owner of the property within three months after the completion by the authorized enforcement official of the removal of the nuisance and the restoration of the property to its original condition, the property may be sold in satisfaction thereof in a like manner as other real property is sold under execution.

C. If any violation of this chapter constitutes a seasonal and recurrent nuisance, the city of Solana Beach shall so declare. Thereafter such seasonal and recurrent nuisance shall be abated every year without the necessity of any further hearing. (Ord. 184 § 1, 1993)

13.10.190 Civil actions.

In addition to any other remedies provided in this section, any violation of this chapter may be enforced by civil action brought by the city of Solana Beach. In any such action, the city of Solana Beach may seek, and the court shall grant, as appropriate, any or all of the following remedies:

A. Injunctive relief;

B. Assessment of the violator for the costs of any investigation, inspection, or monitoring survey which led to the establishment of the violation, and for the reasonable costs of preparing and bringing legal action under this subsection;

C. Costs incurred in removing, correcting, or terminating the adverse effects resulting from the violation;

D. Compensatory damages for loss or destruction to water quality, wildlife, fish and aquatic life. Assessments under this subsection shall be paid to the city of Solana Beach to be used for costs associated with monitoring and establishing storm water discharge pollution control systems and/or implementing or enforcing the provisions of this chapter. (Ord. 184 § 1, 1993)

APPENDIX E: SHORELINES NEWSLETTER SPRING 2006

Planning Department HIGHLIGHTS

The State of California and local jurisdictions establish criteria for public review and consideration of many types of projects. The following is a list of the larger projects that have been presented to the City of Solana Beach for our community's consideration. For further information, please contact the City Staff member assigned to review the projects at the telephone number listed. (All area codes 858 unless otherwise noted)

- **NCTD Commuter Rail Site** - A "smart growth" mixed-use project at the existing train station site has been proposed by the North County Transit District (NCTD) with a private sector partner. The NCTD is working with Mr. Greg Shannon of Sheadon and has submitted revised plans in response to view impairment concerns raised by the original design. An Environmental Impact Report is scheduled to be completed and available for review no earlier than late April 2006, with the first public hearing tentatively scheduled for late September, 2006. (Lori Naylor 720-2444)
- **Gateway/Magellan Property** - Triangular-shaped parcel at the north end of town bound by Highway 101, San Elijo Lagoon, and the railroad. At press time, staff had received an application superseding the earlier 98-room hotel and 17-unit residential project proposal which has been renamed the Gateway Resort. The new design contains 30 cottage style units with a maximum height of 16 feet above existing grade, potentially including a different marketing/ownership concept. (Lori Naylor 720-2444)
- **View Projects** - Watch for story poles. Last summer the City administered its 450th structure development view application (SDP), and is presently approaching application number 475. (Kathy Johnson 720-2445)
- **Pacific Solana Lifestyle Center** - An approximately 50,000 square-foot building with underground parking has been proposed in the existing parking lot behind Vons on Marine View Avenue. This proposal supersedes the previous 75-unit residential project at the same location. (Kevin Pointer 720-2446)
- **Cingular Wireless Stealth Tree Communication Antenna** - A stealth, artificial broad-leaved pine "tree" has been proposed on the Lomas Santa Fe Country Club golf course near the existing artificial palm tree communication antenna. (Kevin Pointer 720-2446)
- **Numerous Single-Family Projects** - Extensive remodels, new homes, and small subdivisions. (Kathy Johnson 720-2445 or Kevin Pointer 720-2446)
- **Housing Element Update of the General Plan** - A countywide, State-mandated update of all City Housing Elements, including Solana Beach, is underway. (The Housing Element is a component of the General Plan.) No density changes are proposed for Solana Beach. At the time this newsletter was being prepared, the official adoption of the update was scheduled for February 22, 2006. (Debbie Miller or Steven Apple 720-2441 for confirmation)
- **Beach Sand for Solana Beach** - This is an ongoing local and regional effort to obtain more beach sand for our City's beaches. The Army Corps of Engineers recently released the long awaited \$3.9 million study for the comprehensive Shoreline Feasibility Study for Encinitas and Solana Beach. The document may be viewed at www.spl.usace.army.mil. (Call Steven Apple at 720-2441)
- **Local Coastal Plan** - The Local Coastal Plan (LCP) takes over policy directives from the California Coastal Commission regarding coastal property development in Solana Beach. A legal group of prominent citizens has prepared an LCP-related report and recommendations, which is available on the City website. Policy discussions on these suggestions/recommendations began in January 2006 and will continue throughout the year. (Debbie Miller or Steven Apple 720-2441)
- **L & S Investments** - This project located across from the Solana Beach Post Office is a mixed-use retail, office, and residential property located at 201 South Highway 101. The project has been conditionally approved with the new owners recently receiving approval of a minor redesign of the project. (Kathy Johnson 720-2445)
- **Fletcher Cove Master Plan Implementation** - New restrooms were completed in 2005 and upgrading/expanding recreational uses in the park are being finalized in discussions with the Coastal Commission. The first community workshop was held on December 7, 2005 with City Staff continuing to encourage Coastal Commission staff to finalize and issue all related permits as quickly as possible. (Steven Apple 720-2441)



Street Sweeping Schedule

Street sweeping is a very important service provided by the City, not only for aesthetic purposes, but environmental ones as well. Street sweepers pick up litter and debris that can harbor harmful pollutants that transport to the storm drains and eventually the ocean and lagoons. These pollutants can have harmful effects on the environment as well as public health, so removing them before they enter the storm drains is extremely important.

The City has recently increased enforcement for street sweeping regulations in all areas with signs posted. The City's Code Compliance Department is now writing parking tickets in areas with signs displaying the day and time of street sweeping activities. The City sweeps every street within the City limits at least once a month. Please review the schedule below and park your cars off the street during the designated sweeping times. That way you can avoid a citation and the street sweeper can effectively pick up all the debris. If you have questions contact Lori Borowski at (858) 720-2471.

- Northwest section, north of Lomas Santa Fe, west of I-5, will be swept on the first Tuesday of each month.
- Southwest section, south of Lomas Santa Fe, west of I-5, will be swept on the second Tuesday of each month.
- Northeast section, north of Lomas Santa Fe, east of I-5, will be swept on the third Tuesday of each month.
- Southeast section, south of Lomas Santa Fe, east of I-5, will be swept on the fourth Tuesday of each month.



Solana Center Provides Environmental Education

At the Solana Center, we work to create a healthy living environment. We provide over 300 community presentations a year to schools and service groups, to educate San Diego residents about how to safely dispose of household hazardous waste, including motor oil – a dangerous and pervasive pollutant. Over 40% of all oil pollution in U.S. waterways is a direct result of used motor oil, and over half of this amount originates from do-it-yourself oil changes.

Our environmental education programs, in collaboration with Solana Beach and other area cities, focus on San Diego watersheds, and the impacts of pollution. During the pollution prevention presentations with children, we use the interactive Enviroscape® watershed model and EcoPuppets to represent the correlation between human actions and environmental impact.

As part of the presentation, student volunteers role-play community members who are convinced that their actions do not affect others in the neighborhood. Their roles include do-it-yourself residents who absent-mindedly change their motor oil,



and then pour it down a neighborhood storm drain – unaware that the storm drain flows directly to the ocean.

The class then leads the educator through the ripple effects that follow – the oil makes its way through the storm drain, straight to the ocean, and begins to affect the marine life just introduced as EcoPuppets. Children decide what would happen to the food chain as each species comes into contact with the toxic oil. Students learn the interconnectedness of animal and human life, and how our actions have consequences that extend far beyond one person. Children are encouraged to discuss as a class how they can change their own behavior and educate family and friends to act as watershed stewards, including safe disposal of oil, household hazardous waste and reducing everyday trash.

To schedule environmental education programs in your community or school, contact the Solana Center for Environmental Innovation, (760) 436-7986 x211 or email: jan@solanacenter.org. More program information available at: www.solanacenter.org.

Program Updates:

For information on the Annual Spring Egg Hunt (tentatively scheduled for Saturday, April 8, 2006 at La Colonia Community Center) please call 793-2564. Look for a Spring Festival in April of 2007.

The Kids Summer Day Camps will begin the week of June 26, 2006. The classes and schedule will be announced in the May Shorelines.



Share the Dream

Construction Underway at Solana Beach Boys & Girls Club

Renovation of Newly Named Barbara Harper Branch and Pardee Aquatics Center Begins

The Boys & Girls Club of San Dieguito "Share the Dream" capital campaign to renovate the facilities in Solana Beach has begun. Demolition crews have already knocked down the old clubhouse to make way for the new Barbara Harper branch and Doug & Marianne Pardee Aquatics Center. Completion of the project should be about 18 months. The new facilities will be a positive place the entire community can share.

Construction will be done in two phases to allow the Aquatics Center to be open the entire time. DPR Construction, Inc., a forward-thinking national general contractor specializing in technically challenging and sustainable projects, is handling the renovation of the Lomas Santa Fe site.

The Boys & Girls Clubs of San Dieguito will be celebrating their 40th anniversary in 2006. In the past thirty-nine years, they have encouraged, guided, and reshaped lives of over 200,000 children. They focus on continuing to be The POSITIVE Place for Kids by providing programs which will help kids grow

emotionally, socially, and academically into tomorrow's leaders. The "Share the Dream" project is a part of that dedication to the future. For more information on the "Share the Dream" project, please visit www.bgcsgdo.org/sharethedream.htm or call (858) 755-9371.



APPENDIX F: SHORELINES NEWSLETTER FALL/WINTER 2004/2005

Recycling Information

The City of Solana Beach Is Serious About Environmental Issues

The City of Solana Beach now has a full time Environmental Specialist, Danny King, on board to handle the various environmental programs throughout the City. Mr. King handles the solid waste contracts, Household Hazardous Waste Program, Recycling Program, and the Storm Water Program. If you have any questions about these programs, or see anything around town that should be brought to his attention, please feel free to contact Danny King at (858) 720-2477 or by e-mail at dking@cosb.org. If you want to know the current water quality conditions of the beaches in Solana Beach, just visit www.healthbay.org or www.earth911.org.



Automated Trash Pick-Up Program Announced

The City of Solana Beach, in conjunction with Coast Waste Management, the City's residential refuse franchise service provider, has proposed a residential trash and recycling automated pick-up pilot program to residential customers that would enhance service delivery of solid waste services for curbside pick-up of trash, green waste, and recyclable materials. The pilot program consists of replacing individual trash cans that residents currently use on their property with uniform wheeled totes from Coast Waste Management that come in 96, 64, or 32 gallon sizes. This program has proven to increase the efficiency of trash removal and increase recyclables to meet AB939 recycling diversion rates. 110 property owners of the City's Barbara Avenue Neighborhood have been selected by the City Council for the automated trash pick-up pilot program. The pilot program will begin in October 2004 and will be conducted for a six month period to evaluate the effectiveness and service delivery of automated curb-side pick up of trash and recyclables. A report will be generated at the conclusion of the pilot program to make service recommendations for automated community-wide residential pick-up program. Residents will be asked to provide input on the services provided under the automated pick-up pilot program. Stay tuned for more information on the start of the program. For more information, please contact Danny King, the City's Environmental Program Specialist at (858) 720-2477.

Construction

Winter is upon us, and construction projects will soon be under stricter storm water regulations. All construction activities are subject to environmental regulations, even small single family remodeling and redevelopments. Storm water BMPs (Best Management Practices) are required to control erosion and water run-off. Failure to properly control storm water run-off from your construction site can lead to fines levied on the contractor *AS WELL AS* the property owner. So, it is highly recommended that all property owners ensure that their contractors are well aware of the storm water requirements or risk heavy fines. For more information, please contact the City's Environmental Specialist Danny King at (858) 720-2477.



Storm Water Hotline!



To report illegal dumping or excessive water run-off to the City's Storm Drain Conveyance System, call the City's 24-hour Storm Water Hotline message center at 858-720-2400 x 2512 or send an email to stormwater@cosb.org. Messages can be anonymous and are checked throughout the day and calls are promptly returned.

Used Tire Recycling

Several old car tires were retrieved from the San Elijo Lagoon during last year's Annual Beach Clean-Up Day. Old tires pose a significant threat to our sensitive waterways and can drastically affect the delicate environmental ecosystem. Please be responsible and recycle your old tires by taking them into a certified recycling center. Discount Tire Co. Inc. in Solana Beach will take old tires and dispose of them for \$3.00 a tire. This is much cheaper than any landfill in San Diego. Their telephone number is (858) 481-6387, and they are located at 685 San Rodolfo Drive in Solana Beach. For more information, please call Danny King at (858) 720-2477.



Household Hazardous Waste Program

Do you have old paint or fertilizers cluttering up your garage? Do you have old batteries or household chemicals that you want to get rid of? Well, now is the time. The City of Solana Beach has a wonderful Household Hazardous Waste Program that can help you get rid of all your hazardous waste materials. For a small fee of \$10 dollars per visit, you can get service to your door where your hazardous wastes will be removed and disposed of properly. To schedule an appointment for home HHW collection, please call 1-800-714-1195. Or, you can bring the waste to one of two specialized collection centers (Poway or Vista) and the City will pay for the disposal costs, so it's completely **FREE**.

Some common HHW are:

Aerosols & Solvents
Cleaners & Disinfectants
Antifreeze & Oil
Gasoline

Batteries
Insecticides & Fertilizers
All Paint & Thinners
Varnishes

Pool Chemicals
Lighter Fluid
Asbestos
Latex



Effective as of July 1, 2004, there is an additional charge to dispose of your electronic waste through the Door-To-Door Collection Program. It will still be free to dispose of the E-waste at the collection facilities in Vista and Poway, but there will be a fee if you choose to have your electronic waste picked up from your home. For additional information, please contact Danny King at (858) 720-2477.

Used Oil Recycling & Collection Centers

Changing the oil in your car this weekend? There are a number of establishments in the area that will accept your used oil free of charge so that it can be re-refined and recycled. Need a free used oil collection container to use when changing your oil? Stop by our office and pick one up courtesy of the City of Solana Beach. Come to the Solana Center, 137 N. El Camino Real, Encinitas (up the hill behind the Sheriff's station) (760) 436-7986.

When recycling your motor oil, don't forget the filter! Californians generate more than 50 million used oil filters each year; yet only 20 million are recycled. That's less than half and most of these are from auto service shops. On the other hand, 90% of all do-it-yourselfers throw away their filters. Oil filters that are tossed in the trash can leak oil on your driveway or street where it can wash into a storm drain and end up in the ocean. Many auto repair, auto parts (Pep Boys) and service stations (Jiffy Lube) accept used oil and filters for recycling. Please check locally for recycling retailers and support their environmentally conscious efforts to avoid pollution. FREE Used Oil Collection Containers are available at most of the centers or you can pick one up at our office:

Solana Center for Environmental Innovation (760) 436-7986
137 N. El Camino Real / Encinitas, CA 92024
Monday – Friday / 9:00 a.m. – 5:00 p.m.

Closing the Recycling Loop in Solana Beach

Recycling is on the rise in Solana Beach! The tonnage of material diverted from disposal has increased from 46% in 2000 to 53% in 2003. However, putting your material out at the curb for recycling is only part of the equation. To "close the loop" it's essential to purchase products made from recycled materials. Recycled paper is a case in point. Buying recycled saves energy, water and trees while creating demand for all the paper collected in the Solana Beach curbside-recycling program.

There's now a local source for recycled paper that's just a few mouse clicks away. The mission of the Recycled Products Cooperative, a program of the Solana Center for Environmental Innovation, is to reduce the cost of recycled paper through mass buying power. Since 1999, Co-op sales of recycled copy paper have saved the equivalent of 48,741 trees, 14,216,407 gallons of water, 8,326,754 kilo watt hours of electricity and prevented 121,856 pounds of air pollution.

The Co-op's product line has now expanded to include a wide range of recycled office products. Our new online store www.recycledproducts.org is your one stop shop for the best in recycled supplies for home or office. We're also now stocking 100% recycled copy paper for local pick-up or delivery. The Recycled Products Cooperative invites businesses of Solana Beach to join Encinitas businesses such as Lyon & Associates Creative Services, Inc. and USAopoly in using this superb product. Please visit our website or call us for more information at (760) 436-7986.

Door-to-Door Household

Hazardous Waste Collection in Solana Beach

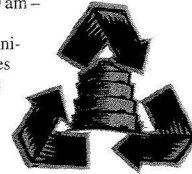
Home collection of HHW is now available to all residents of Solana Beach. This service is available free of charge to qualifying seniors (65+) and homebound disabled citizens. Residents not qualifying for free pickup service will be charged a \$10 co-payment. For additional information on home pickups and to schedule an appointment, please call (800) 714-1195. Currently residents not qualifying for free pickup service can take their items to either the Vista or Poway HHW facilities listed above. Proof of residency is required for these programs.

Recycling Center in Del Mar

Waste Management's local recycling center, located at 2265 Jimmy Durante Blvd, will pay you for certain recyclable products. Electronic waste (e-waste) may also be dropped off at Waste Management's Recycle Center. This is separate from the City's HHW program and there is a fee for e-waste here. The hours of operation are Tuesday through Saturday 8:00 am – 4:00 pm.

E-waste is considered computer and monitors, televisions, VCR's, DVD's, cell phones and other electronic devices. These items contain hazardous material that is harmful to the environment and cannot be disposed of in a landfill. E-waste items are safely dismantled and the hazardous materials are disposed of properly.

The remaining materials are recycled. There is a charge of \$.50 per pound at the time of drop off for the handling and processing of E-waste items. For more information on the Recycling Center in Del Mar or the services it provides, please call 1-800-386-7783.



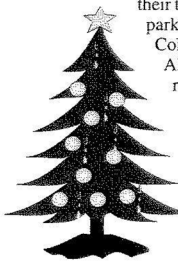
Holiday Tree Recycling/Collection Program

The City of Solana Beach, in partnership with Coast Waste Management, Inc. has a Christmas tree recycling and collection program that allows residents to drop off their trees for recycling or be picked up at the curb for collection. This service is free to all Solana Beach residents and will operate starting December 26, 2004 through January 7, 2005.

Holiday Tree Recycling

There will be two locations where residents may drop off their trees for recycling. They are the Fletcher Cove parking lot at 140 S. Sierra Avenue and the La Colonia Community Center at 715 Valley Avenue.

All ornaments, tinsel, and tree stands must be removed and no flocked trees will be accepted.



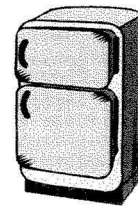
Holiday Tree Collection

For curbside pick-up, all trees, including flocked trees, must be cut into sections no larger than 4-feet long and placed out on the curb to be collected by the trash drivers. All ornaments, tinsel, and tree stands must be removed.

Bulky Items Clean-Up Day

This year's Annual Clean-Up Day is scheduled for **October 9th, 2004, from 9:00 am to 3:00 pm., in the La Colonia Community Center parking lot at the Valley Avenue entrance.** During this event, Waste Management will provide roll-off containers for the collection of large bulky waste, such as appliances, furniture, scrap metal, mattresses, and yard waste. Additionally, Solana Beach residents who call Waste Management between September 20th and October 1st, 2004, can receive *free curbside pick-up and disposal of up to three bulky items.* Residents are required to setout materials to be collected by 7:00 am on the day of the event. If you would like this *free* service, contact Waste Management at 1-(800)-DUMPSTER to schedule the appointment.

If you have any questions regarding the Annual Clean-Up Day or the free curbside pick-up, please contact Danny King at (858) 720-2477.



APPENDIX G: SHORELINES NEWSLETTER SUMMER 2006

The City's Aging Sewer System

is long overdue for upgrades. A few years ago a sewer master plan was prepared that evaluated the existing system and made recommendations for improvements and replacements. Three major facilities recommended to be replaced are the Solana Beach Force Main, the Eden Gardens Pump Station and Solana Beach Pump Station, which are all over 40 years old. These facilities were built by the County in the 1960's and the City took control of these facilities upon incorporation in 1986. Construction costs have been estimated at approximately \$16 million for all three projects.



The City has completed some upgrades to the sewer system and installed 7800 lineal feet of new

24" diameter sewer trunk line at a cost of approximately \$1 million in conjunction with the Lomas Santa Fe Grade Separation project. In 2000 the City constructed a siphon control facility on the San Elijo Lagoon at a cost of \$1.7 million.

SOLANA BEACH FORCE MAIN is a pipe that carries 90% of the City's sewage underneath the San Elijo Lagoon from the Solana Beach Pump Station, located at the north end of the City, east of the railroad tracks, to the San Elijo Joint Powers Authority wastewater treatment facility on Manchester Avenue in Cardiff.

When sewage cannot flow downhill (by gravity) due to topography, then pump stations are used to lift sewer flows from a low point to a higher point through a force main which is a sewer line that flows under pressure (similar to water lines) instead of gravity.

The Solana Beach Force Main is an existing 12-inch diameter asbestos cement pipe installed in the mid-60's under the San Elijo Lagoon which has been identified as the top priority for replacement. Design of the new Force Main is currently 80% complete. State and Federal environmental approvals have been granted with a condition that restricts construction to a period between September and March, thus construction is anticipated to begin in the fall of 2006. The new 16" pipe will be installed using a trenchless Horizontal Directional Drilling (HDD) construction method. Construction cost is estimated to be about \$6 million, of which one third of the funding has been identified through grant funds.

EDEN GARDENS PUMP STATION, located at the south end of the City on Valley Avenue near Via de la Valle, pumps approximately half of the City's sewage north to the Solana Beach Pump Station. The Eden Gardens Pump Station was originally constructed in 1960. A complete replacement of the facility has been designed, including architectural treatments, improved landscaping, street curbs and a sidewalk from the corner of Highland and Valley to the adjacent bus stop. A bus stop canopy and bench is also included. The project was recently advertised for bids and the low bid was about \$4.6 million, an amount well over the budgeted cost. Due to funding shortfalls and the Force Main being the top priority, this project will be postponed until funding is available.

SOLANA BEACH PUMP STATION Re-design of the Solana Beach Pump Station has not begun. The City's budget identifies initial funding for this project in fiscal year 2008/2009. The City is pursuing grant funds for design and construction of the Solana Beach Pump Station.



NEW Local Recycling Options for Alkaline Batteries and Electronic Waste



Effective February 9, 2006, a new California law took effect which prohibits the disposal of household "universal waste" items such as batteries, old cell phones and fluorescent tubes and bulbs in residential trash. Products such as these contain low levels of hazardous materials such as lead, mercury, cadmium and chromium which can potentially contaminate soil and groundwater if disposed in the trash and subsequently deposited into landfills.

The new universal waste regulations now join electronic waste and household hazardous waste to specify a range of consumer products that may not be disposed of in the regular trash. With the new regulations come new recycling options for Solana Beach residents:

- Del Mar and Solana Beach residents can bring household alkaline batteries (AA, AAA, C and D cells, and button batteries) to Waste Management's Del Mar Recycling Center at 2265 Jimmy Durante Boulevard. Batteries are accepted free on Tuesday - Saturday, between 8 a.m. and 4 p.m. (the center is closed for lunch from 1:00 - 1:40 p.m.).
- The Del Mar Recycling Center also accepts electronic waste including computers, monitors, television and cell phones. Monitors, televisions and laptop computers can be dropped off at no charge, a fee is charged on all other electronic waste at \$.50 per pound. For more information on battery and electronic waste recycling, call Waste Management at (800) 386-7783.

For other household hazardous waste, such as unused paint, pesticides, used motor oil, car batteries, fluorescent tubes and mercury thermometers, residents of Del Mar and Solana Beach may dispose of these items for free on Saturdays only at the Poway and Vista household hazardous waste collection facilities. See the listing below for the location and hours of operation for these facilities.

Solana Beach residents may also receive collection of household hazardous waste, electronic and universal waste items at their home for a \$10 co-payment. This service is free to senior citizens and homebound residents. For more information on home pick-up, please call (800) 444-4244.





**City of Solana Beach
Department of Parks and Recreation
2006 Summer Camp Program Schedule
Summer Session: June 19 - August 11, 2006**

**ALL of the Summer Day Camps are for children ages 6-12 years.
(Kids entering 1st grade - Jr. High)**

Awesome Astronomy

Session 1, June 26 - 30, 2006

This delightful camp will explore the fascinating world above our heads. Activities will include a variety of theme related games and craft projects as well as several projects that will enlighten children's awareness and knowledge of the Solar System and its affects on Earth. A field trip to the Ruben H. Fleet Space Theater and Science Center is part of this interesting summer camp. The camp meets Monday through Thursday from 9:00 a.m. to 2:00 p.m. at San Dieguito Park and on Friday at Fletcher Cove. The fee is \$90.00 per child.



Fantastic Rain Forest

Session 2, July 10 - 14, 2006

The Fantastic Rain Forest Camp will be filled with activities to enlighten children's awareness of the wonderful world hidden in the Earth's Rain Forests. The program includes theme related crafts and games as well as a visit from the Park Ranger, a cook out, and a special field trip to the Natural History Museum in Balboa Park. The camp meets Monday through Thursday from 9:00 a.m. to 2:00 p.m. at San Dieguito Park and on Friday at Fletcher Cove. The fee is \$90.00 per child.



**Solana Beach Department of Parks and Recreation
Kids Summer 2006 Day Camp - REGISTRATION FORM**

Register for:

____ Session I, Awesome Astronomy - June 26 - 30, 2006
____ Session II, Fantastic Rain Forest - July 10 - 14, 2006
____ Session III, Ecology & Lagoon Exploration - July 24 - 28, 2006

____ Session IV, Awesome Olympics - August 7 - 11, 2006
____ Special Session, Dance To the Stars - June 19 - 29, 2006

Child's Name _____ Grade in Fall _____ Age _____
Address _____
City _____ Zip _____
School child attends _____
Daytime Phone _____ Emergency Phone No. _____

A detailed information sheet will be mailed to you with your confirmation.
For more information contact the Recreation Department at: 858-793-2564.

Release of Liability

I will not hold the instructors, sponsors, officials or members of the City of Solana Beach Department of Parks & Recreation responsible for any injury that any participant might incur while in the program.

Parent/or Guardian _____

*Please mail or deliver with your payment to: City of Solana Beach, Dept. of Parks & Recreation
635 South Highway 101, Solana Beach, CA 92075*

Day Camps I-IV fee: \$90.00
(Scholarships available for
Solana Beach Students)

Circle T-shirt size:

Child: S M L
Adult: S M L XL

(Cancellation fee \$20.00)

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APPENDIX H: CONSTRUCTION BMP GUIDE



STORMWATER BEST MANAGEMENT PRACTICE (BMP) GUIDE for CONSTRUCTION and BUILDING ACTIVITIES

STORMWATER POLLUTION

When rain flows over streets and other surfaces, it picks up pollutants and carries them into the stormwater conveyance ("storm drain") system. The storm drain system is designed to prevent flooding by transporting water away from urban areas. Unfortunately, this water and all the contaminants it contains eventually flow to our streams, lakes, and the ocean contains where we swim and fish. Once there, polluted runoff can harm wildlife and their habitats. In some cases, it can even cause beach closures or make our fish and shellfish unsafe to eat.

Construction activities can be a significant source of stormwater contamination. During the life of a project, many types of materials and wastes are routinely used or generated. If not properly managed, sediment and other pollutants (paint, concrete, drywall, fuels, solvents, etc.) can be washed or tracked offsite, eventually entering the storm drain system. It might not seem like your activities alone could be damaging to the environment, but the cumulative impact of all of the construction projects conducted throughout the City every year can seriously impact the health of our local waterbodies.



What are you adding?

For more information, or to report stormwater pollution, pick up the phone and dial (358) 720-2477 and speak to the Engineering Department.

PROJECTS 1 ACRE AND GREATER

If your project will disturb at least one acre of land, you must also obtain coverage under the Statewide General Construction Activity Stormwater Permit. This permit, issued by the California State Water Resources Control Board (SWRCB) and to implement BMPs to reduce stormwater pollutants both during and after construction is completed. For information on obtaining coverage under the General Construction Permit, and other available resources, contact the SWRCB at (916) 341-5537.

YOUR RESPONSIBILITIES

City of Solana Beach Stormwater Ordinance prohibits the discharge of pollutants to the storm drain system. Simply stated, only rain may legally enter the storm drain. As a construction site owner or operator, you are legally responsible for ensuring that sediment and other construction-related pollutants are properly managed. This means that pollutants from your site may not enter the storm drain system or any receiving water (such as creeks, streams, etc.) either directly or indirectly. You can also be held responsible for discharges or environmental damage caused by your employees or subcontractors.

Your grading and construction activities will be reviewed by City staff during plan check and site inspection to verify their compliance with the Stormwater Ordinance and related provisions of the City Grading Ordinance. Failure to comply with these regulations can result in civil and criminal penalties.

BEST MANAGEMENT PRACTICES (BMPs)

Best Management Practices (BMPs) are activities or practices designed to reduce or eliminate pollutants in stormwater. Proper selection and implementation of BMPs will help you to prevent stormwater pollution from your site. On the following pages, a number of BMPs that apply to erosion control and other construction activities are described. It is your responsibility to determine which of these (or other BMP) are most appropriate for your project, and to implement them accordingly. The success of your efforts will ultimately depend on whether or not you have prevented pollutants from leaving the site.

Remember, knowledge is the most important tool on your site. Training your employees and subcontractors is the best way to ensure that your BMPs are implemented and maintained effectively.

EROSION CONTROL BMPs

EROSION CONTROL STRATEGY

Sediment is the most common pollutant washed from construction sites. It also transports numerous other contaminants such as paint, cement wash, asphalt, and automotive fluids. Sediment loss is best controlled by using a combination of BMPs to target each stage of the erosion process. This should include the following general steps:

- Step 1. Use advance planning and scheduling
- Step 2. Stabilize slopes and exposed surfaces
- Step 3. Divert or dissipate onsite flows.
- Step 4. Capture sediment from runoff.

STEP 1: PLANNING AND SCHEDULING

Planning and scheduling should always be part of your erosion control strategy. Effective planning can greatly reduce the need for other costly and time-consuming solutions. It can also save you considerable money. Whenever possible, plan your project to utilize existing topography, drainage patterns, and vegetation. This will significantly reduce the potential for erosion both during and after construction.

Grading and clearing should be phased to reduce the amount and the duration of sediment exposure. If possible, schedule grading during the dry season (Mid-April through October), particularly avoiding December through February. Always be aware of forecasted weather conditions prior to any scheduled grading or clearing activities.

For weather forecasts, contact the National Weather Service at (858) 675-8700, or visit www.weather.com.

STEP 2. STABILIZING SLOPES AND SURFACES

The City Grading Ordinance requires that slopes be stabilized as soon as they are created to increase their resistance to erosion. When permanent stabilization of slopes or other exposed surfaces is not yet feasible, temporary measures should always be used. A number of practical solutions can be used.

Preservation of Existing Vegetation.

Leaving existing vegetation (trees, vines, shrubs, grasses, etc.) in place can minimize the potential for erosion as well as the need for other costly controls.

Seeding and Planting. Seeding grasses and planting trees or ground cover provides long-term stabilization of slopes and soils. Schedule landscaping to permanently cover exposed surfaces as soon as they are created.

Mulching. Mulches (such as wood chips, bark, straw, gravel, etc.) can be used to temporarily or permanently stabilize cleared or freshly seeded areas. Mulches should be inspected weekly and after rain for damage or deterioration.

Geotextiles and Mats. Geotextiles and matings can be used for temporary or permanent soil stabilization, and are especially effective on steep slopes and channels. They should be inspected monthly and after significant rainfall.

Stabilization of Vehicle Traffic Areas. All areas of significant vehicle traffic (site entrances, access roads, parking lots, etc.) should be stabilized immediately after grading to prevent erosion and control dust. Site entrances and exits are especially important. Use gravel approaches to limit tracking of sediment offsite.

Remember, the effectiveness of BMPs you use will depend on their proper implementation and maintenance. Routine inspection and evaluation, especially before and after rainfall, should be part of your pollution control strategy.

Step 3: DIVERTING AND DISSIPATING FLOW

Effectively preventing sediment erosion generally requires a combination of surface stabilization and onsite flow control. Flow control methods reduce the ability of rainwater to erode sediments either by decreasing its velocity or by channeling it away from exposed surfaces. A number of practices are commonly used.

Earthen Dikes. Earthen dikes are berms or ridges of compacted soil (or other onsite materials) that divert flow away from slopes or other exposed areas. They are relatively inexpensive and can be constructed during initial grading operations.

Temporary Drains and Swales. Temporary drains and swales can be used to divert runoff around the site or disturbed areas.

Slope Drains. Slope drains are temporary pipes or lined channels that drain the top of a slope to a stable discharge point at the bottom.

When using flow diversion BMPs, remember that concentrated flows must be dissipated. Flow dissipation (check dams, rip rap, etc.) should always be used at drain or channel outlets to reduce runoff velocity and promote sedimentation. Care should also be taken not to disturb downstream properties.



Step 4: CAPTURING SEDIMENT FROM RUNOFF

Because sediment erosion can never be completely prevented, your control strategy should also include BMPs designed to recapture sediment from flows. The following methods are commonly used to promote sedimentation by filtering or trapping runoff.

Silt fences. Silt fences are a filter fabric attached to supporting poles, sometimes backed by wire. They are used in areas of sheet flow. Silt fences require frequent inspection, especially before and after rainfall.

Straw Bale Barriers. Straw bales can be used to create a temporary sediment trap in areas of sheet or rill flow. Bales are entrenched and placed end to end along a level contour. They should be inspected frequently since they tend to deteriorate.

Sand Bag Barriers. Stacking sand bags along a level contour can create a temporary sediment trap by ponding water upstream of a barrier. Sand bags are very versatile and can be used in a number of applications.

Brush and Rock Filters. Barriers constructed of brush or rock (3/4" to 3" diameter) can be used in areas of sheet or rill (channelized surfaces) flow to reduce velocity and trap sediment. They must be properly anchored, and should be inspected at least monthly and after each rainfall.

Sediment Traps and Basins. Traps and basins are excavated or constructed (berms, embankments, etc.) areas where runoff is trapped and sedimentation occurs. Traps are used for small drainage areas (less than 5 acres) and basins for larger ones. Both traps and basins should be constructed before clearing, grading, and grubbing begins, and located where they can be easily cleaned out.

Storm Drain Inlet and Creek Protection. Your erosion control strategy should always address the protection of onsite or down-gradient storm drain inlets and waterbodies. Discharges of pollutants to storm drains, or streams and other waterbodies, may result in violations of the City Stormwater and Grading Ordinances, the Federal Clean Water Act, and the California Fish and Game Code.

GENERAL CONSTRUCTION BMPs

In addition to sediment, many other types of pollutants are used or generated during building and construction.

Paint Wastes	Cement Wash	Drywall	Solvents	Adhesives
Glues	Trash	Cleared Vegetation	Wood	Asphalt
Demolition Wastes	Vehicle Fluids	Septic Wastes	Asbestos	Acids

Remember, discharging anything other than rain to the storm drain is against the law. All materials and wastes must be managed and disposed of properly. The BMP described below will help to prevent stormwater pollution from your construction activities.

MATERIALS and WASTE MANAGEMENT

- Use designated delivery, pickup, and storage areas away from drainage paths and waterways.
- Store only the materials you need onsite.
- Store materials (especially open bags) under a roof or inside a building. Cover and berm around storage areas. Cover materials stored outside with waterproof tarps.
- Keep an inventory of materials and regularly inspect storage areas.
- Store and dispose of wastes as required by Federal, State, and local regulations.
- Use watertight dumpsters.
- Wash out concrete trucks offsite or in a designated area (e.g. a temporary pit where the concrete can set, be broken up, and then disposed of properly).

SPILL CONTROL

- Train employees on spill prevention and cleanup.
- Make sure cleanup materials are easily accessible.
- Use secondary containment (drain pans, drop cloths, etc.) to catch spills and leaks.
- Clean up spills immediately.
- Use as little water as possible ("dry" methods) for washing and spill cleanup.

VEHICLES AND EQUIPMENT (Cleaning, Fueling, and Maintenance)

- Fuel, maintain, and wash vehicles offsite.
- If conducting activities onsite, use designated areas. Cover and berm work areas as necessary.
- Properly maintain vehicles and equipment to prevent leaks.

Technical Information

The following documents provide detailed guidance on designing and implementing specific BMPs.

California Construction Stormwater BMP Handbook. Available from Blue Print Service, (510) 287-5485.

Caltrans Stormwater Quality Handbooks. Available from Publications Distribution Unit, (916) 445-3520

Additional Resources


City of Solana Beach Engineering Department
(858) 720-2477 www.ci.solana-beach.ca.us/

San Diego Regional Water Quality Control Board (SDRWQCB)
(858) 487-2952 www.swrcb.ca.gov/rwqcb9/

California State Water Resources Control Board (SWRCB)
(916) 341-5250 www.swrcb.ca.gov

U.S. Environmental Protection Agency (Region 9)
(415) 972-3510

APPENDIX I: BUILDING PLAN CHECK COMMENT FORM



CITY OF SOLANA BEACH
C/O CITY OF ENCINITAS BUILDING DIVISION
 505 S. Vulcan Avenue, Encinitas, CA 92024-3633
 (760) 633-2730
APPLICATION TRACKING FORM

Plancheck No.: _____
 Received by: _____
 Date: _____

Site Address _____
 Site Business Name _____
 Object/Property Owner's Name _____
 Contact Person _____
 Address _____
 Object Description _____

Suite # _____
 APN _____
 Phone # _____
 Fax # _____
 Sq. Ft. _____

Discretionary Permit Applicable? _____

Will the building be equipped with fire sprinklers? ☐ Yes ☐ No Is the property on a septic system? ☐ Yes ☐ No

Is there an existing swimming pool &/or spa on the property? ☐ Yes ☐ No If "yes," see the Pool & Spa note below

THE FOLLOWING "CHECKED" ITEMS MUST HAVE WRITTEN APPROVAL PRIOR TO PERMIT ISSUANCE. APPROVALS FROM THE PLANNING, ENGINEERING, FIRE, HEALTH DEPARTMENTS, AND THE AIR POLLUTION CONTROL DISTRICT MAY ALSO BE REQUIRED PRIOR TO FRAME AND/OR FINAL INSPECTION AND OCCUPANCY (INDICATED ON "BLUE" CARD). IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE DIVISIONAL DEPARTMENT(S) AT THE NUMBERS SHOWN.

CITY DEPARTMENTS

PLANNING / ZONING 858-720-2440

☐ O.K. for Plancheck Only. By _____ Date _____

☐ Fees Due. ☐ Park Fees ☐ Public Facilities Fees

☐ Fee Payment Required Prior to ☐ Permit Issuance ☐ Final Inspection

☐ Height Certificate Required prior to Requesting Frame Inspection.

☐ Approval Req'd prior to: ☐ Permit ☐ Frame Insp ☐ Final Insp

☐ Approval required prior to ☐ Frame ☐ Final Inspection

☐ O.K. to Issue Building Permits _____

ENGINEERING / SANITATION 858-720-2470

☐ O.K. for Plancheck Only. By _____ Date _____

☐ Permits Req'd ☐ Dedication Req'd ☐ Fees Req'd.

☐ Approval required prior to ☐ Frame ☐ Final Inspection

(Sewer, Plancheck, In Lieu)

☐ See attached form for Storm Water BMP'S

☐ O.K. to Issue Building Permits _____

ENVIRONMENTAL 858-720-2470

☐ O.K. for Plancheck Only By _____ Date _____

☐ Storm Water Mgmt. Plan Required

☐ See attached form for Storm Water comments

☐ Post Construction BMP Inspection Required:

☐ During Construction ☐ Prior to Final Inspection

☐ O.K. to Issue Building Permits _____

FIRE PREVENTION 858-720-2410

☐ O.K. for Plancheck Only By _____ Date _____

☐ Approval required prior to ☐ Frame ☐ Final Inspection

☐ O.K. to Issue _____

POOL & SPA SAFETY ENCLOSURE & SAFETY FEATURES

Effective 1/1/07, AB 2977 requires all existing pools and spas shall comply with current State mandated enclosure & safety features.

AGENCY APPROVALS

☐ **SCHOOL FEES**
 (Obtain signature on the attached forms)
 Solana Beach Elementary &
 San Dieguito Union H.S. District 760-753-6491

☐ **HEALTH DEPARTMENT**
☐ Health Regulated Business
☐ Hazardous Materials Management 619-338-2222
 1255 Imperial Avenue, San Diego 92138-5621
☐ Final Approval Required
☐ Septic Approval Required 760-471-0730
 151 Carmel St, San Marcos 92078
 Approved by _____

☐ **AIR POLLUTION CONTROL DIST.** (858) 586-2600
 (Obtain stamp and signature on APCD Questionnaire)
 10124 Old Grove Rd., San Diego CA 92131

☐ **WATER AND SEWER**
 (Obtain signatures on attached forms)
☐ Santa Fe Irrigation District 858-756-2424
☐ Solana Beach Sanitation District 858-720-2470

☐ **CALIFORNIA COASTAL COMMISSION** 619-767-2370
 Call for an appointment

☐ **ASSESSOR'S COPY OF PLANS**
 At permit issuance, provide a third copy of Title Sheet, Plot Plan & Floor Plan (per Senate Bill 493).

☐ **OWNER/BUILDER AFFIDAVIT AND/OR CONTRACTOR INFORMATION**

☐ **SDG&E WORK ORDER** (800) 411-SDGE
 For new / relocated gas & electric meters

Signature of Applicant _____

Date _____

BldgForms/SolanaBeach/TrackingSheet Eff 01/01/07

APPENDIX J: STORM WATER PLAN CHECK COMMENT FORM**CITY OF SOLANA BEACH
ENGINEERING DEPARTMENT****STORM WATER PLAN CHECK COMMENTS**

Project: _____ Address: _____

☐ An **Erosion Control Plan** shall be prepared and included with the permitted plans. Best management practices shall be developed and implemented to manage storm water and non-storm water discharges from the site at all times during excavation and grading activities. Erosion prevention shall be emphasized to keep sediment on site during excavation and grading activities. Sediment controls shall be used as a supplement to erosion control for keeping sediment on site.

In addition to showing erosion prevention methods, add the following note to plans:
“**EROSION CONTROL:** Best management practices shall be developed and implemented to manage storm water and non-storm water discharges from the site at all times during excavation and grading activities.”

☐ The Applicant shall demonstrate that the **project does not increase storm water runoff** or peak discharge from their property. For example, add a storm water retention and infiltration feature such as a depressed landscape area or below ground drywell using course rock or a pre-fabricated chamber. The amount of retention volume should be at least equal to 0.60 inches (0.05 feet) times the added impervious area. This should be designed to avoid runoff damage to downstream properties, such as not concentrating runoff where it was previously not concentrated.

☐ Storm Water and Non-Storm Water Runoff Control. The permittee shall put into effect and maintain all precautionary measures necessary to ensure that **pollutant discharges from the site will be reduced** to the maximum extent practicable and will not cause or contribute to an exceedance of water quality objectives. For example, maximize permeable areas to allow runoff seepage into the ground and drain impermeable surfaces (i.e. roofs, hardscape) to permeable areas (i.e. planted areas) and other approved pollutant treatment BMP's.

*Please contact the Engineering Department at 858-720-2470
It you have any questions*

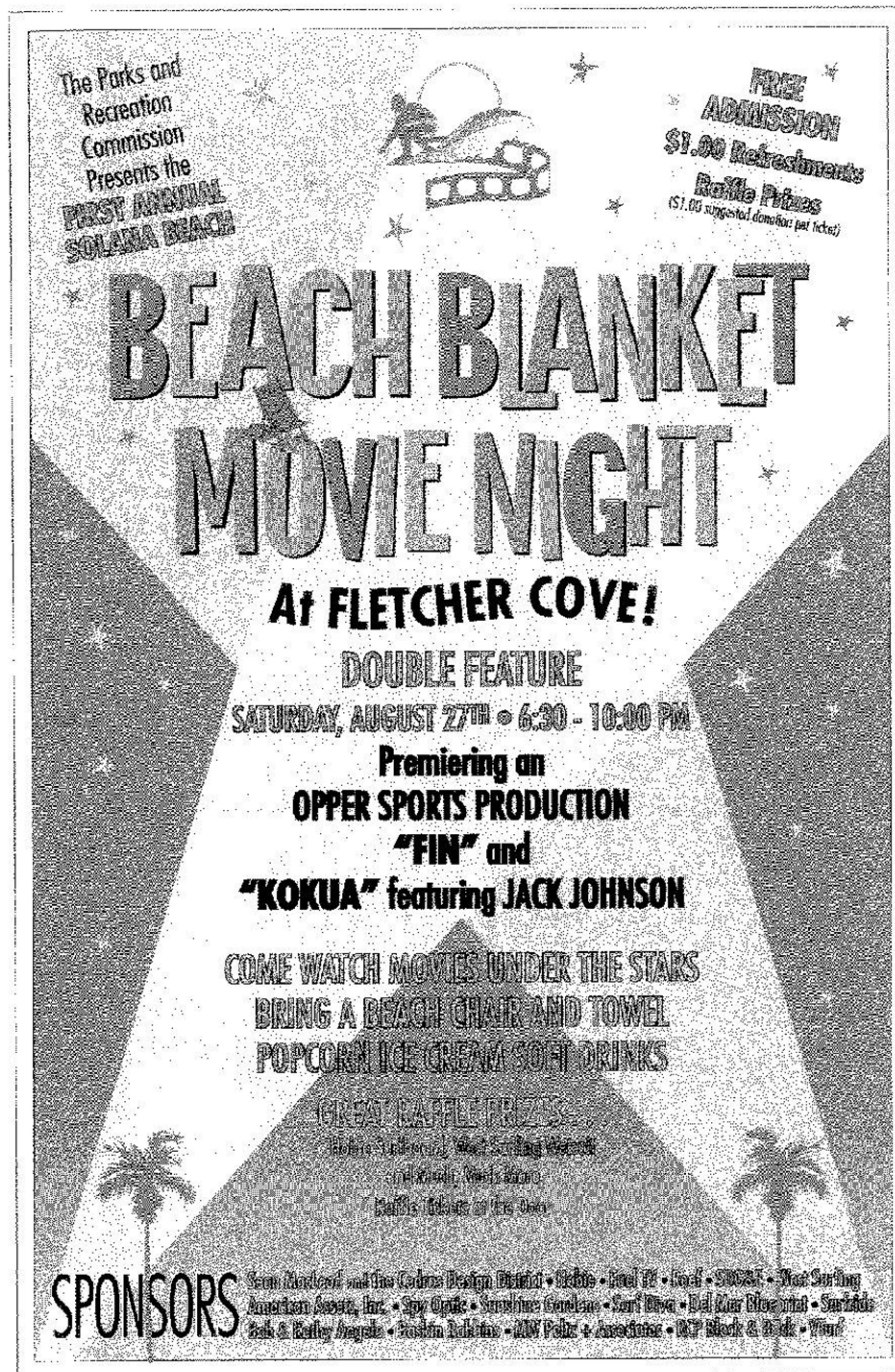
APPENDIX K: SUSMP PENDING PROJECT LIST

All new development and significant redevelopment projects that fall into one of the following “priority project” categories are subject to these SUSMP requirements. In the instance where a project feature, such as a parking lot, falls into a priority project category, the entire project footprint is subject to these SUSMP requirements. These categories include:

1. Residential development of 10 units or more
2. Commercial development greater than 100,000 square feet
3. Automotive repair shops
4. Restaurants
5. Hillside development greater than 5,000 square feet
6. Project discharging to receiving waters within Environmentally Sensitive Areas
7. Parking lots >5000 square feet or with >15 parking spaces and potentially exposed to urban runoff
8. Streets, roads, highways, and freeways which would create a new paved surface that is 5000 square feet or greater

<u>Project Name / Description</u>	<u>SUSMP</u>
NCTD Mixed Use and underground parking	2,4,7
Cohen Residence—269 Pacific Avenue	5
Hajjar Residence—311 Pacific Avenue	5
Pacific Sound Investors—959 Genevieve	2,7
Solana Beach Towne Center Bldg 5 (San Rodolfo and Stevens Avenue)	7,4,
Hall Residence—1128 Solana Drive	5
Strauss Residence—552 Canyon Drive	5
Billington Residence—762 North Granados	5
Granite Homes — 959 Highland Dr	5
Hoover Residence, 628 Canyon Pl	5
Dudek, 609 Canyon Pl	5
Totten SFR, 355 Pacific	5
Yee-Tuma New SFR, 662 Canyon Dr	5
Metolla 9 Unit Condos—Ida Avenue	7
Solana Beach Self Storage, 545 Stevens	2,7
Gateway Resort, 640 N. Highway 101 (former Magellen project redesigned)	2
Pacific Solana Holdings/Lifestyle Center on Marine View / Lomas Santa Fe / San Andres	2,7

APPENDIX L: BEACH BLANKET MOVIE NIGHT FLYER



Immediate Release

Contact: Sid Morris, Special Projects, City of Solana Beach

Phone (858) 720 - 2436

Media Alert: FREE Solana Beach Movie Night Offers Surfer's Delight

**Solana Beach Invites You to a Night of FREE Surf Films, Family Fun
and Environmental Education!**
City's best gather for one night of surf culture, prizes, and more...

Families, surf enthusiasts and ocean lovers are getting a one-night only movie magic treat at Solana Beach's First Annual Beach Blanket Movie Night!

Presented by the Solana Beach Parks and Recreation Commission, this free event will focus on our local surf culture and the importance--and fragility--of the environment that makes it all possible. This surf extravaganza will include raffle prizes (suggested donation \$1.00 per ticket) from surfboards to sunglasses, free giveaways plus plenty of cool refreshments to wash away the salty air. But that's not all...

The night's star attractions will be the screening of two unique surf films from local producer, Ira Oppen. First, *Kokua*, an Emmy-winning look at Jack Johnson's Kokua Festival, an annual celebration of music and mother nature on the north shore of Oahu.

The evening culminates with the premier screening of Oppen's most recent full-length surf film, *FIN*. This beautifully-shot documentary offers an up- close-and-personal look at the current state of the art of surfing during a time when surfers are redefining the sport. Style matters most to *FIN*'s subjects, and the film celebrates this time in surf culture when what you ride means nothing, but the way you ride it means everything.

All proceeds will benefit future Solana Beach Parks & Recreation Commission projects and/or community-building events, so come prepared to be generous...and entertained by fantastic surf footage!

Solana Beach's First Annual Beach Blanket Movie Night is being held at Fletcher Cove in Solana Beach, August 27th from 6:30-10:00pm. For more information about this event, please call: Sid Morris, Special Projects, City of Solana Beach at (858) 720 - 2436 or visit the city of Solana Beach website at: www.ci-solana-beach.ca.us. You can also view information about the producer and his films at www.surfhistory.com

APPENDIX M: SHORELINES NEWSLETTER WINTER 2005

New Carmel Valley Montessori School Operated by BGCSDTO Opens its Doors

The new Carmel Valley Montessori School (CVMS), operated by the Boys & Girls Clubs of San Dieguito, opened its doors to children between the



ages of 2-5 on July 1 with a full enrollment. The School is located inside the BGCSDTO's Polster Branch in Carmel Valley at 3800-A Mykonos Lane. Montessori methods and materials are specifically designed to enhance the child's natural love of learning. A balanced curriculum of academics as well as music, art, gymnastics, cultural studies and character development help promote a well-rounded individual who has the

highest potential to excel in every area of life. For more info, please visit www.bgcsdto.org/montessori.htm or call (858) 720-2181.

Club Announces New Fundraiser - DJ Ortho Chip-in For Kids Weekend

DJ Ortho, a global medical device company specializing in rehabilitation and regeneration products, has been named the title partner of the BGCSDTO's new fundraising event, the DJ Ortho Chip-in For Kids Weekend. The event will be held in conjunction with the Century Club's PGA Buick Invitational Golf Tournament at Torrey Pines on January 28 & 29, 2006. A Dinner & Casino night at the Del Mar Thoroughbred Club will follow on Saturday, January 28. The following day, 144 golfers will test their skills on the same course that the pros played the day before. For more info, please call (858) 720-2188 or visit www.bgcsdto.org/buick.htm.

Refreshments, coffee, tea

Annual Sale by the Wednesday Craft Group
Handcrafted Gifts, Bake Sale,
Elegant Trees, Christmas Decor, Raffle,
and much, much more!

100% of proceeds benefit
the Solana Beach Community

Holiday Tree Recycling/Collection Program

The City of Solana Beach, in partnership with Coast Waste Management, Inc., has a Christmas tree recycling and collection program that allows residents to drop off their trees free of charge starting December 26, 2005 through January 13, 2006.

Tree Recycling

There will be two locations for residents to drop off their trees. One is 140 South Sierra in Fletcher Cove and the second is 715 Valley Avenue at the La Brea Community Center. Recycled trees cannot be recycled and will not be accepted. All ornaments, tinsel, and tree stands must be removed from trees. If you are cutting off, the trees do not have to be cut into smaller sections.

Tree Collection

Trees must be cut into pieces and placed out on the curb for pick-up. All ornaments, tinsel, and tree stands must be removed. Flocked trees will be collected by the trash drivers.

Holiday Safety Tips

Christina Jackson, Crime Prevention Specialist • Encinitas Patrol Station: (760) 966-3510

The following Holiday Safety Tips are compiled by the San Diego Sheriff's Department's Crime Prevention Unit to contribute to a safe and secure holiday season. Remember that while you are shopping, the thieves are also shopping.

1. If you cannot shop during daylight hours, park in a well lit area at night. Store purchases in the trunk out of sight.
2. Stay alert to your surroundings. Take your time and sit down to relax.
3. Avoid overloading yourself with packages to have clear visibility and freedom of motion.
4. Be aware of strangers approaching you. "Car-jackers" try various methods of distraction to take money or belongings.
5. Pay for purchases with check or credit card to avoid carrying large amounts of cash.
6. Do not carry a purse or wallet, if possible. Keep cash, driver's license, checks/credit cards in your front pocket.
7. Avoid wearing expensive jewelry.
8. Be sure to have keys in hand prior to going to your car.

Please have a SAFE HOLIDAY!

Beach Conditions

If you want to know the current water quality conditions of the beaches in Solana Beach, just visit www.healthebay.org or www.earth911.org.

If you want to find out more about anything that pertains to the environmental program in the City of Solana Beach, please contact Danny King at (858) 720-2477 or by e-mail at dking@cosb.org. If you notice a violation or have an environmental concern, please contact Mr. King.



SOLANA BEACH *Shorelines*

5

APPENDIX N: PUBLIC PROJECT PRE-CON MEETING AGENDA

PRE CONSTRUCTION MEETING DISTILLERY PARKING LOT IMPROVEMENTS BID NO. 2006-12

September 7, 2006 – 11:00 am

Introductions

Contacts

1. Contractor MJC Construction
Javier Jimenez
(619) 472-5619 office
 2. City City of Solana Beach
635 S. Hwy 101
City of Solana Beach, CA 92075
(858) 720-2470 (Engineering)
(858) 755-1782 (Engineering fax)

Hector Ezquerro – City Inspector (858) 720-2470
Dan Goldberg – Project Manager (858) 720-2474
Danny Hernandez – Acting Public Works Supervisor (858) 793-8791
- Utilities Santa Fe Irrigation District – Dana Johnson (858) 756-2424

Project Status: Notice to Proceed – TBD
30 Working Days

Contract Amount: \$53,508.00

Project Goals:

- Safety
- Community
- Quality
- Schedule
- Budget

Contractor Requirements:

- Any questions about Contract Award or "Key Contract Items Summary Sheet"?
- Submit Construction Schedule
- Submit Traffic Handling Plan
- Submit Storm Water Pollution Prevention Plan (SWPPP)
- Submit Names/Phone Numbers of Foreman/Emergency People
- Submit Names of Additional Subcontractors

Storm Water & Erosion Control (Danny King – City Environmental Specialist)

- Best management practices shall be used & maintained
- Erosion control plan

Labor Compliance, Certified Payroll and Progress Payments

Public Notification: Contractor's responsibility (keep the public informed & keep the City informed) Section M (page 50 and 51)

- Notify occupants of affected properties of Construction operations in writing
- Provide and install temporary signage
- Provide, post, and distribute notification to occupants of affected properties of road repair operations by individual doorknob hangers
- Notify school districts, bus companies, trash companies, and emergency services via registered mail to include copy of Construction schedule
- Maintain notification signage
- Compensation as included in the various other Bid Schedule

Utility issues

- Maintain and supervise safety precautions
- Notify public agency and utility in writing of discovered utility facilities not identified in plans and specifications

Project Safety: Contractor's responsibility

- Traffic Control Plans

Inspection & Testing

- City will provide inspection

Change Orders

- Notification must be in writing
- Work is not approved until you have a change order signed by the City Council, City Manager or the City Engineer. Project Manager and Project Inspector cannot approve change orders.

Submittals

- Submittals should be given to the project manager.

Operating hours

- 7 a.m. to 3:30 p.m. Monday thru Friday. Do not operate, start equipment or congregate near residential areas before 7 a.m.
- If the contractor wants to work on Saturday, the contractor must reimburse the city for inspection services.

Work Schedule

Project Issues

9/7/06

F:\Common\City Projects\Distillery Lot\pre-con meeting agenda.2.doc

11:01 AM

APPENDIX O: PRIVATE PROJECT PRE-CONSTRUCTION CHECKLIST

City of Solana Beach
635 South Highway 101,
Solana Beach, CA 92075

PRE-CONSTRUCTION SITE/STORM-WATER INSPECTION CHECKLIST

Municipal Code Chapter 13.10 Storm Water Management
Engineering Inspection Division

Storm Inspection Type: None ☐ Pre- ☐

Inspected By: _____ Date: _____

Project Superintendent _____ Date: _____

Project Type: _____ Location: _____

Name of Contractor's 24-hour Site Contact: _____

Phone: _____

Watershed: _____ Carlsbad _____ San Dieguito
 303(d) Listed: - Sediment - Bacteria
 - Nutrients
 - Bacteria

Priority: High Medium Low

Based On: ☐ Size
☐ Soil Erosion Potential
☐ Site Slope
☐ Proximity to Environmentally Sensitive Areas
☐ Other _____

DEFINITIONS:

SWPPP: Storm-water Pollution Prevention Plan (>1 acre)

BMP: Best Management
 Practice

NPDES: National Pollutant Discharge Elimination System

Mark (x) box "Yes" or "No" or "N/A"; if comments, mark (x) box "Comment".

Yes	No	N/A	Comment	PRE-CONSTRUCTION
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. Is there a SWPPP filed and available on-site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. Are there Sensitive Environmental Resources to be shown on plans to be protected?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. Does the Contractor have an ongoing NPDES Training Program?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. Does the Contractor have a Qualified Person to Monitor and Report on BMPs? Provide a statement of qualifications.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. Does the Contractor have an inspection schedule and documents on-site and readily available?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. Did Contractor receive BMP Guide?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. Did Contractor receive/complete Weather Triggered Action Plan?

Comments: _____

I certify that I understand the issues regarding storm-water pollution and the responsibilities that I have to ensure the protection of Solana Beach waterways.

Signature

Date

APPENDIX P: CONSTRUCTION INSPECTION CHECKLIST

City of Solana Beach
635 South Highway 101,
Solana Beach, CA 92075

CONSTRUCTION SITE/STORM-WATER INSPECTION CHECKLIST

Municipal Code Chapter 13.10 Storm Water Management
Engineering Inspection Division

Inspection Description: Initial Visit ☐ Routine Inspection ☐ Follow-Up Inspection ☐

Storm Event Inspection Type: None ☐ Pre- ☐ Post ☐

Inspected By: _____ Date: _____

Project Superintendent: _____ Date: _____

Project Type: _____ Location: _____

Name of Contractor's 24-hour Site Contact: _____

Phone: _____

Did Superintendent Receive The BMP Guide Previously: Yes ☐ No ☐

If No, Did He/She Receive One Now: Yes ☐ No ☐

Is The Weather Triggered Action Plan On-Site and Available: Yes ☐ No ☐

Watershed: _____ Carlsbad _____ San Dieguito
 303(d) Listed: _____ -Sediment _____ -Bacteria
 _____ -Nutrients
 _____ -Bacteria

Priority: High Medium Low

Based On: Pre-Inspection Checklist

DEFINITIONS:

SWPPP: Storm-water Pollution Prevention Plan (>1 acre) **BMP:** Best Management Practice

NPDES: National Pollutant Discharge Elimination System

Mark (x) box "Yes" or "No" or "N/A"; if comments, mark (x) box "Comment".

Yes No N/A Comment

CONSTRUCTION

☐ ☐ ☐ ☐

1. Are all BMPs identified on the SWPPP/Plans installed in the proper location, in accordance to the specifications, and functioning properly?

☐ ☐ ☐ ☐

2. Does the SWPPP/Plans reflect current site conditions?

☐ ☐ ☐ ☐

3. If required, is Dry Season Preparation adequate? (e.g.: Able to implement quickly, materials on-site or close, contractor is monitoring weather, perimeter protection in place.)

☐ ☐ ☐ ☐

4. Does the Contractor have an inspection schedule and documents on-site and readily available?

☐ ☐ ☐ ☐

5. Are Monitoring Reports available, and in compliance?

☐ ☐ ☐ ☐

6. Are all downstream Operational Storm Drain Inlets protected?

☐ ☐ ☐ ☐

7. Are all Natural Drainage Courses in proximity to this project protected?

☐ ☐ ☐ ☐

8. Are all gravel bags, straw bales, and silt fences in place in accordance with the SWPPP/Plans, and are they functioning properly?

☐ ☐ ☐ ☐

9. Are Non-Storm-water BMPs being used? (e.g.: concrete washouts, irrigation runoff, etc.)

☐ ☐ ☐ ☐

10. If present, are all sediment traps/basins functioning properly?

☐ ☐ ☐ ☐

11. Is sediment, debris, or mud being cleaned from public roads and intersections with site access roads? (Tracking BMPs in place.)

☐ ☐ ☐ ☐

12. Are all discharge points free of any significant erosion or sediment transport?

☐ ☐ ☐ ☐

13. If present, are all significant erodible slopes protected from erosion through the implement of acceptable soil stabilization practices? (Rills and Gullies Developing.)

☐ ☐ ☐ ☐

14. Are all material and equipment handling, storage, and maintenance areas clean, and free of spills, leaks, or other deleterious materials?

☐ ☐ ☐ ☐

15. Are all on-site traffic routes, parking, and storage of equipment and supplies restricted to areas designated in the SWPPP/Plans for those uses?

☐ ☐ ☐ ☐

16. Are all locations of temporary soil stockpiles or construction materials in approved areas?

☐ ☐ ☐ ☐

17. Are all seeded or landscaped and irrigation areas properly maintained?

☐ ☐ ☐ ☐

18. Are all BMPs maintained in functional order?

Comments:

I certify that this inspection was conducted in accordance with Solana Beach Municipal Code Section 13.10 Storm Water Management by a City staff representative. Project site representative acknowledges any site violations detected and agrees to take the necessary corrective actions in the timetable given to them by City staff or risk penalties that may include fines.

City Staff Signature

Date

Project Site Representative Signature

Date

APPENDIX Q: WET WEATHER TRIGGERED ACTION PLAN-CONSTRUCTION



City of Solana Beach
635 South Highway 101,
Solana Beach, CA 92075

Weather Triggered Action Plan For Construction Sites
Municipal Code Chapter 13.10 Storm Water Management
Engineering Inspection Division

**This Action Plan should be completed before the rainy season and updated
prior to each rain event:**

Project Superintendent: _____

Project Superintendent Signature: _____

Address: _____

Date: _____

Inspector Name: _____

Inspector Signature: _____

Date: _____

Notes: _____

Materials and Wastes	
Existing Condition	Action Plan
Non-Storm Water Management	
Existing Condition	Action Plan
Discharge Locations	
Existing Condition	Action Plan
Erosion Controls	
Existing Condition	Action Plan
Sediment Controls	
Existing Condition	Action Plan
Equipment and Vehicles	
Existing Condition	Action Plan

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APPENDIX R: CONSTRUCTION BROCHURE

WATER QUALITY REGULATIONS FOR CONSTRUCTION SITES

Dear Contractor,

The North County Storm Water Program is a collective of jurisdictions in northern San Diego County working together to protect our watersheds. We believe that reducing pollution is critical to maintaining our communities' way of life.

It is our hope that this brochure will help you identify activities that are recognized to cause water pollution and implement appropriate Best Management Practices (BMPs) to minimize their impact. By providing you with these tools, we hope to make your job easier while keeping our waterways clean.

Each jurisdiction will be inspecting their construction sites to ensure the protection of water quality. We look forward to seeing the BMPs presented in this brochure implemented at your sites.

Together we have the ability to preserve and improve the quality of life in our communities.

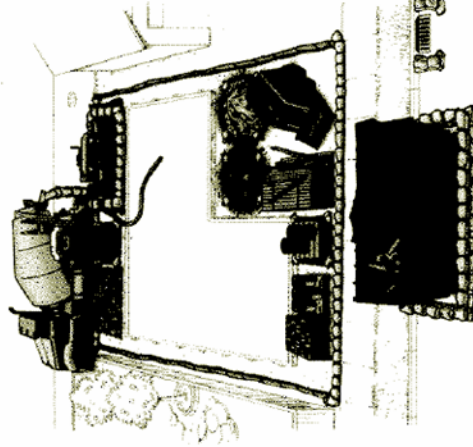
Sincerely,

The North County Storm Water Program

Contact Phone Numbers:



A POLLUTION PREVENTION GUIDE FOR THE CONSTRUCTION INDUSTRY



North County Storm Water Program

Carlsbad • Del Mar • Encinitas • Oceanside
• San Marcos • Solana Beach • Vista

Only Rain in the Storm Drain

CONSTRUCTION SITES

In 1972, the Environmental Protection Agency developed regulations to control water pollution. As a result, the National Pollutant Discharge Elimination System (NPDES) Permit was created. NPDES permits are issued to municipalities as well as construction sites.



In addition to complying with local regulations, which are governed by our municipal NPDES permit, you may be required to obtain a permit through the State of California under the State General Construction Permit (99-08-DWQ). All construction sites over one acre are required to obtain coverage under this permit.

Construction sites can contribute pollutants such as sediment, metals, and chemicals, to our local creeks, rivers, lakes, lagoons, and ocean. These pollutants make their way down our streets and into storm drains, eventually discharging to the nearest body of water.

All construction sites are required to implement Best Management Practices (BMP) to prevent storm water pollution. This brochure is intended to assist your construction site in understanding BMP requirements.

Each municipality has one or more persons dedicated to ensuring that all construction sites are in compliance with state and local storm water control regulations. Contact your local municipality for further information.

RIGHT-OF-WAY PERMITTING

We understand that there are times when space on construction sites is limited. If at any point, you (as a contractor or subcontractor) need to use the public right-of-way in order to work or store materials, you must apply for a special permit. This permit allows you to use the City's right-of-way areas, and describes what is required to prevent illegal contaminants from entering local storm drains. For more information or to obtain a permit application contact your local jurisdiction.



Each jurisdiction has established an enforcement program to ensure that all businesses operate in compliance with all appropriate storm water laws and other City requirements. Contractors, site supervisors and property owners can be held responsible for violations, which may lead to a civil penalty of up to \$10,000 per day and/or reimbursing the local jurisdiction for all expenses associated with clean up.



INSPECTION AND ENFORCEMENT PROGRAM

Each jurisdiction has established an enforcement program to ensure that all businesses operate in compliance with all appropriate storm water laws and other City requirements. Contractors, site supervisors and property owners can be held responsible for violations, which may lead to a civil penalty of up to \$10,000 per day and/or reimbursing the local jurisdiction for all expenses associated with clean up.

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BEST MANAGEMENT PRACTICES

Construction materials such as paint, dirt and trash often find their way into our storm drains, polluting the environment and jeopardizing our creeks, rivers, lakes, lagoons, and ocean.

The NCSWP is working with contractors to implement what are known as Best Management Practices (BMPs) on all construction sites. That is, methods used to keep pollution out of our storm drains and off public property, such as sidewalks, streets, parkways and alleys. Carrying out and maintaining these BMPs on the construction site is critical to protecting our ocean and bay.



The following is a list of BMPs and pollution prevention measures that shall be implemented at all construction sites:

1. **Conduct daily site cleanings.**
2. **Develop spill response and containment procedures.**
3. **Educate employees and subcontractors about BMPs.**
4. **Develop an erosion control plan for wind and rain.**
5. **Regularly maintain all BMPs at project site.**

BEST MANAGEMENT PRACTICES

SITE OVERVIEW

Protecting our water resources improves our quality of life and preserves the local environment for our children and future generations.

Unreated storm water and/or unintentional spills at work sites can flow into storm drains and pollute creeks, rivers, lakes, lagoons or the ocean. These discharges are prohibited by law.

The following drawing illustrates Best Management Practices (BMPs) that must be used at all construction sites in all Santa Clara County cities to protect storm drains and minimize pollution. Please check for local requirements.

MATERIALS STORAGE

All building materials and fuel stored on the site must be contained and covered. It is illegal for contractors to wash out paint brushes in the street or dump any residues in the storm drain. Paint brushes and spray guns must be contained and disposed of properly.

PERIMETER CONTROLS

Gravel bags, silt fences, and straw wattles are acceptable perimeter controls, and must be used to surround the entire site to control run-on and run-off. Avoid running over perimeter controls with vehicles or heavy equipment, as they can damage the materials. Keep extra absorbent materials and/or a wet/dry vacuum on site to quickly pick up unintended spills. Sites must also be checked and maintained daily.

BUILDING MATERIALS/STAGING AREAS

Construction materials must be stored on site at all times unless a right-of-way permit has been obtained. Building materials should always be covered when not in use to prevent run-off caused by wind or rain. To apply for a right-of-way permit, contact the appropriate department of your local jurisdiction.

DUMPSTERS/PORT-A-POTTY

Always cover dumpsters with a rollback tarp. Areas around dumpsters should be swept daily. Perimeter controls should also surround dumpsters and all Port-a-Potties. If dumpsters or Port-a-Potties are kept on the street, right-of-way permits are needed.

TRACKING CONTROLS

All entrances and exits on the site must have coarse gravel or steel shaker plates to limit offsite sediment tracking.

CONCRETE TRUCKS/PUMPERS

Pumpers must be surrounded by perimeter controls, such as gravel bags. Plastic sheets also must be placed beneath concrete pumpers at all times, and residual materials must be cleaned up as well. Washout areas must be used whenever cleaning trucks.

WASHOUT AREA

The disposal of "wet" construction materials should be handled in the washout area. This includes paint, stucco and concrete. Use a berm and/or plastic sheet to collect and contain liquids and prevent run-off in nearby areas. The washout area must be checked and maintained daily to ensure compliance. Washout liquids must be disposed of properly.

DIRT AND GRADING

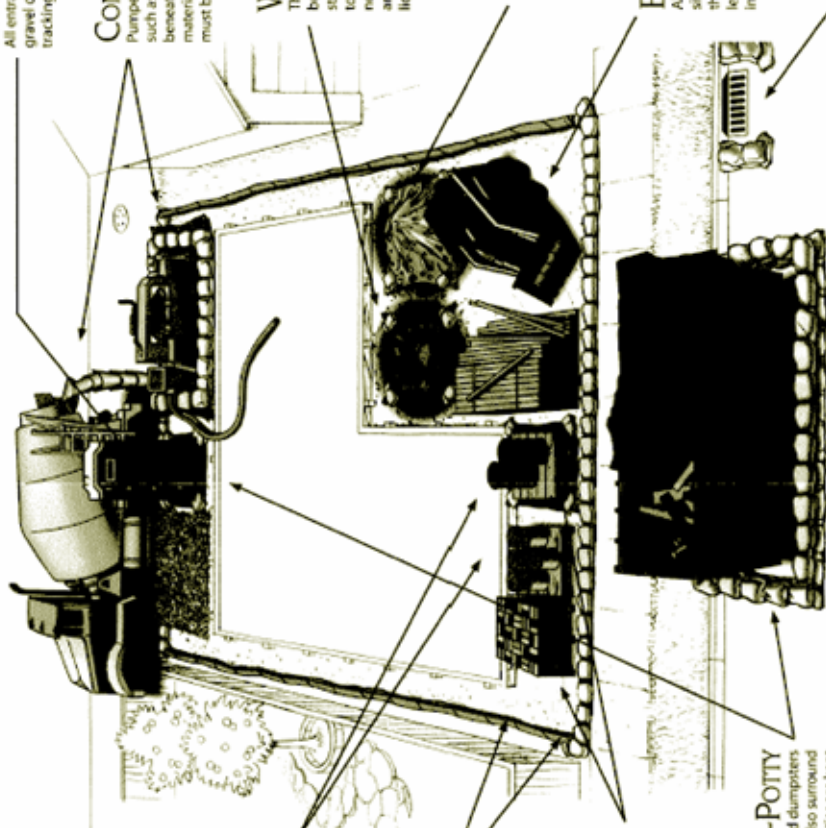
Mounds of dirt or gravel should be stored on site. These materials should also be covered each day with a tarp, coconut mat, or other form of protection. Visqueen and/or tarps must be available and on site to cover 125% of exposed areas during the rainy season (October - April).

EARTHMOVING EQUIPMENT

All earthmoving equipment should be stored on site. Maintenance should also be conducted on the site, and tracks and trails left by equipment leading to and from the site should be cleaned up immediately.

STORM DRAINS

Storm drains must be protected at all times with perimeter controls, such as gravel bags or straw wattles. Sediment accumulation should be removed frequently.



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APPENDIX S: SAMPLE CONTACT/COMPLAINT DATABASE

APPENDIX T: SPECIAL EVENTS PERMIT



NOTICE OF APPROVAL FOR SPECIAL EVENT CITY OF SOLANA BEACH

The Special Event you have applied for has been approved,
according to the following information:

Date Requested: June 12, 2004
Hours: 5:30 a.m. – 2:00 p.m.
Organization: San Dieguito Boys & Girls Clubs
Type of Event: Seaside Stride 5 Mile Walk
Location: See Attached Map
Contact Person: Ellen Flanagan (760) 471-5516

Approved By: _____
Barry Johnson, City Manager

SPECIFIC GUIDELINES:

1. No City services, at the request of the applicant, for the event will be provided by the City.
2. The event participants must utilize the sidewalks and not the roadway where available on the course. If there is no sidewalk, participants must utilize the very outer edge of the roadway.
3. Event organizers must obey all traffic signs, lights, and laws.
4. Event organizers and participants shall utilize public right-a-ways and property for the purpose of this event at their own risk.
5. Event organizers and participants shall obey all traffic laws, signs, and traffic control devices at all times.
6. Event organizers must comply with all applicable water run-off regulations and must use best management practices. There will be absolutely no liquid, solid, or any other by-product generated by the event allowed in the city storm drain system. The parking lot at the conclusion of the event must be cleaned of all debris and disposed of in an acceptable manner to the City's Public Works Department.
7. Roadway and sidewalks and any other public areas utilized by the event participants and audience shall be left in a clean and orderly condition at the conclusion of the special event.
8. Applicant shall be charged for the amount of time to clean-up the areas or facilities used by the event participants if the areas utilized by the attendees of the event are not left in a clean and orderly condition. Estimated cost for retaining one City employee to clean-up refuse, and trash disposal is \$ 43.20 per hour.
9. Any damage to public property as the result of this event will encumber full cost recovery from applicant by the City.

-
10. Event organizers shall at all times comply with any request or orders from the City's public works, lifeguard, law enforcement, or other public safety personnel. Failure to do so will result in the revocation of this permit and an immediate cease event order.

GENERAL GUIDELINES:

1. This permit and any other permits associated with this event will be available at the event.
2. If City services are required, applicant will be billed in advance for any and all City services provided above normally scheduled services. **All fees and charges shall be paid prior to final issuance of a permit for the event. Exception: Costs incurred by the City for clean up or other reasons due to the event, if any, shall be charged to the applicant billed as soon as the total cost is determined.**
3. All vehicles must comply with City parking regulations.
4. The organization and any of its subcontractors in advance of the event must file a business license application and fee, if they do not have a business license.
5. Vehicle loading and unloading cannot block pedestrian access. If required for short durations, signage directing the flow of pedestrian access, including wheelchair access must be established and posted.
6. The City reserves the right to shut down the event at any time, if necessary.
7. Applicant must comply with City noise regulations.
8. **It is the responsibility of the applicant to know and comply with the terms and conditions as stated within this special event permit and all applicable laws that pertain to the event, its organizers, and its participants whether they are stated on this permit or not.**
9. Contact Leah Escarcega or David Ott at (858) 720-2410 if there are any questions regarding the special event permit process.

C: City Manager's Office
Public Safety Director
Public Works Director
Sheriff's Department
Marine Safety Captain

APPENDIX U: SUSMP COUNTER HANDOUT



STORMWATER SUSMP (Standard Urban Storm Water Mitigation Plan) FOR CONSTRUCTION and BUILDING ACTIVITIES

The municipal storm water National Pollutant Discharge Elimination System (NPDES) permit (Order No. 2001-01, NPDES No. CAS0108758) issued by the San Diego Regional Water Quality Control Board on February 21, 2001, requires the development and implementation of a program addressing urban runoff pollution issues in development planning for public and private projects.

All new development and significant redevelopment projects that fall into one the following "priority project" categories are subject to these SUSMP requirements. In the instance where a project feature, such as a parking lot, falls into a priority project category, the entire project footprint is subject to these SUSMP requirements. These categories include:

- Residential development of 10 units or more
- Commercial development greater than 100,000 square feet
- Automotive repair shops
- Restaurants
- Hillside development greater than 5,000 square feet
- Projects discharging to receiving waters within Environmentally Sensitive Areas
- Parking lots >5,000 square feet or with >15 parking spaces and potentially exposed to urban runoff
- Streets, roads, highways, and freeways which would create a new paved surface that is 5,000 square feet or greater

Limited Exclusion: Trenching and resurfacing work associated with utility projects are not considered priority projects. Parking lots, buildings, and other structures associated with utility projects are subject to SUSMP requirements if one or more of the criteria for the above categories are met.

It is the responsibility of the property owner/contractor to determine if the project falls under the SUSMP requirements. Failure to implement the necessary SUSMP requirements on priority projects is subject to enforcement by the City of Solana Beach as well as the Regional Water Quality Control Board. If you have any questions regarding the SUSMP and its requirements, please call Danny King at (858) 720-2477.

APPENDIX Z1: 2005 DRY WEATHER MONITORING PROGRAM RESULTS

THE ATTACHED DOCUMENT IS A COPY OF THE
PROGRAM DESCRIPTION,
NARRATIVE SUMMARY
AND
RESULTS SECTIONS
OF THE

*City of Solana Beach
2005 Dry Weather Field Screening Program*

Prepared by the City of Solana Beach,

(Note: the complete report, including tables, sampling sheets, graphs and charts, is available at Solana Beach City Hall for review, upon request.

TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	2
2.0	INTRODUCTION	2
	2.1 Land Use Characteristics.....	7
3.0	METHODS.....	7
4.0	RESULTS	10
	4.1 Visual Observations	11
	4.2 Field Chemical Analyses	17
	4.3 Laboratory Chemical Analyses	19
5.0	DISCUSSION	23
6.0	CONCLUSIONS	25
7.0	REFERENCES CITED.....	25

1.0 EXECUTIVE SUMMARY

The Dry Weather Field Screening Program is an integral part of the NPDES (National Pollutant Discharge Elimination System) Storm Water Permit issued to the City of Solana Beach and other Copermittees by the San Diego Regional Water Quality Control Board.

The City of Solana Beach has implemented a comprehensive Storm Water Pollution Prevention Program. In 2005 twenty-nine sites were inspected, with no sites requiring follow up samples. Out of these twenty-nine sites, **only one storm water conveyance** line showed evidence of an illicit discharge or illegal connection. This line has a history of high bacteria counts, and the ongoing investigation attempting to locate the source of the bacteria is well documented and will continue until it is found and abated.

In September 2005, City of Solana Beach staff conducted the 2005 Dry Weather Screening Program under the regulations set forth in the NPDES Storm Water Permit Order No. 2001-01. Twenty-nine sites were inspected during the 2005 Dry Weather Screening Program. Each site was visually and chemically inspected for illegal discharges and/or illicit connections. Results were recorded on field data sheets and are included in the appendices of this Dry Weather Screening report.

2.0 INTRODUCTION

The Illicit Connection/Illegal Discharge Dry Weather Screening Program is one of the required tasks of the Storm Water NPDES Permit issued by the San Diego Regional Water Quality Control Board, under Order No. 2001-01. This is the fourth year that the San Diego Copermittees have conducted dry weather monitoring under this permit. The permit requires the City of Solana Beach, and all Copermittees, to develop and implement programs to prevent, reduce, and eliminate inappropriate discharges of pollutants from storm water conveyances into the waters of the United States.

The purpose of the Dry Weather Screening Program is to detect illicit connections and/or illegal discharges to the storm water conveyance system. In order to accomplish this goal, strategic sites were identified to test for chronic and/or improper discharges. Chemical parameters specified by the U.S. Environmental

Protection Agency (EPA) for field screening were used as indicators of potential pollution from industrial, commercial, or domestic sources. The EPA has presented the following most common non-storm water sources and has placed them into three contamination categories: pathogenic/toxic, nuisance, and clear. The pathogenic/toxic category can cause illness upon contact or consumption. The nuisance category can cause degradation of water quality and impair aquatic ecosystems. Clear water usually comes from natural sources such as springs and ground water infiltration. Table 1 displays the potential for these sources to enter the storm drainage system (EPA 1993).

Table 1: Potential Inappropriate Entries Into Storm Drainage Systems (EPA 1993)

Potential Source:	Storm Drain Entry		Flow Characteristics		Contamination Category		
	<u>Direct</u>	<u>Indirect</u>	<u>Contin-uous</u>	<u>Inter-mittent</u>	<u>Patho- genic / toxic</u>	<u>Nuis- ance</u>	<u>Clea- r</u>
Residential Areas:							
Sanitary wastewater	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	
Septic tank effluent		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	
Household chemicals	<input checked="" type="radio"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
Laundry wastewater	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	
Excess landscaping watering		<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
Leaking potable water		<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>
Commercial Areas:							
Gasoline filling station	<input type="checkbox"/>	<input checked="" type="radio"/>		<input type="checkbox"/>	<input type="checkbox"/>		
Vehicle maintenance/repair	<input type="checkbox"/>	<input checked="" type="radio"/>		<input type="checkbox"/>	<input type="checkbox"/>		
Laundry wastewater	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	
Construction site de-watering		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>		<input type="checkbox"/>	
Sanitary wastewater	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>		<input type="checkbox"/>		
Industrial Areas:							
Leaking tanks and pipes	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>		

Miscellaneous process waters	<input type="checkbox"/> <input checked="" type="radio"/>	<input type="checkbox"/> <input checked="" type="radio"/>	<input type="checkbox"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
------------------------------	---	---	--

Note: ☐ - most likely condition
☒ - may occur
Blank - not very likely

Discharges to the storm water conveyance system can originate from a variety of sources. The following provides a brief discussion of potential sources:

- Sanitary wastewater sources:
 - Sanitary wastewater (usually untreated) from improper sewer connections, exfiltration, or leakage
 - Effluent from improperly operating, or improperly designed, nearby septic tanks
- Automobile maintenance and operation sources:
 - Car wash wastewater
 - Radiator flushing wastewater
 - Engine degreasing wastes
 - Improper oil disposal
 - Leaky underground storage tanks
- Irrigation sources
- Lawn runoff from over-watering
- Direct spraying of impervious surfaces
- Relatively clean sources:
 - Infiltrating groundwater
 - Water routed from pre-existing springs or streams
 - Infiltrating potable water from leaking water mains
- Other Sources
 - Laundry wastewater
 - Non-contact cooling waters
 - Metal plating baths
 - Dewatering of construction sites
 - Washing of concrete trucks
 - Sump pump discharges
 - Improper disposal of household toxic substances
 - Spills from roadway and other accidents
 - Chemical, hazardous materials, garbage, sanitary sludge landfills and disposal sites

2.1 Land Use Characteristics

The City of Solana Beach consists of a total drainage area of 2,158 acres. The land use characteristics are estimated as follows (SANDAG 2000):

Agriculture	4 acres
Commercial and office	192 acres
Industrial	35 acres
Parks and Recreation	246 acres
Public Facilities and Utilities	110 acres
Residential	1436 acres
Transportation	98 acres
Undeveloped	37 acres
Water	1 acre

3.0 METHODS

This year marked the fourth year dry weather sampling was conducted under the municipal storm water discharge permit. Order No. 2001-01 Section F.5.b and Attachment E: Dry Weather Analytical and Field Screening Monitoring provide the requirements for field observations, field screening monitoring and analytical monitoring at each station. Further, the Copermittee Monitoring Workgroup has developed protocols for the jurisdictions to use to ensure consistency among the Copermittees.

First, a map of potential sampling locations was developed. In determining which storm drains and/or outfalls to monitor, the map was analyzed and sites were prioritized and selected based on the following: a review of the City's past Dry Weather Monitoring Programs; providing adequate coverage of the City's MS4 system, with a minimum of one monitoring location located within each hydrologic sub-basin; hydrologic conditions, total drainage area, history, and land use types at each potential monitoring location; points downstream of any suspected illegal or illicit activity; MS4 locations with potential to drain into surrounding sensitive water bodies; and ensuring sites were located at the farthest point downstream for each particular area of interest.

Figure 2 presents the hydrologic basins located within the City of Solana Beach and the 2005 monitoring locations. Two monitoring locations were selected within the coastal basin based on historical problem areas (Sites 24 and 25). Three monitoring locations were selected within the Fletcher Cove Basin based on their drainage to sensitive water bodies (Sites 20, 21, and 23). Twelve sites were selected within the San Elijo Basin. These sites were chosen based on their proximity to the environmentally sensitive San Elijo Lagoon, at the furthest possible point downstream before it enters the lagoon (Sites 1-9, 16, 22 and 28). Eight sites were chosen for the largest basin in the City, the Steven's Creek Basin (Sites 12-15, 16, 18 and 29). The majority of this basin drains into Stevens Creek. Monitoring locations were selected at specific points throughout the basin based on the combination of criteria discussed in the previous paragraph. These sites were chosen to capture data from all the different land uses in the basin. These include industrial, residential, commercial and parks. The last basin, the Via de la Valle East Basin, is located in the southeast portion of the City. Three monitoring locations were selected there to monitor what was leaving the City and entering the City of San Diego (Sites 18, 28, and 29).

An initial list of potential monitoring locations was developed. Twenty-nine sites met the criteria and were selected for the 2005 Dry Weather Monitoring program. All twenty-nine sites were identified as primary sites for monitoring based on the factors listed previously within this report.

The San Diego Stormwater Copermittees Jurisdictional Urban Runoff Management Program Model Appendix D: Dry Weather Analytical and Field Screening Guidance provides guidelines for dry weather monitoring procedures as well as action levels for specific dry weather screening analytes. In accordance with this document, City staff made an initial visit to each site to determine if there was flow or not. Field data sheets were used to record site descriptions and characteristics, flow estimations, visual observations, and field chemistry results (see Table 3 for a summary of field observations; individual data sheets are included in Appendix C).

If flowing or ponded water was observed during the initial visit, water quality tests were conducted. Sites that had elevated chemistry levels or abnormal visual observations were investigated immediately and the site was revisited within a period of not less than four hours and not more than twenty-four hours. Observations and chemical testing were repeated during the second visit. If the site was dry on the initial visit, a follow-up visit was not conducted.

Samples were collected by inserting a pre-cleaned HDPE bottle into the middle of the flowing or ponded water. Samples were tested on-site using CHEMetrics field test kits for the colorimetric analysis of ammonia, nitrate-N, orthophosphate-P, and detergents. In addition to the colorimetric analyses, the samples were also analyzed for pH, conductivity, and temperature using an Oakton Model 35630-62 pH/Conductivity/ Temperature Meter. Turbidity was measured using a Hach 2100P Turbidimeter. A description of the chemical testing equipment and the Quality Assurance/Quality Control Program are provided in Appendix B.

Table 2 presents the specific ranges and detection limits of the field test kits and meters.

Table 2: Range and Detection Limits for Field Test Kits and Meters

Parameter	Kit or Meter	Range	Detection Limits (mg/L)	Accuracy/ Increment
pH	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0.00 to 14.00 pH	NA	± 0.01 pH
Temperature (°C)	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0 to 100 °C	NA	± 0.5 °C
Conductivity (mS/cm @ 25 °C)	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0.0 to 19.99 mS/cm	NA	± 1% Full Scale ± 1 Digit
Turbidity	Hach Model 2100P Turbidimeter	0-1000 NTU	NA	± 2% of reading plus stray light from 0-1000 NTU
Ammonia (mg/L)	CHEMetrics K-1510	0-1.0 and 1.0-10.0 mg/L	0.1	NA
Nitrates (mg/L)	CHEMetrics K-6902	0 – 1.0 and 1.0-5.0 mg/L	0.05	NA
Detergents (mg/L)	CHEMetrics	0-3.0 mg/L	0.25	NA
Phosphate (mg/L)	CHEMetrics K-8510	0 –1.0 and 1.0-10.0 mg/L	0.1	NA

4.0 RESULTS

Table 3 presents a detailed summary of all chemical, biological and visual observations made during the 2005 Dry Weather Screening Program. The following provides a brief discussion about the purpose and results of visual observations and chemical and biological tests.

4.1 Visual Observations

Visual observations included water color, clarity, and flow rate, floating materials, biological observations, structural condition of the conveyance, and vegetative condition at the site. If any particular odors were associated with the site, those observations were also recorded.

Table 3

Table 3

Table 3

Table 3

- **Flow:** Flowing water was observed at Sites 12, 14, and 25. Ponded water was found at Sites 3 and 9. Sites 1, 2, 6, 11, 17, 21 and 26 were damp with insufficient water available to collect a sample. Sites 4, 5, 7, 8, 10, 13, 15, 16, 18, 19, 20, 22, 23, 24, 27, 28, and 29 were dry.
- **Odor:** Odor can be caused by chemicals from residential, commercial, and industrial discharges; and from natural sources including decaying organic matter and microbial activity.

The following sites had distinctive odors associated with them: Sites 9, 14, 25, and 26 had a distinct, musty odor. Site 12 had rotten eggs odor, which may have been due to decaying organic matter.

- **Water Color:** The apparent color of water results from dissolved substances and suspended matter. Soil runoff and decaying organic matter produce a variety of yellow, red, brown, and gray colors. Some algae and dinoflagellates produce reddish or deep yellow colors in water, while high levels of phytoplankton and other algae appear green.

The water color ranged from clear to yellowish at the majority of sites. The water at Sites 9, 12, 14 and 25 were a distinct yellow. All the other sites that contained water were clear.

- **Water Clarity:** Turbidity refers to the cloudiness of water. Water that is turbid generally has low clarity, and may appear cloudy or opaque, while less turbid water will appear clear. Suspended solids and microscopic plankton that scatter light passing through the water cause turbidity. High turbidity can be an indicator of soil runoff or blooms of microscopic organisms due to high nutrient inputs.
- The water clarity at all sites was clear. Quantitative measurements for turbidity at each site are included in Table 3.
- **Floatable materials:** The type of floating matter can help identify the source of contamination, since these substances are often direct products of the source of the pollution.

The majority of sites were free of floatable materials during the 2005 inspections, except for Site 3 which contained trash.

- **Biological:** At the majority of sites there was no biological activity noted with the following exceptions: Insects were detected at Sites 3, 7, 8, 9, 12 and 14.
- **Vegetative condition:** Excessive vegetation can be an indicator of elevated levels of nutrients in the runoff.

Sites 1, 3, 9, 10, 12, and 14 had normal vegetation growth.

- **Deposits:**

Site 12 had coarse particulate deposits.

4.2 Field Chemical Analyses

All sites with flowing or ponded water were tested for the following parameters: temperature, pH, conductivity, turbidity, ammonia, detergents, nitrates, and orthophosphates. Figures 3 and 4 summarize the results of the field inspections in a graphical form to provide an easy visual comparison of chemical test results across all sites. The following provides a brief discussion of each parameter. Table 3 provides a detailed list of analytical results. Section 5 provides a discussion of sites that appear impacted by illicit discharges.

- **Temperature:** Extreme temperatures can be an indication of commercial or industrial runoff.

Temperature readings ranged from 16.9 to 21.7 °C.

- **pH:** Measures of pH represent the intensity of the acidity or alkalinity of water, on a scale from 0 to 14.0, with 7.0 considered neutral. The pH of natural waters ranges from 6.0 to 9.0 (EPA 1993). Measurements outside of this range could be an indicator of commercial or industrial discharges.

All sites had pH levels within the recommended guidelines.

- **Conductivity:** Conductivity is the measure of the ability of water to carry an electrical current and high levels are an indicator of high total dissolved solids

(TDS). The conductivity of saltwater is generally above 43 uS/cm. The Copermittees have not developed an action level for conductivity, but Best Professional Judgment (BPJ) is used. Generally, values greater than 5,000 umhos/cm may indicate an IC/ID.

Conductivity levels ranged from 1447 to 1669 uS/cm. All levels were under the >5,000 uS/cm that is generally used for an IC/ID investigation so no follow up was required.

- **Turbidity:** Turbidity refers to the clarity of water. The cloudier the water, the higher the turbidity. Sources of turbidity include suspended organics/detritus, re-suspended bottom sediments, sediments originating from erosion, and phytoplankton. High turbidity can be an indicator of soil runoff or blooms of microscopic organisms due to high nutrient inputs.

Turbidity readings ranged from 5.76 to 1500 NTU. Best Professional Permit is used for IC/ID follow up for turbidity. No follow-up was necessary from these results.

- **Ammonia:** Ammonia is a common ingredient in commercial and household cleaning products. In addition, organic material contains nitrogen, which can convert into ammonia by means of biochemical degradation. Elevated levels of ammonia can be an indication of decaying organic matter or discharges containing cleaning agents. Ammonia levels range from 6 to 380 mg/L in raw sanitary wastewater, and from 0.1 to 3.0 mg/L in all other waters (EPA 1993). The Copermittee action level for ammonia is 1.0 mg/L.

Ammonia levels ranged from Not Detected to 1 mg/L. A level of 0.8 mg/L was measured at Sites 3 and 12. A level of 1 mg/L was measured at Sites 9 and 25. All other sites were below the Copermittee action level.

- **Detergents:** Detergents are found in household and commercial cleaning and laundering products. Elevated detergent levels are a good indicator of commercial and/or residential wash water entering the storm water conveyance. Detergent (surfactant) concentrations are usually below 0.1 mg/L in natural waters and range from 1.0 to 20.0 mg/L in raw sanitary wastewaters (EPA 1993). The Copermittee action level for MBAS (detergents) is 1.0 mg/L.

Because of their importance, detergents (surfactants) were tested in the field and in laboratory analyses. Detergent levels ranged from Not Detected to 1.5 mg/L at Sites 9 and 25 (Table 3). The most likely source of detergents at this site is residential car washing.

- **Nitrate-N:** Nitrates are commonly found in fertilizers, human or other animal wastes, in certain manufacturing processes, and in decomposing organic materials. Elevated levels of nitrate may be present in irrigation runoff, or may be indicative of an illicit connection to the storm drain system, by either commercial or residential sources.

Nitrate levels at all sites were below the Copermittee action level of 1.35 mg/L. The only sites to have slightly elevated levels of nitrates were Sites 3 and 25, which measured at 0.3 and 0.4 mg/L, respectively, well below the Copermittee action level.

- **Orthophosphate-P:** Orthophosphate-P occurs naturally from rocks, and with the decay and mineralization of dead plants and animals, but may also indicate the presence of human sewage, and commercial, agricultural or residential waste water.
- Orthophosphate levels measured at sites 3, 9, 12, 14 and 25 were above the Copermittee action level of 0.07 mg/L, ranging from 0.8 to 3.5 mg/L. Follow up investigations did not reveal where the source originated from. Catch basins were dry above sites 3, 9, 12 and 14 (most likely the result of excess irrigation water) and the catch basin above 25 was damp, not enough water to sample (It was already a monitoring site due to historical levels of bacteria in the area).

4.3 Laboratory Chemical Analyses

In accordance with the San Diego Stormwater Copermittees Jurisdictional Urban Runoff Management Program Appendix D: Dry Weather Analytical and Field Screening Guidance, a minimum of 25% of all sites with flowing or ponded water were tested for the following parameters: total hardness, surfactants (MBAS), oil and grease, diazinon and chlorpyrifos, dissolved cadmium, copper, lead, and zinc, and *Enterococcus*, total coliform, and fecal coliform bacteria. Sites 9, 12, 14, and 25 were selected for laboratory analysis based on analysis of previous Dry Weather monitoring results and geographic location. Concentrations of some indicator

parameters exceeded co-permittee action levels at Sites 9, 12, 14, and 25. The following provides a brief discussion of each parameter. Table 3 provides a detailed list of analytical results. Section 5 provides a discussion of sites that appear impacted by illicit discharges.

- **Total Hardness:** Total hardness refers to the calcium and magnesium concentrations in water. The hardness of water can vary considerably between locations. Natural sources of hardness are dissolved limestones. Guidelines for maximum dissolved metals concentrations in natural water are linked to the hardness or alkalinity of the water (i.e., the softer the water, the lower the permitted level of dissolved metals).

Hardness levels ranged from 337 to 521mg CaCO₃/L.

- **Surfactants (MBAS):** Surfactants are discharged from household and commercial cleaning and laundering operations. Anionic surfactants are commonly used in detergents and account for approximately two-thirds of the total surfactants used. Anionic surfactants are commonly measured as Methylene Blue Active Substances (MBAS). Surfactant concentrations are usually below 0.1 mg/L in natural waters and range from 1.0 to 20.0 mg/L in raw sanitary wastewaters (EPA 1993).

MBAS was not detected at Sites 9, 12 and 14. However, Site 25 had an MBAS recording of 0.8 mg/L, slightly higher than the action level of 0.5 mg/L. Again, the upstream investigation of this site did not reveal the source, as catch basins were damp, but not enough water to sample.

- **Oil and Grease:** The oil and grease analysis is applicable for the determination of hydrocarbons, vegetable oils, animal fats, waxes, soaps, grease, and related matter. Discharges may cause surface films and shoreline deposits leading to environmental degradation.

Oil and grease levels at Sites 9, 14 and 25 sampled for laboratory analysis were below the Copermittee action level of 5 mg/L, all registering Not Detected. However, Site 12 had an elevated level of 11 mg/L, but upstream investigations did not reveal the source. Catch basins were dry, it could have been influenced by tidal waters of the lagoon.

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- **Diazinon:** Diazinon is an organophosphate insecticide. It kills insects, as well as other organisms through its effect on the nervous system. It is moderately persistent and has moderate to high mobility in soil. Diazinon, in high enough concentrations, is highly toxic to birds, mammals, honeybees, and other beneficial insects. It is also very highly toxic to freshwater fish and invertebrates following acute exposure.

Diazinon was not detected at any of the sites selected for laboratory analysis.

- **Chlorpyrifos:** Chlorpyrifos is also an organophosphate insecticide and is the most widely used insecticide in the United States. It is used in agriculture on a variety of crops and for residential use as a termiticide, mosquitocide, lawn treatment, as well as other uses. It adsorbs readily to soil particles and therefore is not highly mobile in soil. Chlorpyrifos presents a high risk to birds, fish and mammals and an even a higher risk to aquatic invertebrates. The Copermitee action level for chlorpyrifos is 0.05 µg/L.

Chlorpyrifos was not detected at any of the sites selected for laboratory analysis.

- **Dissolved Cadmium:** Cadmium occurs in sulfide minerals that also contain zinc, lead, or copper. It is used in electroplating, batteries, paint pigments, and alloys with various other metals. It is usually associated with zinc at a ratio of about one part cadmium to 500 parts zinc in most rocks and soils. It is nonessential for plants and animals and is extremely toxic and accumulates in the kidneys and liver. The average abundance of cadmium in streams is 1 µg/L and in groundwater is from 1 to 10 µg/L. The U.S. EPA primary drinking water standard MCL is 10 µg/L (Standard Methods 1998).

Dissolved cadmium was not detected at any of the sites selected for laboratory analysis.

- **Dissolved Copper:** Copper occurs in its native state, but is also found in many minerals. It is widely used in electrical wiring, plumbing, roofing, various alloys, pigments, cooking utensils, brake pads, and the chemical industry. Copper is considered an essential trace element for plants and animals. The average abundance of copper in streams is 4 to 12 µg/L and in groundwater is less than 0.1 mg/L. The U.S. EPA drinking water 90th percentile action level is 1.3 mg/L (Standard Methods 1998).

Dissolved copper levels were not detected at Sites 12 and 14. Sites 9 and 25 had recordings but were much less than the action levels.

- **Dissolved Lead:** Lead is normally found in the mineral galena. It is commonly used in batteries, ammunition, solder, piping, pigments, insecticides, and some alloys. It is nonessential for plants and animals and is toxic by ingestion and is a cumulative poison. The average abundance of lead in streams is 3 µg/L and in groundwater is generally less than 0.1 mg/L. The U.S. EPA drinking water 90th percentile action level is 15 µg/L.

Dissolved lead was not detected at any of the sites selected for laboratory analysis.

- **Dissolved Zinc:** Zinc occurs in its native state and is used in many alloys such as brass and bronze. It is also used in batteries, fungicides and pigments. It is an essential growth element for plants and animals, but at elevated levels it is toxic to some species of aquatic life. The average abundance of zinc in streams is 20 µg/L and in groundwater is less than 0.1 mg/L. The U.S. EPA secondary drinking water standard MCL is 5 mg/L.

Zinc levels were not detected at Sites 12 and 14. Sites 9 and 25 had recordings but were below the actions levels, so no follow up required.

- **Bacteria:** Bacteria are commonly found in human and animal feces. They are generally not harmful themselves, but they do indicate the possible presence of pathogenic bacteria, viruses, and protozoans that also live in human and animal digestive systems. Total coliform, fecal coliform and *Enterococcus* bacteria are common test organisms for water quality sampling.
- **Total Coliforms:** Total coliforms are a group of bacteria that can occur in human feces, but can also be present in animal manure, soil and other places outside of the human body.

Total coliform levels were the following:

- 700,000 MPN/100mL at Site 9
- 70,000 MPN/100mL at Site 12
- 5,000 MPN/100mL at Site 14

-
- 2,200,000 MPN/100mL at Site 25

Site 25 was already the subject of an ongoing IC/ID investigation. Staff conducted an upstream investigation on Site 9 but found all catch basins dry. Staff concluded that the natural conditions of the outfall were the reason for the high levels of bacteria. The outfall drained into a large concrete basin on the outside border of the San Elijo Lagoon. The vegetation of the lagoon collected the water in a large natural pond which was very conducive to bacterial growth.

- **Fecal Coliforms:** Fecal coliforms are a subset of total coliforms and are more fecal-specific in origin.

Fecal coliform levels were the following:

- 230,000 MPN/100mL at Site 9
- 3,000 MPN/100mL at Site 12
- 17,000 MPN/100mL at Site 14
- 230,000 MPN/100mL at Site 25

- **Enterococci:** Enterococci are a subgroup within the fecal *Streptococcus* group and are better suited for survivability in salt water. They are generally found in the digestive systems of humans and other warm-blooded mammals.

Enterococci levels were the following:

- 13,359 MPN/100mL at Site 9
- 1,553 MPN/100mL at Site 12
- 156 MPN/100mL at Site 14
- 27,551 MPN/100mL at Site 25

A detailed discussion of the bacteriological sampling results is included in the following section.

5.0 DISCUSSION

During the 2005 Dry Weather Screening Program three sites displayed elevated levels of some analytes, compared to other sites. Twenty-four of the twenty-nine sites inspected this year were either dry or damp. Ponded or flowing water at Sites 3, 9, 12, 14, and 25 was of good quality. Site 25 is the subject of an ongoing IC/ID

bacteria investigation. Sites 9 and 25 had an elevated level of ammonia (but still under action level) and Sites 9, 12 and 25 had significant levels of bacteria (over action levels). Sites 12 and 25 had a significant elevated level of Orthophosphate-P, and Site 12 had an elevated oil and grease level. The ammonia levels, which measured at or slightly above Copermittee action levels, were most likely due to decaying organic matter within the storm drain system. The following provides a discussion of the sites that appear affected by illicit discharges.

- **Site 9:** Samples were taken from the outfall located at Santa Luisa. Bacteria samples were collected and the testing resulted in total coliform, fecal coliform, and *Enterococcus* levels of 700,000, 230,000 and 13,359 MPN/100 mL respectively. All results are higher than Copermittee action levels, but upstream investigations were inconclusive. All catch basins visited upstream were dry or damp. This leads us to believe that the elevated bacteria levels are a result of the location of the outfall, since it empties directly onto the dry area of the San Elijo Lagoon (extremely isolated and has no effect on receiving waters). The discharge is trapped by the excessive vegetation and becomes very stagnant. It appeared to be a perfect breeding ground for bacteria.
- **Site 12:** This site is located in the middle of Steven's Creek, right where the channel goes from earthen bottom to concrete lined. Samples collected during testing resulted in total coliform levels of 70,000, MPN/100 mL, over the Copermittee action level of 50,000 MPN/100ml.. The sample also had exceedences in Orthophospate-P (3.5 mg/L) and oil and grease (11 mg/L). The upstream investigation did not reveal the sources of these exceedences, however, there is a gas station upstream that may be the cause of the oil and grease. This site will be monitored more closely in next reporting period.

Site 25: Samples were taken from the outfall located at the Seascape Sur beach access. The Orthophospate-P reading of 2.5 mg/L exceeded the Copermittee action level. Bacteria samples were collected during testing resulted in total coliform, fecal coliform, and *Enterococcus* levels of 2,200,000, 230,000 and 27,551 MPN/100 mL respectively, all exceeding action levels. This outfall is the subject of an ongoing IC/ID source investigation for bacteria. This outfall has had a historically high level of bacteria for the past five years, and the City is actively pursuing the source of the bacteria.

6.0 CONCLUSIONS

The 2005 Dry Weather Monitoring Program found only one storm water conveyance line with an indication of illegal discharges to the City of Solana Beach's storm water system. The majority of the other sites visited were dry or damp. With the exception of the Seascape Sur area, sites that had water present did not have parameter concentrations high enough to cause great concern. All necessary follow up activities did not reveal a dominant source, as the catch basins were either damp or dry.

It is recommended that the City continue with its efforts to educate the Beachwalk business district about the City's pollution prevention programs and continue its efforts to eliminate the discharge at Site 25. Commercial educational programs should continue and include both the proprietors and their employees. Residential programs should include building owners and residents. An informed public will provide support for new and already existing prevention programs.

Additionally, the City should begin exploring the options for capital improvements in the Seascape area as the source of the recurring bacterial problems has proven elusive. The City will continue to clean out the pipe once per year, and will look into possibly correcting the structural problems within the pipe, which may be leading to bacterial re-growth. The outfall has not affected the quality of the receiving waters, yet, but a proactive approach by the City to abate the bacterial problem is recommended.

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EXHIBIT E

CITY OF VISTA
2005-06 Annual JURMP Report

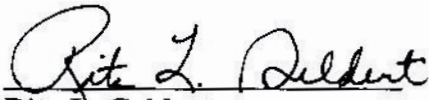
Submitted January 2007

Prepared by:
City of Vista Engineering Department



Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Rita L. Geldert
City Manager
City of Vista



Lawrence D. Pierce
Director of Engineering/Public Works
City of Vista

EXECUTIVE SUMMARY

INTRODUCTION

This Annual Report provides a summary of the storm water protection and urban runoff management activities conducted in accordance with the City's Jurisdictional Urban Runoff Management Plan (JURMP). The overall program is detailed in the City of Vista's JURMP, dated February 2002. The JURMP was prepared in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water Permit (Permit), Order 2001-01, issued by the San Diego Regional Water Quality Control Board (RWQCB) on February 21, 2001. This Annual Report describes the City's activities conducted during the fifth year of permit implementation, from July 2005 through June 2006 Fiscal Year (FY 05-06).

The City also continued implementation of watershed programs in the two watersheds in which the City is located (Carlsbad and San Luis Rey Watersheds). Details of these programs are included in the respective Watershed Annual Reports.

PROGRAM OVERVIEW

The City of Vista's storm water program is implemented on a jurisdictional, watershed and regional level. On the jurisdictional level, the City was successful in implementing its JURMP through expanded education, effective BMP implementation, and enforcement to obtain compliance when necessary.

Expanded education was a focus for the City during FY 05-06. This included education of all target audiences, with an increased number of presentations for school children and adults in the automotive industry. New materials and promotional items were also developed and distributed to the target audiences.

Expanded programs and additional improvements were also implemented for other JURMP components. This included the purchase of new storm drain maintenance equipment, approval of more natural treatment control BMPs for new development, increased and expanded industrial and commercial inspections, and increased creek cleanup events.

On a watershed level, the City has been an active participant in development and implementation of the Watershed Urban Runoff Management Programs (WURMPs) for the Carlsbad and San Luis Rey Watersheds. As part of these programs, the City has been the lead for the North County Storm Water Program educational group which consists of Copermittees in the Carlsbad and San Luis Rey Watersheds who collaborate on education and outreach activities.

Regionally, the City collaborated with the San Diego County Copermittees. This included participating in Copermittee management meetings and several

Copermittee workgroups (Channel Maintenance, Education and Outreach, Monitoring, etc.).

It is the City's goal to continually improve the storm water program through an iterative process of assessment and evaluation followed by program modification. The program is currently moving in the direction of assessing the effectiveness using water quality data as a measure of success. It is likely that this type of assessment will take several years to complete; however, steps are currently being taken to move in that direction.

Following is a summary of accomplishments during the reporting period and plans for the coming year by JURMP component.

Municipal

The municipal facilities continued to improve and are implementing their SWPPPs as well as assuming responsibility for conducting self-inspections of their facilities. In-house trainings continued to remind City personnel on proper implementation of effective BMPs and other storm water issues. The high priority municipal facilities were inspected during FY 05-06, and BMPs were implemented at the municipal sites as detailed in Section 2. The City successfully acquired a dedicated storm drain vector truck for maintenance, and hired a consultant to update the Storm Drain and Sewer Master Plans.

During FY 05-06, approximately 8,000 curb miles of streets were swept, removing an estimated 250 tons of materials. Approximately 142 cubic yards of sediment and debris were removed from the municipal separate storm sewer system, and approximately 1,393 cubic yards of sediment were removed from flood control channels.

FY 06-07 Plans

1. During FY 06-07, the City will have a GIS populated with the City's public storm drain and sanitary sewer systems. This will aid various departments with JURMP implementation activities and in the future with effectiveness assessments.
2. The City will continue working with the regional channel maintenance workgroup and consultants to pursue permits for channel maintenance activities.
3. The City will hire an outside contractor to inspect the six main high priority municipal facilities. This provides a third-party Stormwater professional perspective for the review and evaluation of site conditions and BMP implementation.

4. A new street sweeping contractor will be hired to improve the street sweeping program.

Industrial

During the reporting period, all potential high priority industries (55) and 20 medium priority industries were inspected. Detailed information on industrial permit issues were provided during inspections and in the report. The inspections included assessment of facility operator knowledge of storm water issues and facility BMP implementation. Additionally, a new assessment tool (Pollutant Discharge Potential Assessment - PDPA) was implemented as a pilot project. Because many of the City's industrial facilities are found in new industrial parks, where essentially all activity is indoors, the number of BMP deficiencies observed at industrial sites was relatively small – only one violation was noted during industrial inspections.

FY 06-07 Plans

The City will continue to conduct annual inspections of high priority industrial facilities and inspect other industrial facilities as resources allow. Because the permit requires these annual high priority inspections, the City can not choose to not inspect these in favor of the less inspected, low priority facilities. If this language is changed in the new Permit, the City can better apply resources to more frequently inspect the lower priority industries. Following are additional program activities that the City will implement in 2006-07.

1. Database modifications to improve tracking and reporting for routine and follow-up inspections.
2. Expanded use of the PDPA form for inspected facilities.
3. Increased enforcement efforts to obtain compliance from facilities that have failed to conduct required monitoring.

Commercial

The major accomplishment for this component during the reporting year was the inspection of all inventoried restaurants, automotive repair facilities, nurseries and greenhouses (over 385 facilities). The inspections focused on the City's and the watershed's identified constituents of concern (COC): bacteria, nutrients, sediment and trash.

Other program accomplishments included the continued use of the knowledge and BMP implementation assessments conducted during inspections, as well as the use of the new PDPA form that was conducted as a pilot project.

FY 06-07 Plans

There continue to be compliance issues with commercial facilities, particularly with restaurants and how they handle and store waste oil and grease.

In general, the City would like to see the commercial program grow increasingly effective each year in bringing facilities into compliance. Program staff have identified several mechanisms that will help us achieve increased compliance:

1. Continue to focus inspections on restaurants and other commercial facilities with repeated non-compliance issues.
2. Expand the use of the new PDPA form to gather information on inspected commercial facilities.
3. Work with Planning and Development Services to ensure that proper waste disposal storage facilities (overhead cover and containment for trash and other materials) are required and installed at new facilities.

Residential

The City continued to actively conduct residential outreach as well as complaint investigations and enforcement to obtain compliance with BMP requirements for high priority residential areas and activities. Residential use of the Household Hazardous Waste facility is increasing, with a 20% increase by Vista residents during FY 05-06. A new pet waste education program was launched and will be fully implemented during FY 06-07.

2006-07 Plans

The City has identified nitrates and trash as COCs (dry weather conditions). The watershed has identified bacteria and sediment as high priority COCs (wet weather monitoring). Some residential areas and activities can contribute to these COCs. As shown in the City's Dry Weather Monitoring Program, over-irrigation runoff can carry contaminants to the storm drain system. The City will continue to implement education and investigation programs to reduce these COCs. This includes implementation of the pet waste program and improved collaboration with the Vista Irrigation District to address water conservation and over-irrigation issues.

Land Use Planning and Development

During the reporting period, the City continued to implement its SUSMP requirements for all priority projects. Since the RWQCB SUSMP Program audits, the City has made a concerted effort towards obtaining conformance with the SUSMP requirements for site design and source control implementation. This has been accomplished and the resulting BMPs have been progressing toward Low Impact Development types. The more natural types of BMPs have also crossed from site design into treatment control BMPs. All of the priority projects approved during the reporting period had natural treatment control BMPs with the exception of one that utilized media filtration as the method of treatment. The natural treatment control BMPs included properly designed treatment control detention basins and vegetated bioswales.

FY 06-07 Plans

The City plans to collaborate with other Copermittees to work towards regional standards for implementation of SUSMP requirements, including LID and HMP requirements. Currently, there are no standards for quantities of site design and source control for projects. By developing minimum standards, the Copermittees could eliminate the confusion over how much site design is required. Until the interim and final HMP requirements are determined, the quantity of site design BMPs for a particular project is still jurisdictionally specific and developers across the region are subject to mixed requirements. The City also plans to continue to require more natural treatment control BMPs and site design features for the projects.

Construction

The construction component accomplishments during the reporting period were the site inspections conducted at all priority sites. As City inspectors have become more educated through training sessions, and their own experiences, the inspections and contractor compliance has improved. Storm water BMP requirements were also discussed at each pre-con meeting.

Another program strength comes from the use of a database that generates project specific inspection forms based on site priorities. The database user can generate the forms at the required inspection frequency.

In addition, program staff spent a considerable amount of time with the Building Department inspectors training them on proper storm water BMPs and key areas to inspect.

FY 06-07 Plans

Staff will continue working with the Building Department to ensure post-construction BMPs are being constructed as required. In addition, City staff will continue meeting with developers and contractors at all pre-cons to discuss site BMPs.

Illicit Discharge Detection and Elimination

The City continued to actively seek and eliminate illicit connections and discharges through the dry weather program and complaint investigations. Thirty storm drain sites and seven creek sites were monitored as part of the Dry Weather Monitoring Program. While there were various exceedances of dry weather actions levels, the 2006 Dry Weather Monitoring Program found relatively few indications of illegal discharges to the City of Vista's storm water conveyance system.

The City responded to private sewer lateral spills in order to help contain and prevent discharges to the storm drain and receiving waters. Although it is the private property owner's responsibility to maintain the lateral and cleanup these spills, the City will contact a plumber or turn off water if the private property

owner is unavailable or unwilling to address the issue. The City was made aware of and responded to 10 private lateral overflows. All sewage from these overflows was recovered and did not discharge into the storm drain system or receiving waters.

The City conducted an active stormwater complaint investigation and enforcement program, responding to 210 stormwater complaints last year. The City's ultimate goal is to achieve compliance, and the Code Enforcement Officer worked to achieve that end through education or enforcement, as appropriate.

FY 06-07 Plans

The City will continue to actively implement these program areas and refine them as needed. The completed GIS maps will assist the City in evaluating the location of the current dry weather monitoring sites to determine if they are properly located in order to best identify illegal discharges. The City will also reevaluate the sewer maintenance program and begin planning a Fats, Oils and Grease program in order to comply with the new Waste Discharge Requirements for Sewer Collection Systems.

Education

The strength of the education program during this reporting period was the active distribution of storm water materials to various target audiences, including residents, municipal staff, school children, businesses, developers and construction site operators. The City conducted and participated in external and internal workshops and presentations, including elementary school classroom presentations, an automotive environmental compliance workshop, a restaurant workshop, SUSMP workshops for developers and numerous City staff training sessions. Over 1500 school children received educational presentations, resulting in increased awareness of general stormwater knowledge.

FY 06-07 Plans

A significant amount of written educational material has now been developed and the focus of the education component will move towards further avenues of dissemination of those materials. Additionally, the City of Vista will continue to collaborate with watershed and regional education groups to focus on education campaigns that are effective at overcoming barriers to behavior change. Following are some identified program focus areas for next year.

1. The City will continue to distribute the materials that have been developed, and will work with the watershed and regional education groups to develop effective materials and campaigns.
2. The City will continue to conduct classroom presentations to school children, and to educate target audiences on specific BMPs and issues as they are identified.

Public Participation

Vista expanded creek cleanup efforts throughout the City, which improves our waterways and encourages the public to become stewards of their community. The City also provided many opportunities for public participation, from formal public meetings to festivals. Vista continued to advertise the hotlines on educational and promotional materials. Vista residents who have an interest in improving their neighborhoods can take part in various City programs and commissions.

FY 06-07 Plans

The City will continue to seek public involvement with the implementation of the JURMP. The City will also pursue grants which focus on water quality improvements and opportunities for public participation in the development of these plans and programs.

Program Assessment

The City of Vista began using the regionally developed Long-Term Effectiveness Assessment model for its program effectiveness assessment. This framework provides guidance that the City will use to move from a permit-compliance-driven programmatic implementation strategy to one which focuses on the ultimate goal of reducing pollutants and improving water quality. Through the planning, implementation and assessment processes, the City works to identify pollutant sources, implement effective BMPs, and refine programs in order to eliminate or reduce the identified pollutants as efficiently as possible.

The City tracks program compliance activities as well as higher levels of program assessment. Knowledge changes were assessed with pre- and post- tests for school children. Knowledge and BMP implementation were assessed by inspectors for commercial and industrial facilities. Load reductions are estimated for maintenance activities, including street sweeping and storm drain maintenance. Thirty storm drain system locations were monitored as part of the Dry Weather Monitoring Program and the City elected to monitor seven creek sites to obtain additional receiving water information for future assessments.

FY 06-07 Plans

The City will continue to pursue regional standards and methods for calculating pollutant load reductions for other program activities, and to pursue assessment tools that will allow higher levels of program assessment.

Fiscal Assessment

The City continues to fund its storm water management program through the City's Sewer Enterprise Fund. No significant changes were made to the budgets for the storm water program. The City will continue to look for ways to cost efficiently implement the JURMP and to ensure a stable funding source.

Conclusions and Recommendations

The City has been successfully implementing the JURMP and identifying areas for program refinement. Through the iterative process of implementation and evaluation, these activities and procedures are modified in order to more efficiently and effectively implement BMPs to the Maximum Extent Practicable. As the program continues to be implemented, more data will be collected in order to help evaluate the impacts of the program on water quality.

The City's JURMP is a citywide program, implemented by multiple departments and numerous City staff. Successful implementation and continued compliance depends on good communication and direction, education, and continued collaboration. Increased collaboration helps the City implement the JURMP as efficiently and effectively as possible.

Over this next year, the City will work to implement the FY 06-07 action plans identified for each JURMP component in order to continue to build on program success. The City will also continue to actively participate and collaborate with Copermitees and various stakeholders to implement the Carlsbad and San Luis Rey Watershed Urban Runoff Management Plans.

TABLE OF CONTENTS

<u>SECTION/TITLE</u>	<u>PAGE NO.</u>
1.0 INTRODUCTION	1-1
2.0 MUNICIPAL FACILITIES AND ACTIVITIES COMPONENT	2-1
3.0 INDUSTRIAL FACILITIES COMPONENT	3-1
4.0 COMMERCIAL FACILITIES COMPONENT	4-1
5.0 RESIDENTIAL COMPONENT	5-1
6.0 LAND USE PLANNING FOR NEW DEVELOPMENT & REDEVELOPMENT COMPONENT	6-1
7.0 CONSTRUCTION COMPONENT	7-1
8.0 ILLICIT DISCHARGE DETECTION & ELIMINATION COMPONENT.....	8-1
9.0 EDUCATION COMPONENT	9-1
10.0 PUBLIC PARTICIPATION	10-1
11.0 ASSESSMENT OF JURMP EFFECTIVENESS.....	11-1
12.0 FISCAL ANALYSIS	12-1
13.0 SPECIAL INVESTIGATIONS.....	13-1
14.0 CONCLUSIONS AND RECOMMENDATIONS	14-1

APPENDICES

APPENDIX A

- A-1 UPDATED MUNICIPAL INVENTORY

APPENDIX B

- B-1 UPDATED INDUSTRIAL BUSINESSES INVENTORY
- B-2 INSPECTED HIGH PRIORITY INDUSTRIES
- B-3 PRIORITY AND INVENTORY CHANGES
- B-4 POLLUTANT DISCHARGE POTENTIAL ASSESSMENT (PDPA) FORM

B-5 INDUSTRIAL PERMIT COMPLIANCE SUMMARY

APPENDIX C

C-1 UPDATED COMMERCIAL BUSINESSES INVENTORY

APPENDIX D

D-1 CONSTRUCTION INVENTORY (DECEMBER 2006)

D-2 STORMWATER PRE-CON INFORMATIONAL HANDOUT

D-3 CONSTRUCTION INSPECTON FORM

D-4 RAINY SEASON NOTIFICATION LETTER

APPENDIX E

E-1 FY 05-06 ENFORCEMENT CASE DATABASE SUMMARY

E-2 2006 DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING

APPENDIX F

F-1 NEWSPAPER ARTICLE ON CLEANUP EVENT

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to report on the City of Vista's (City) implementation of the urban runoff management program in accordance with the requirements of the San Diego Regional Water Quality Control Board (RWQCB) Municipal Storm Water Permit Order 2001-01. This annual report describes the activities conducted by the City during the July 1, 2005 through June 30, 2006 (FY 05-06) reporting period. The City's program is described in its Jurisdictional Urban Runoff Management Plan (JURMP), dated February 2002.

In accordance with Order 2001-01 Section I, descriptions of the various program activities conducted by the City are included in this annual report. Specifically, Section I requires the following be addressed:

- Existing development (Municipal, Industrial, Commercial, and Residential);
- Land use planning for new and redevelopment;
- Construction;
- Illicit discharge detection and elimination;
- Education;
- Public participation;
- Assessment of the JURMP effectiveness;
- Fiscal analysis of FY 05-06 and the upcoming year's budget (FY 06-07);
- JURMP revisions;
- Special monitoring investigations;
- Water quality improvements or degradation; and
- Identification of ineffective management measures.

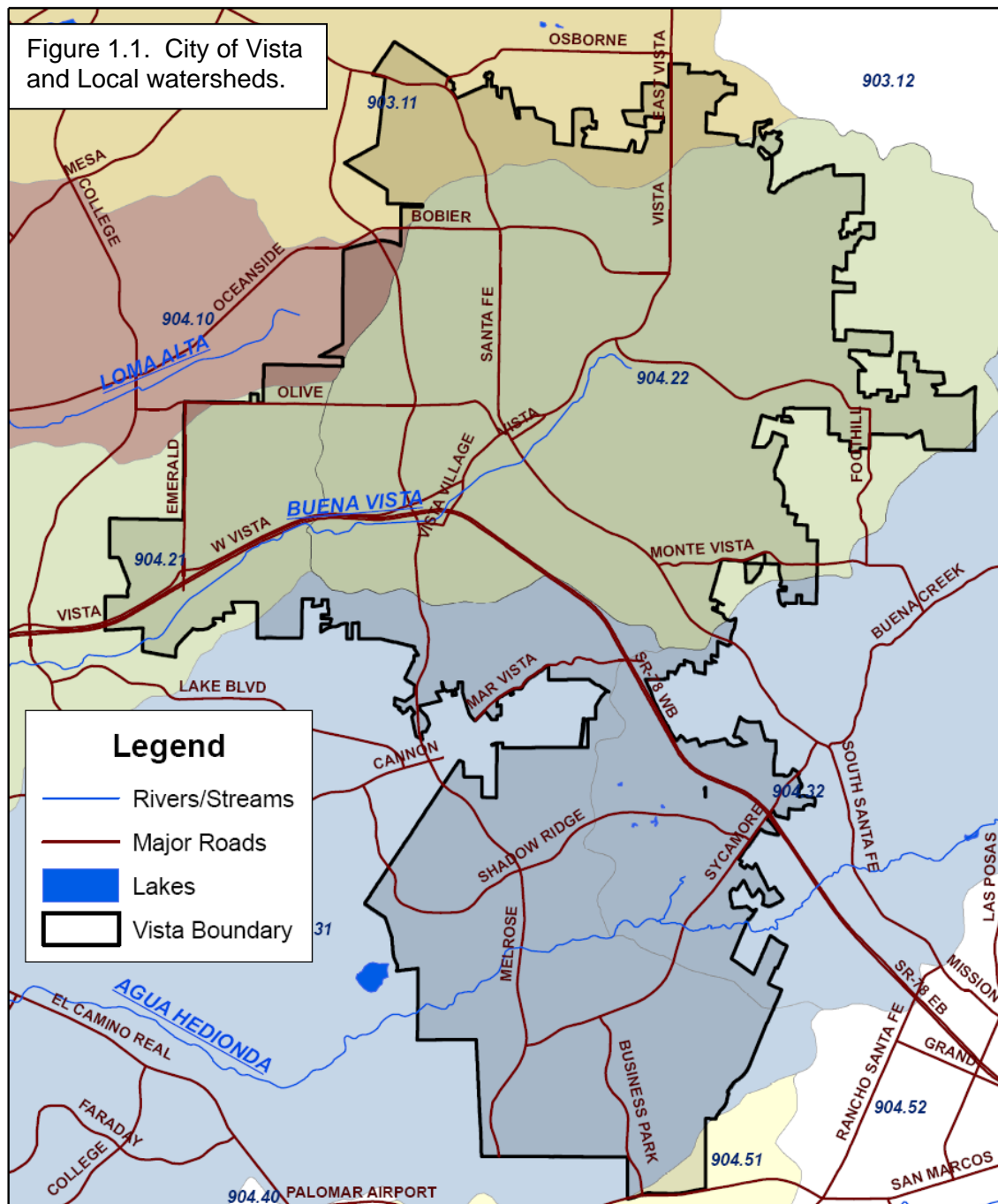
The program activities conducted during the reporting period for each of these components are detailed in Sections 2.0 through 14.0 of this document.

1.2 CITY OF VISTA CHARACTERISTICS

The City of Vista is located thirty-five miles north of downtown San Diego and seven miles east of the Pacific Ocean. It covers an area of approximately 18.6 square miles between Oceanside and Carlsbad to the west and San Marcos and unincorporated areas of San Diego to the east. The City has a population of about 95,000 people. The majority of the City (55%) is classified as residential. The remaining land use types are categorized as undeveloped land (13%), parks and recreation (9%), industrial (8%), commercial (6%) and agriculture (2%). Other land uses comprise the remaining 7% of the area.

The City is primarily located within the Carlsbad Hydrologic Unit (HU) (Figure 1.1). The Carlsbad HU is divided into several Hydrologic Areas (HA). The northern portion of the City is primarily within the Buena Vista Creek HA (55% of the land area) and

the southern portion is primarily within the Agua Hedionda HA (38% of the land area). The Loma Alta HA comprises approximately 1% of the northwestern portion of the City and the San Marcos HA comprises less than 1% of the southernmost portions of the City. The extreme northern portion of the City lies within the San Luis Rey HU (6% of the land area). Runoff generated within the city is ultimately discharged to the receiving waters of Agua Hedionda Creek, Buena Vista Creek and Guajome Creek, which are tributaries to Agua Hedionda Lagoon, Buena Vista Lagoon, and San Luis Rey River, respectively.



1.3 ORGANIZATION OF THE REPORT

The structure of the Annual Report is as follows:

SECTION 1 – Introduction

SECTION 2 – Municipal Component Activities

SECTION 3 – Industrial Component Activities

SECTION 4 – Commercial Component Activities

SECTION 5 – Residential Component Activities

SECTION 6 – Land Use and Development Component Activities

SECTION 7 – Construction Component Activities

SECTION 8 – Illicit Discharge Detection and Elimination Component Activities

SECTION 9 – Education Component Activities

SECTION 10 – Public Participation Component Activities

SECTION 11 – Assessment of JURMP Effectiveness

SECTION 12 – Fiscal Analysis

SECTION 13 – Special Investigations

SECTION 14 – Conclusions and Recommendations

1.4 PROGRAM UPDATES

In addition to procedural updates and program refinements, the City's programmatic updates are focused on program assessment and watershed activities.

The City continues to review and develop program management strategies to better qualify and quantify the effectiveness of its program. Using the regionally developed "Long Term Effectiveness Assessment" as a starting point, the City continues to revise program tracking and implementation methods to build towards a valid program assessment method.

Where applicable, the City is also reviewing and developing program changes to better reflect watershed based activities. An example would be reviewing minimum BMP requirements and increasing inspection frequencies for eating establishments based on priorities established in the watershed. As these program changes are

incorporated into the City's program, updates will be provided in the appropriate Annual Reports.

1.5 WURMP IMPLEMENTATION

Though not a requirement for implementation of the JURMP, another focus of City staff resources and efforts continues to be on watershed issues. The City continues to participate in ongoing coordination and activities implementing these programs. Some of these activities included watershed cleanup events, watershed educational material development and distribution, watershed surveys, and coordinating water quality data collection and analysis. The details of Vista's watershed implementation activities are found in the respective Carlsbad Watershed Urban Runoff Management Program Annual Report and the San Luis Rey Watershed Urban Runoff Management Program Annual Report.

2.0 MUNICIPAL FACILITIES AND ACTIVITIES COMPONENT

The City of Vista (City) provides services to its residents including street maintenance, wastewater collection, treatment and disposal, stormwater collection and conveyance, household hazardous waste disposal and recycling, parks and recreational facilities maintenance, street maintenance, law enforcement services, fire and paramedic services, and other services at City Hall. Numerous facilities, equipment, and City staff are necessary to provide these services. This section describes how stormwater management was addressed at these facilities and for these activities during the FY 05-06 reporting year

2.1 PROGRAM ACCOMPLISHMENTS

2.1.1 Source Identification (Municipal Inventory)

No significant changes were made to the City's municipal facilities inventory during the reporting year. The current inventory is included in Appendix A-1 of this document.

2.1.2 BMP Requirements

2.1.2.1 Pollution Prevention BMPs

Pollution prevention BMPs for municipal facilities include preventative maintenance, inspection, and incident response. The requirements are outlined in the Vista Municipal Code, Chapter 13.18 Stormwater Management and Discharge Control Program, in various facility SWPPPs, and are taught during employee training sessions. The City ensures that pollution prevention BMPs are implemented during annual facility inspections.

Specific pollution prevention BMPs were implemented during this reporting period, including regular maintenance and inspection of streets and roads, the storm drain system, the sewer collection system, landscaping, and municipal buildings. These pollution prevention BMPs are discussed below in Section 2.1.3. Incident response, including any municipal incidents (e.g. sewer spills), are discussed in Section 8.0 of this report.

2.1.2.2 BMP for Municipal Facilities

Municipal BMP requirements are in the Vista Municipal Code, Chapter 13.18 Stormwater Management and Discharge Control Program and in various facility SWPPPs. Municipal facility supervisors and staff perform routine inspections of their facilities to ensure that municipal BMPs are implemented. In addition, the City ensures that municipal BMPs are implemented during annual facility inspections.

All required pollution prevention and municipal site specific BMPs were implemented during the reporting period.

2.1.3 BMP Implementation

2.1.3.1 Streets and Roads

Through the City's street sweeping contracted services, approximately 8,000 curb miles were swept during the reporting year for an estimated 250 tons of material removed. This street sweeping is based upon a twice per week schedule of all City streets (non-inclusive of private roadways) and a once per week schedule for the City's main roadways. Vacuum street sweepers are used to remove sediments, litter and debris from the streets and curbs.

During the reporting period, the City determined that the performance of the street sweeping contractor began to diminish. It was decided that after the reporting period, the City would solicit for a new street sweeping contractor.

At the time of writing, the City is currently entering into an agreement with a new street sweeping contractor that will be providing more efficient coverage and reporting information than the previous contractor. The next annual report will have more information that may be useful for assessment and enhancing the street sweeping program.

The City contracts with an organization, Partnerships with Industry (PWI), for trash and litter collection along the City right-of-ways. During the reporting year, this contractor collected waste four days per week for approximately five hours per day. Approximately 3,120 bags of trash and debris were removed from the City's streets and right-of-ways during the year (for an estimated 18,700 pounds).

Approximately 20 acres of City medians, parkways and slopes are maintained by a private contractor through the Parks and Community Services Department. These areas are inspected routinely up to three times per week. Debris and vegetation are removed routinely. It is estimated that approximately 1200 yd³ of green waste and debris (estimated at 100 tons) were removed during the reporting period.

The City performs weed abatement in public right-of-ways and properties. Approximately 15 acres were mowed, resulting in

approximately 50 tons of debris removed and approximately 7.5 acres were sprayed by the Public Works Department from roads and streets. Other activities include weed removal, trash removal, miscellaneous debris removal and homeless encampment cleanup. During this reporting period, approximately three tons of materials were removed by Public Works from empty lots.

Another City cleanup program is graffiti removal. During the reporting period, the Public Works crews removed 22,075 ft² of graffiti from public property. The City uses a vacuum recovery system in conjunction with inlet protection to collect any water discharged during graffiti cleaning prior to proper disposal.

2.1.3.2 Parking Areas

In October-November 2003, the City contracted with a company to install storm drain inlet filters in City parking lots as listed in Table 2.1.

The filtration units were installed and are being maintained by a contractor. Based on contractor reports, a total of 75 lbs of sediment and debris were removed from the inlets prior to installation of the filters. Following installation, quarterly maintenance of the unit resulted in the removal of materials at each location as described in Table 2.1.

Table 2.1 Municipal Storm Drain Filtration Locations and Removals

Parking Lot Location	05-06	Nov-04			Feb-05			Apr-05			Jul-05			Oct-05			May-06			Jul-06			Sep-06		
		F=% Filter Used									D=% Debris						O=% Organics								
		F	D	O	F	D	O	F	D	O	F	D	O	F	D	O	F	D	O	F	D	O	F	D	O
City Hall parking lot (SW corner of Eucalyptus & Escondido avenues)	18 lbs sediment & debris removed	30	10	20	30	15	15	15	5	10	25	10	15	35	25	10	60	40	20	10	5	5	15	10	5
San Diego Co. Library (SW corner of parking lot)	15 lbs sediment & debris removed	70	30	40	40	20	20	20	10	10	25	10	15	80	40	40	65	25	40	20	5	15	16	6	10
San Diego Co. Library (12"x12" drains in parking lot)	15 lbs sediment & debris removed	50	10	40	30	10	20	15	10	5	40	10	30	25	-	25	80	50	30	100	30	70	80	20	60
San Diego Co. Library (12"x12" drains in parking lot)	-	50	25	25	75	60	15	15	10	5	60	20	40	40	20	20	70	50	20	100	25	75	30	10	20
Wave Waterpark parking lot	25 lbs sediment & debris removed	25	15	10	40	10	30	40	20	20	10	5	5	25	5	20	60	20	40	40	10	30	35	15	30
Brengle Terrace Park (near tennis courts)	-	90	85	5	75	70	5	50	25	25	25	20	5	55	40	15	90	80	10	25	20	5	45	40	5

Additionally, municipally owned parking areas at Brengle Terrace Park, City Hall, City Recreation Center, and Wildwood Park are dry swept using street sweepers on a weekly basis.

2.1.3.3 Municipal Yards

Throughout the reporting year the City's Public Works' Main Yard was informally reviewed/inspected by division managers every other week in conjunction with sweeping and drain cleaning. The storm drain inlets are inspected regularly on a biweekly basis, as well as before and after storm events. The BMPs, as discussed in the JURMP and amended in the Municipal Yard's SWPPP, were employed at the yards including:

- Good Housekeeping
- Ground Maintenance
- Material Storage Practices
- Material Inventory Procedures
- Spill Prevention and Response
- Waste Disposal and Recycling Storage Tanks & Outside Storage
- Vehicle and Equipment Maintenance Operations
- Preventative Maintenance
- Loading and Unloading Materials
- Reporting and Record Keeping

2.1.3.4 Specific BMPs implemented

Other BMPs were also implemented and are discussed below:

Main Yard

- Additional spill kits were installed around the site to aid in rapid response to spills.
- The hazardous materials storage area has a permanent cover and rubber berms are installed in front of the area as secondary containment.
- A larger container for the combustible materials storage locker is used and unneeded materials were disposed of to reduce potential for spillage.
- Removable covers are installed over the bulk material storage bins.
- Outdoor recycling bins were covered with tarps.
- Emergency storm drain covers are placed near all storm drain inlet so that the inlet could be covered in the event of a spill on site.
- Signage was placed in fuel pump area indicating the location of the spill kit; and

- Fuel and paint cans were moved to flammable storage containers.

Auxiliary Yard

- Covers were erected to store e-waste and other potential pollutants.

Satellite Yard

- Storm drain sediment and debris drying area is lined and bermed. It is also covered during rain events. Any wastes that may accumulate are tested prior to disposal.
- Disturbed slopes were stabilized with straw blanket to prevent erosion.
- Concrete V-ditches and site discharge points were cleaned and sediment control measures were implemented to minimize sediment discharges from the site.
- Sediment controls were placed around material stockpiles.



Satellite Yard-MS4 Sediment and Debris Drying Area

2.1.3.5 Parks and Buildings

A SWPPP is implemented for facilities and activities overseen by Parks and Community Services. The SWPPP outlines the BMP requirements for these facilities and activities. Throughout the reporting year the City's Parks and Community Services Department regularly inspected and maintained the twelve City parks, two historical parks, two theaters, water park, and the City's Vista Village Creek Walk. As reported in the JURMP the following BMPs are employed at these facilities:

- Facility and Grounds Maintenance
- Good Housekeeping
- Facility Repair, Remodeling and Construction
- Preventative Maintenance
- Landscape Waste Removal/Disposal
- Native Vegetation
- Irrigation
- Integrated Pest Management.

The City's Parks and Building staff regularly maintain City Hall grounds and landscaping. All litter, debris and landscape waste is

collected immediately following maintenance activities. BMPs included in the JURMP that were utilized during the reporting year include the following:

- Facility and Grounds Maintenance
- Good Housekeeping
- Material Storage Practices
- Material Inventory Procedures
- Visual Inspections
- Landscape Waste Removal and Disposal
- Facility Repair, Remodeling and Construction.

2.1.3.6 Specific BMPs Implemented

BMPs implemented at Buena Vista Park & Maintenance Yard include the following:

- Labeled storage areas and sheds,
- minimize exposure during refilling chemical equipment tanks, and
- require portable restroom facilities service/contractor to eliminate spillage from cleaning process.

At Brengle Terrace Park & Maintenance Yard, the Parks and Community Services Department implemented the following:

- Parking lot storm drain catch basin filter insert,
- used good-housekeeping efforts at the maintenance yard,
- required tenants to use good housekeeping practices,
- provided secondary containment for chemicals,
- stored materials under a cover,
- covered temporary stockpiles,
- maintained a supply of gravel bags onsite for dirt parking areas, and
- wash vehicles at commercial wash or used biodegradable soap when washing over pervious areas.

BMPs at City Hall include dry sweeping City Hall parking lot and removing sediments from fiber roll inlet protection. A storm drain filter insert is also inspected and maintained in the City Hall main parking lot. Another significant BMP at City Hall is the use of drought tolerant plants and mulch; thereby eliminating irrigation runoff and minimizing fertilizer and pesticide applications.

The WAVE Waterpark continues to implement the BMPs included in its own SWPPP. A storm drain filter insert is inspected and maintained in the WAVE's parking lot. Additional BMPs include general clean up procedures to eliminate discharges into storm inlet, disposal methods for shallow left over liquids from pool (scrubbing and acid washing), and an employee education program.



City Hall Landscape Replacement

2.1.3.7 Maintenance Of Municipal Separate Storm Sewer System

Per the City's JURMP (Feb. 2002), the City focuses its MS4 maintenance (inspections and cleanings) on known hot spots. During the reporting year the crew inspected and cleaned approximately 238 catch basins and curb inlets. This equates to approximately 37% of the City storm facilities. This work was performed using a rented vactor truck and City crews. It is estimated that approximately 142 yd³ of sediment and debris were removed from the system using the vactor truck. Additionally, the City Public Works crews removed approximately 1,393 cu. yds. of material from flood control channels.

During the 2005-06 rainy season, the City had 16 staff members on "rain patrol." Rain Patrols are responsible for clearing debris from inlets, grates, pipe openings and road shoulders; providing emergency erosion/sediment control (e.g. sandbags); surveying City streets for damage due to rain and/or flooding. It is estimated that 197 cu. yds. of sediment and debris were removed from the system by this staff during 2005-06 reporting period.



The City maintains a permanent BMP structure in the Buena Vista Creek channel. The debris net, installed immediately upstream of the Vista Village

Creekwalk, is maintained on a monthly basis and after major rainfall events. It is estimated that 34 cu. yds. of debris was removed during 2005-06. To facilitate sediment removal from this area, the City constructed an access ramp which allows small equipment to enter the lined channel and access the debris net.

Additionally, the City crews pull sediment from the Vista Village Creekwalk system. The amount of material removed during the reporting period was 251 cu. yds.

During the reporting period, the City progressed towards obtaining a city-wide permit for channel maintenance. The City hired a consultant who conducted field surveys of 32 maintenance sites. At each site, they assessed biological resources and provided aerial photo maps. The City has also been participating in the Regional Channel Maintenance Workgroup, and will continue to pursue necessary permits from the resource agencies to conduct the required maintenance.



2.1.3.8 Sewer Collection System

The City's sewage collection transmission system is inspected and maintained on an ongoing basis by three City crews. The maintenance schedule is established to ensure that the entire system is maintained on an annual basis. The approximate 280 miles of collection system and 8,000 manholes were all maintained during the reporting year with many portions cleaned twice. Additionally, approximately 40 miles of the system was video inspected and logged during the physical cleaning and inspection.

In addition to regular inspection and maintenance, pollution prevention also includes system upgrades and rapid spill response. The following sewer system capital improvement projects (CIP) were in the process, which will assist in minimizing inflow and infiltration (I/I) and/or system failures:

- Vista-Carlsbad Interceptor VC1–VC3: Design complete
- York Drive Sewer: Const. 90% complete
- Raceway Pump Station & Forcemain Replacement: Const. 90% complete
- Buena Outfall Forcemain Replacement: Const. 90% complete
- West Vista Way Sewer Replacement: Design on hold
- S. Santa Fe Sewer, Phase I: Design complete; Construction pending by County .
- S. Santa Fe Sewer, Phase II: Design complete; Construction pending by County
- S. Santa Fe Sewer, Phase III: Const. 90% complete
- Mimosa, Juniper, Grand and Green Oak – Design phase
- Hacienda Drive – Design phase
- Pala Vista – Design phase
- Buena Outfall Manhole Rehab – Design phase

During 2005-06, the City responded to and reported 17 sewer spills which resulted in approximately 17,429 gallons of sewage released from the collection system. Of the 17 spills, approximately 10% of the sewage spilled was recovered, resulting in approximately 16,000 gallons released to the environment. Nearly all of the sewage spills were caused by either construction activities or vandalism.

2.1.3.9 Capital Improvement Projects

The City is in the midst of completing the Wastewater and Storm Drain System Master Plan Updates. The Master Plan Updates will provide several items to assist in the implementation of the City's stormwater program. The following is a description of those items:

- Development of a GIS system that will include all public storm drain facilities. The GIS will allow staff to further integrate available information about facilities upstream of any point in the system. This capability enhances the IC/ID program by quickly identifying potential sources in the event of IC/ID monitoring that exceeds action levels.
- Development of a hydraulic model that will assist the City in determining the capacities and identify potentially deficient sections of the storm drain system.

- Identification of sanitary sewer collection systems that are in disrepair and prioritize their repairs. This will reduce and prevent losses of sewage to the ground and potential sanitary sewer overflows.

2.1.3.10 Fire Stations

During this reporting period, the Fire Department continued to implement the Fire Facility and Activity SWPPP. The SWPPP was developed during the previous reporting period and after a full year of implementation, no changes to the SWPPP were found to be necessary. All of the pollution prevention and other specific BMPs were implemented.

The Fire Facility and Activity SWPPP is similar to those prepared for other departments. The SWPPP describes activities and facilities that may cause pollutants and describes the BMPs required to mitigate the potential pollution.

Several training sessions were conducted for the Fire Department staff to cover all of the shifts. The training was held during the month of June 2006.

2.1.4 Management of Pesticides, Herbicides, and Fertilizers

The City has an active program to manage the use of pesticides, herbicides, and fertilizers. The following practices were implemented to comply with stormwater pollution prevention:

- Certified pesticide applicator staff attended continuing education seminars to keep licenses current. Non-certified staff are trained in basic pesticide safety.
- Use of some Category 1 and Category 2 pesticides (branded as Diazinon, Dursban, and Metasystox) has been reduced and/or eliminated due to increasing usage restrictions and environmental concerns.
- Chemicals and fertilizers are never “dumped” into landscape, storm drains, or trash cans. Chemical and fertilizer inventories are used according to label directions. Empty containers are triple rinsed and either recycled or made unusable and disposed of in accordance with label directions and regulations.
- MSDS files were updated to include new environmental restrictions, and other product use changes. City applicators are informed of all changes.
- Integrated Pest Management (IPM) practices are part of the City’s ongoing training program. Emphasis is placed on using other types of control measures first, (e.g. adjusting watering

or fertilizer schedules, use of biologic control measures) using chemical control only as necessary and in needed amounts.

- Landscape contractors were required to follow the same requirements listed above. Landscape contracts require contractors to notify the City and submit for approval any pesticides and fertilizers prior to use. Language was also added to the landscape contracts to more specifically reference stormwater pollution prevention regulations. City staff regularly inspects and corrects the activities of landscape.
- Records of pesticide use were maintained in accordance with the California Department of Pesticide Regulations (DPR). Records of usage are maintained for a minimum of five years. Monthly use reports are filed with San Diego County Department of Agriculture. The County performs compliance inspections of chemical storage facilities and chemical usage records. Chemicals are stored to avoid contact with precipitation during rain events.

2.1.5 Inspection of Municipal Areas and Activities

Inspections of the municipal facilities were performed on several different levels during this reporting period, including routine informal self-inspections and annual facility inspections by the City department responsible for the facility. The purpose of these inspections was to ensure that BMPs (including those for pollution prevention) were being implemented. Of the 17 high priority municipal areas, six are actual municipally operated facilities, while the remainders are streets and parking lots, the MS4, the sewer system, and flood control facilities (open channels, underground drainage systems, and detention basins). These facilities are inspected routinely by municipal Public Works and Engineering Sanitation staff and formal inspection forms are not generated. Table 2.4 provides a summary of the formal annual stormwater inspections performed for the municipally operated facilities.

Table 2.4 Summary of Annual Stormwater Inspections for Municipal Facilities

MUNICIPAL FACILITY	RESPONSIBLE DEPARTMENT	INSPECTION DATE
The Wave Waterpark	Parks and Community Services	5/1/06
Buena Vista Park & Maintenance Yard	Parks and Community Services	5/25/06
Brengle Terrace Maintenance Yard	Parks and Community Services	5/25/06
Public Works Yard (Main)	Public Works Department	4/14/06
Public Works Yard (Auxiliary)	Public Works Department	4/14/06
Satellite Yard	Public Works Department	4/14/06

2.1.6 Compliance and Enforcement

During annual inspections performed by the facility staff, no apparent follow up items were identified. In the event that follow-up items are identified, these follow-up recommendations would be presented to the responsible facility manager and the BMPs would be implemented.

There was one complaint related to BMP failure at a City Park. A verbal notice to correct the BMPs was given to Parks personnel, and the issue was resolved. No other enforcement actions were taken on municipal areas and activities.

2.1.7 Education and Training

During the reporting period, training sessions were held for City staff. Each department receiving training has different roles in the City's JURMP and therefore the training is specific to their activities. The following is a summary of the in-house training sessions:

Department or Division	Date
Public Works – Fleet Maintenance	March 1, 2006
Code Enforcement	June 27, 2006
Public Works – Sewer Crew	February 15, 2006
Public Works – Streets Maintenance	March 1, 2006
Fire Department Training	May 26, 2006
Fire Department Training	June 5, 2006
Fire Department Training	June 27, 2006
Building Department Training	March 27, 2006
Parks Training	April 4, 2006
Engineering Inspectors Training	May 11, 2006

2.2 IMPLEMENTATION PLANS FOR 2006-07

During the next implementation period, several BMP programs are planned, including:

- Further develop controls on fire sprinkler and hydrant testing discharges.
- Develop a systemwide GIS for the City's stormwater facilities, including open channel facilities that aren't typically mapped. This will help identify runoff patterns and assist staff with locating dischargers
- Have high priority facilities inspected annually by an outside contractor.
- Continue to work both locally and regionally (with other Copermittees) on storm drain channel maintenance agreements and procedures.

2.3 PROPOSED REVISIONS TO JURMP

Upon adoption of the revised Municipal MS4 permit, the City will be making revisions to the JURMP to comply with the requirements of the new Order. Until formal adoption, the City cannot commit to any JURMP revisions at this time.

3.0 INDUSTRIAL FACILITIES

The objective of the industrial facilities component of the City's Jurisdictional Urban Runoff Management Program (JURMP) is to reduce pollutants in urban runoff from industrial sites. This section summarizes the City's efforts and accomplishments during the July 2005-June 2006 (FY05-06) reporting period for this existing land use component.

3.1 PROGRAM ACCOMPLISHMENTS

3.1.1 Source Identification (Industrial Inventory)

The City of Vista industrial inventory is updated with potential new industries based on the City's new business license list, information from complaint investigations, inspections, and phone and business listings. Based on these data, the applicable businesses are added to the City's industrial database as potential regulated industrial facilities and are verified during the City's next round of annual inspections.

The City contracted D-Max Engineering, Inc. (D-MAX) to conduct the FY 05-06 inspections. As a result of the comprehensive site inspections discussed below, the City's database reflects the sources and prioritization of sources based on their potential to cause adverse impacts to water quality if discharges are released from their operations and facilities. The inventory was updated following the annual industrial inspections conducted during this reporting period, and the revised inventory is included in Appendix B-1. Businesses listed as "potential" are new or have not received inspections to accurately determine priority (medium/low).

In total, 55 facilities initially identified as high or potentially high priority industrial at the end of 2004-05 were inspected during this reporting period (Appendix B-2). An additional twenty of the medium priority industrial facilities were re-inspected to check the businesses' compliance status with the State's General Industrial Storm Water Permit (Industrial Permit).

Over the course of the FY 05-06 inspection program, D-MAX found that a number of the businesses on the inspection list were no longer operating at the location specified or that they were not conducting activities consistent with their listed prioritizations. D-MAX recommended many priority changes from a higher priority to a lower priority. Changes from the industrial high prioritization are summarized in Table 3.1. A summary of all priority changes and inventory updates from D-MAX inspections are found in Appendix B-3.

Table 3.1 High Priority Industrial Summary

Change	Quantity
Home Based retail businesses	1
Moved out of Vista or Out of Business	7
Not in Vista City limits	4
Priority changed to medium industrial	14
Priority changed to low industrial	2
Priority changed to high commercial	1
Duplicate Listing	1
Priority changed to low commercial	5
High Priority (no change)	20
Total	55

During this reporting period, the City of Vista piloted a Pollutant Discharge Potential Assessment form developed by D-MAX. The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water. This is discussed further below.

3.1.2 Industrial Inspection Procedures

Inspection Notification Letter and Educational Materials

During the 2005-2006 inspection program, in contrast to previous years, inspections were not scheduled for most businesses. Before commencing the inspection process, the City prepared and mailed a letter to the majority of businesses selected for inspection. The letter provided general information about the program and informed the business owner of the upcoming inspection. The City prepared folders for industrial facilities containing handout materials related to the Industrial Permit and applicable BMPs.

Site Inspection

The site inspection procedure involved a thorough examination of the facility and all outdoor activities with the potential to generate urban runoff pollution. A standard five-page inspection form was completed at each site to document the visit (submitted with previous Annual Report). Whenever a business was found to have moved, or was located outside City jurisdiction, or was a duplicate listing, an inspection form was completed to document that finding. In the case of facilities where the listed business had moved and was replaced, inspections were conducted at the replacement business if it required inspection based on prioritization guidelines provided in the City's JURMP.

Meeting With Manager/Responsible Party

Upon meeting the manager/responsible party, the inspector discussed the storm water program and the purpose of the inspection; using this

opportunity to assess knowledge and provide education to the business regarding storm water compliance. This included a brief overview of the federal and state water quality laws, municipal permit requirements, impacts of urban runoff, and a description of the local water bodies and pollutants of concern. The inspector also discussed Best Management Practices (BMPs) to eliminate pollutant discharges to the storm drain system and distributed educational materials approved by the City.

After the introduction, the inspector verified the existing information including the business address and phone number and made changes as necessary. The inspector also thoroughly evaluated the Standard Industrial Classification (SIC) and North American Industrial Classification System (NAICS) codes to verify whether they reflected the principal activity of the business. If the SIC and/or NAICS codes did not reflect the principal activity of the business, applicable SIC and/or NAICS codes were recommended.

BMP Assessment

After the introductory meeting, the inspector conducted a thorough walk-through of the facility, generally accompanied by the manager/responsible party, to inspect all areas exposed to storm water and to evaluate existing BMPs and their effectiveness. If specific BMPs were not implemented or found to be ineffective, BMP recommendations were made and noted on the inspection form. If a storm water ordinance violation was observed or significant corrective action was needed right away, the inspector notified the City code enforcement officer immediately for further assistance.

If the facility had a Storm Water Pollution Prevention Plan (SWPPP) and storm water monitoring program, the SWPPP was assessed to ensure it contained proper sections in accordance with the General Industrial Storm Water Permit. The results from the storm water monitoring program were also reviewed and compared with RWQCB industrial benchmark values.

Storm Water Quality Inspection Summary and Conclusion

At the completion of the walk-through, the inspector summarized the recommended corrective actions and/or violations on the inspection form and discussed any recommendations with the manager/responsible party. If corrective actions were provided to the business, the manager/responsible party was provided a photocopy or fax of the inspection summary. In addition to the five-page inspection form that was completed, a drainage schematic was included for each inspection conducted as well.

Pollutant Discharge Potential Assessment

D-MAX recently developed a one-page Pollutant Discharge Potential Assessment (PDPA) form to help aid effectiveness assessment and

source identification. Completing the form should provide additional data to help refine the initial pollutant discharge potentials (PDP) assigned to various source types in the Copermitees' recently-completed Long Term Effectiveness Assessment. The form is intended to be a semi-quantitative tool to identify which sites are major sources of the principal pollutants of concern for storm water. For each of several main categories of pollutants, a numeric PDP on a scale from 0 (not present) to 5 (severe) is assigned. Where applicable, the area(s) of the site needing more BMPs and responsible for the PDPs are identified via check boxes, and the type of BMP necessary is identified. The form also shows whether a given pollutant is 303(d) listed for the receiving water body and whether it is a watershed constituent of concern (COC). A copy of the PDPA form is included as Appendix B-4. The following provides a list of some potential applications of this information:

- Identify and target the major industrial/commercial polluters in the City
- Identify trends in pollutant discharge potential by SIC code, area of City, etc.
- Identify trends in pollutant discharge potential for same site over the years
- Dry weather upstream investigations for action level exceedances
- Follow-up investigation prioritization

During FY 05-06, the City of Vista requested that D-Max use the form as a pilot project. D-MAX completed PDPA forms for the following industrial facilities in the Agua Hedionda Watershed:

- *Armorcraft Off-Road Corp*
- *H2O F/X*
- *Jensen Meat Co Inc*
- *Mihal Enterprises dba JT- Designs*
- *Osmonics (GE)*
- *Roadway Express Inc.*

The PDP results are discussed in 3.1.3 below.

Data Management

After each inspection was completed, data were entered into a Microsoft Access database. The database was used to document each inspection conducted and to provide easy access to inspection information. D-MAX's Assistant Project Manager performed a quality assurance check on each inspection form and the data entered into the database. No significant changes were made to the format of the database in FY 05-06.

3.1.3 BMP Requirements and Inspection Results

Pollution Prevention BMPs

The City's JURMP describes the pollution prevention strategy for industrial businesses that includes a combination of inventory, inspection, education and enforcement. Additionally, Vista Municipal Code section 13.18.100(E)(3) requires high priority industries to consider, and where deemed appropriate by the facility, implement pollution prevention practices. At a minimum, this includes the following types of measures:

- ✓ The use of smaller quantities of toxic materials or substitution of less-toxic materials;
- ✓ Changes to production processes to reduce waste;
- ✓ Decreases in waste water flows;
- ✓ Recycling of wastes as part of the production process;
- ✓ Segregation of wastes; and,
- ✓ Treatment of wastes on-site to decrease volume and/or toxicity.

Additional activity specific pollution prevention BMPs are detailed in the City Standards Manual.

Industrial Facility BMPs

The City's Municipal Code Section 13.18 (Stormwater Ordinance) and the accompanying City Stormwater Standards Manual Section D, Industrial Activities and Facilities, document the specific BMP requirements for industrial businesses operating in the City of Vista. Business owners are frequently referred to this detailed information via hard copies sent to them, presented during inspections, and/or accessed through the City's website. In general, the following BMPs are required at each industry;

- ✓ Good housekeeping;
- ✓ Preventive maintenance;
- ✓ Material handling and storage of significant materials;
- ✓ Employee training;
- ✓ Solid waste (non-hazardous) handling and recycling;
- ✓ Record keeping;
- ✓ Self inspection/quality assurance; and
- ✓ Spill response.

The business activity-specific and pollutant-specific BMPs are also included in the Stormwater Ordinance and Standards Manual.

Most BMP implementation problems at industrial sites were related to significant outdoor exposure of materials and/or activities. Because many of the City's industrial facilities are found in new industrial parks, where essentially all activity is indoors, the number of BMP deficiencies observed at industrial sites was relatively small.

Municipal Storm Water Ordinance Violations

During the inspection program, one industrial business was found to be in violation of the City's Municipal Storm Water Ordinance. This was for improper implementation of required BMPs. This business was revisited by the City Stormwater Code Enforcement Officer and found to have implemented the required BMP corrective actions.

During the reporting year, there were 5 compliance investigations conducted of industrial facilities. These complaints and/or violations included illegal discharge, improper storage of materials and lack of BMPs. A summary of these investigations is found in Appendix E-1 which lists all stormwater enforcement actions for FY05-06.

Appropriate documentation, required corrective action, and follow-up information were logged into the complaint tracking database. For these cases, 3 received formal written notices of violation with required corrective actions and time frames, and 2 received administrative citations also with corrective actions and compliance time frames. These enforcement actions were sufficient for obtaining compliance. All activities have written documentation recorded in case files that include corrective actions and any follow-up actions and correspondence.

Industrial Permit Compliance

In addition to looking at general BMP implementation and the suitability of JURMP classifications, NAIC codes, and/or SIC codes, Industrial Permit compliance status was evaluated at the businesses initially classified as high and medium priority industrial. There were several cases of Industrial Permit-related non-compliance noted. Appendix B-5 provides a comprehensive listing of all Industrial Permit-related compliance/non-compliance, and includes five businesses that were found to require coverage under the Industrial Permit but had not yet filed Notices of Intent (NOI).

Several of the industrial sites that were inspected were found to be operating facilities that were currently eligible for exemption from the Industrial Permit based on no exposure. Where needed, NONA/NEC exemption paperwork was distributed and assistance was provided in completing the forms. Twenty-two of the facilities inspected by D-MAX during this reporting period had valid NONA/NEC paperwork onsite. These 22 facilities are included in Appendix B-5.

At the end of this reporting period, completed NONA/NEC applications were submitted to the Industrial Compliance Unit of the Regional Board for the following businesses: Bravo Screen Print; Modern Medical Supply; HI Rez Digital Solutions; Aea Wireless; NML, LLC; and Grilla.

Storm Water Monitoring Requirements

Eight facilities identified as high priority industrial were found to not be meeting the storm water monitoring requirement. This information is also found in Appendix B-5. These businesses were notified of their requirement to conduct monitoring as specified by the Industrial Permit.

Pollutant Discharge Potential Assessment

Facility evaluation using this form was initiated as a pilot-program during FY 05-06. Forms were completed by inspectors for six industrial facilities. No additional BMPs were recommended at two facilities, which scored 2 or less for all pollutants. Of the remaining four facilities assessed, there were no PDP scores higher than 3. Additional BMPs were recommended in the written inspection report provided to these facilities. It is anticipated that this program will be expanded during FY 06-07 to continue to gather data on pollutant discharge potential from other industrial facilities.

3.1.4 Education

During inspections, business representatives were educated regarding storm water issues both through the distribution of printed storm water educational materials and through verbal interaction with the inspectors. In particular, verbal interaction is a powerful tool as it is individually tailored by the inspector to the specific issues and concerns of the location and facility representative, and it engages that person in thinking about issues directly related to his or her daily actions. This type of education was conducted during all site inspections.

Printed educational materials were also distributed to businesses. As with previous years, in addition to the educational materials distributed during inspections, businesses were mailed a City of Vista letter notifying them of the upcoming inspections and informing them of the requirement to implement the corrective actions recommended by the inspector. Educational materials distributed included handouts and/or related forms regarding either gaining coverage or exemption from the Industrial Permit. A breakdown of the types and numbers of educational materials distributed is presented below.

TABLE 3.2 EDUCATIONAL MATERIALS DISTRIBUTED

Educational Material	# Distributed
Industrial Permit packet	11
NOI handout	11
Industrial Permit exemption handout	9
NONA/NEC forms	9

In order to educate all businesses within Vista, not just the businesses that are inspected during the year, the Water Quality Protection Program continued to distribute an English-Spanish flier describing the City storm water regulations and what businesses must do to comply (developed during 2004-05). This flier was distributed at the City's business license counter, attached to each business license application, and was distributed in the business license renewal forms mailed in June 2006.

3.1.5 Reporting of Non-compliant Sites

During FY 05-06, there were no sites found that met the criteria of non-compliant sites that posed a threat to human or environmental health.

3.2 IMPLEMENTATION PLANS FOR 2006-07

The following lists the recommended implementation actions for the industrial component for FY 2006-07:

- Continue ongoing updates of the industrial business inventory database.
- Conduct annual inspections for all high priority industrial facilities and new potential high priority industrial businesses.
- Conduct inspections of medium and low priority industrial facilities, as resources allow.
- Complete follow-ups as a result of the FY06-07 inspections and input findings in the database.
- Update the City's website to include additional information for businesses.
- Require all high priority businesses not currently monitoring to do so and initiate enforcement for noncompliance.
- Expand the use of the PDPA to more inspected facilities to further identify potential pollutant sources and additional BMPs needed to mitigate those pollutants.

3.3 REVISIONS TO JURMP

The City's JURMP revisions include an updated industrial facilities inventory, which has been provided as Appendix B-1 in this report.

4.0 COMMERCIAL FACILITIES

The objective of the commercial facilities component of the City's JURMP is to reduce pollutants in runoff from commercial sites. This section summarizes the City's efforts and accomplishments during the July 2005-June 2006 (FY05-06) reporting period for this existing land use component.

4.1 PROGRAM ACCOMPLISHMENTS

4.1.1 Source Identification (Commercial Inventory)

The primary source of information for the commercial inventory is the City's Business License database, and the inventory is updated with information from complaint investigations, inspections, and phone and business listings. A list of new businesses, provided periodically from Business License staff, includes general business information as well as the type of operation and commercial SIC/NAIC code. Based on this information, those with high priority SIC/NAIC codes or descriptions are added to the inventory and are verified or reprioritized when they are inspected.

The commercial inspections were conducted by the City's contractor, D-MAX Engineering, Inc. (D-MAX) and by City staff. Information obtained by D-MAX during site visits or preliminary review identified 106 commercial facilities that should be removed from the inventory for the following reasons:

- Eighteen businesses were found to be duplicate business listings.
- Eight businesses had been assigned inappropriate NAICS codes. These eight facilities are low priority commercial-type operations and did not require full BMP assessments.
- Seventy-nine businesses were found to have moved or gone out of business. Twenty-seven of the facilities were found to be vacant, while 52 of the facilities had been replaced by new business. Only five of the new, replacement businesses received inspection; the remaining 47 replacement businesses were low priority commercial-type operations that did not require inspection.
- One business was found to be located outside of the jurisdiction of the City of Vista.

As part of the inspection process, the assigned JURMP classifications, NAICS codes, and SIC codes were assessed to determine if they appropriately described the businesses' threat to water quality. If no JURMP classification, NAICS code, or SIC code had been assigned, appropriate classifications were recommended. Upon inspection, 18 commercial facilities were either reprioritized or assigned a JURMP priority for the first time. The assigned NAICS and SIC codes were also

evaluated to determine if the business description was representative of the assigned classification. If an NAICS or SIC code was not provided for a business, the appropriate code was recommended during the inspection. It was determined during the course of the inspections that 304 commercial facilities required a change of SIC and/or NAICS codes. These changes are reflected in the revised inventory. Any changes to business prioritization are shown in Appendix B-3.

An updated inventory is included in Appendix C-1 and includes 631 businesses. The inventory was reorganized to further categorize the commercial businesses into the subcategories listed in Order 2001-01 Section F.3.c.(2).

4.1.2 Inspection Procedures

Prior to beginning the 2005-2006 inspection program, the City of Vista prepared a list of the businesses to be inspected. The commercial inspection list focused on eating and drinking establishments, automobile facilities, and nurseries and greenhouses. This focus was based on priorities established through the Carlsbad and San Luis Rey WURMPs, as well as City of Vista inventory priorities and complaints.

D-Max was contracted to conduct over 490 commercial inspections. City of Vista staff conducted over 35 inspections. Inspections were not scheduled with businesses, although most businesses had been sent a letter notifying them of upcoming storm water inspections. The inspection procedures including forms and data management are the same as those described in 3.1.2 of this annual report.

4.1.3 BMP Requirements

During site inspections, owners and operators were informed of the required pollution prevention measures for inclusion into their processes, where applicable. During the inspection and follow-up process, the inspector informed the businesses of the BMPs that must be implemented at their site. Additionally, all known businesses within Vista, not just the businesses that are inspected each year, were sent a Water Quality Protection Program English-Spanish flier describing the City storm water regulations and what businesses must do to comply. This flier is distributed at the City's business license counter, attached to each business license application, and was distributed in the business license renewal forms mailed in June 2006.

Pollution Prevention BMPs

The City's JURMP describes the pollution prevention strategy for commercial businesses that includes a combination of inventory,

inspection, education and enforcement. Vista Municipal Code section 13.18.090(C) requires commercial facilities to implement the pollution prevention practices specified in the City's Stormwater Standards Manual that are applicable to their operation.

BMP Implementation

In addition to the pollution prevention BMPs, the City's Municipal Code Section 13.18 (Stormwater Ordinance) and the accompanying City Stormwater Standards Manual specify the BMP requirements for commercial businesses operating in the City of Vista. Business owners are frequently referred to this detailed information via hard copies sent to them, provided to them during inspections, or accessed through the City's website. Commercial category and activity specific BMPs are detailed in the Standards manual. The following general BMPs were required for all regulated businesses:

- ✓ Good housekeeping;
- ✓ Preventive maintenance;
- ✓ Material handling and storage of significant materials;
- ✓ Employee training;
- ✓ Solid waste (non-hazardous) handling and recycling;
- ✓ Record keeping;
- ✓ Self inspection/quality assurance; and
- ✓ Spill response.

4.1.4 Inspection Results

During 2005-06, the City focused on inspecting restaurants, automotive facilities, and greenhouses and nurseries.

During the inspection program, 31 commercial businesses were found to have a total of 32 violations of the City's Municipal Storm Water Ordinance. The majority of the violations were for improper implementation of required BMPs. The following provides a summary of the number and type of violations noted:

- Thirty violations for improper implementation of required BMPs
- One violation for littering
- One violation for an illegal discharge

The most common concerns for auto shops were problems with excessive oil stains and used oil and antifreeze drums lacking secondary containment and/or overhead coverage. As with previous year's inspections, the most common concerns for restaurants found to be in violation were dumpster and grease recycling bin areas. Dumpster lids were often left open, grease bins stored outside lacked cover and

secondary containment, and there were often significant grease stains in the surrounding waste area. Many businesses had secondary containment in the form of double-walled grease bins; however, the City determined that this BMP was not an adequate form of secondary containment. Businesses with double-walled grease bins were advised to have additional spill containment measures on hand, such as berms or dikes and dry absorbent materials.

The City Stormwater Code Enforcement Officer conducted follow-up visits for the 31 businesses noted above. All were restaurants and automotive facilities. One restaurant was closed due to a fire. Eighteen were found to have implemented the corrective actions listed in the inspection reports. Enforcement cases were opened for the remaining twelve facilities. Enforcement was initiated with a Notice of Violation and escalated to an administrative citation in one case. The Code Enforcement Officer closed all cases after verifying implementation of the required corrective actions.

Inspections of greenhouses, nurseries and related businesses resulted in many businesses being reprioritized in the inventory. Many businesses originally categorized as high priority commercial (nurseries and greenhouses) were actually a warehouse or distributor, and thus reprioritized to industrial. Those that were actual growing operations of nurseries and greenhouses were prioritized as high commercial.

Pollutant Discharge Potential Assessment (PDPA)

Facility evaluation using this form (described in report section 3.1.2 and provided in Appendix B-3) was initiated as a pilot-program during FY 05-06. One commercial facility was included in this initial assessment (Hello Deli). PDPA results for potential pollutants assessed at this facility showed a Pollutant Discharge Potential (PDP) of 3 for trash & debris, 2 for bacteria and 2 for oxygen demanding substances. Additional BMPs were recommended in the written inspection report provided to the facility.

It is anticipated that this program will be expanded during FY 06-07 to continue to gather data on pollutant discharge potential from other commercial businesses.

4.1.5 Education

Each visit or inspection of a commercial business is utilized by the inspector as a means to assess current knowledge and educate the business owner. Business representatives were educated regarding storm water issues both through the distribution of printed storm water educational materials and through verbal interaction with the inspectors. In particular, verbal interaction was a powerful tool as it was individually tailored by the inspector to the specific issues and concerns of the location.

and facility representative, and it engaged that person in thinking about issues directly related to his or her daily actions. This type of education was conducted during all site inspections.

Printed educational materials were also distributed to businesses during inspections. As with previous years, in addition to the educational materials distributed during inspections, businesses were mailed a City of Vista letter notifying them of the upcoming inspections and instructing them that they were required to implement the corrective actions recommended by the inspector. Educational materials distributed included the following handouts: “The Green Wrench Guide,” providing storm water BMPs for the automotive industry; “What’s Cookin’,” providing storm water BMPs for eating and drinking establishments; “Storm Water Protection Is In Good Hands...Yours”; and a North County Stormwater Program posters outlining proper storm water BMPs specific to either auto shops or restaurants. A breakdown of the types and numbers of educational materials distributed is presented below.

TABLE 4-1 EDUCATIONAL MATERIALS DISTRIBUTED

<u>Educational Material</u>	# Distributed
Green Wrench Guide (Automotive Brochure)	46
What’s Cookin’ (Restaurant Brochure)	53
“Storm Water Protection Is In Good Hands...Yours” (Automotive Poster)	88
“Storm Water Protection Is In Good Hands...Yours” (Restaurant Poster)	196

All businesses were also mailed a City of Vista brochure outlining general commercial BMPs as part of their business license renewal application.

4.1.6 Compliance and Enforcement

During the reporting year, there were 93 complaint investigations and enforcement cases involving commercial businesses. Many enforcement actions were taken in response to noncompliance observed by City staff during follow-up inspections.

In total, there were 41 verbal warnings, 46 Notices of Violation, and 8 administrative citations issued to obtain compliance. The violations varied in nature from poor housekeeping, to lack of secondary containment for oils, to power washing. The details of these investigations are including in Appendix E-1 summarizing all stormwater enforcement actions for FY05-06.

4.2 IMPLEMENTATION PLANS FOR 2005-06

The following lists the recommended implementation actions for the commercial component for FY 2006-07:

- Update the City's JURMP inventories to add the newly identified commercial businesses.
- Coordinate with the City business license department to ensure that changes in NAICS codes are reflected in the City's business license database.
- Conduct follow-up to commercial inspections as needed and input the results in the database.
- Expand the use of the PDPA to further identify potential pollutant sources and additional BMPs needed to mitigate those pollutants.
- Focus on the common non-compliance issues and require additional BMPs when needed (i.e., restaurant grease storage/disposal).

4.3 REVISIONS TO JURMP

The City's JURMP revisions include an updated commercial facilities inventory, which has been provided as Appendix C-1 in this report.

5.0 RESIDENTIAL COMPONENT

The objective of the City of Vista's (City) residential JURMP component is to prevent or reduce pollutants in runoff from all residential land use areas and activities. This is accomplished by encouraging pollution prevention, prioritizing residential threat to water quality, requiring BMP implementation, and conducting enforcement activities when necessary to obtain compliance.

5.1 PROGRAM ACCOMPLISHMENTS

5.1.1 Threat to Water Quality Prioritization

In the JURMP, the City identified its high priority residential activities and areas in accordance with Order 2001-01, F.3.d.(2) which include the following:

- Automobile repair and maintenance;
- Automobile washing;
- Automobile parking;
- Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
- Disposal of household hazardous waste (e.g., paints, cleaning products);
- Disposal of pet waste;
- Disposal of green waste;
- Any residence tributary to a Clean Water Act section 303(d) impaired waterbody, where the residence generates pollutants for which the waterbody is impaired; and
- Any residence within or directly adjacent to or discharging directly to a coastal lagoon or other receiving waters within an environmentally sensitive area (ESA).

The City has also identified the following as high priority residential activities/areas:

- Private sewer laterals;
- Private sewer septic systems; and
- Private roads/streets.

These high priority activities or areas have not changed during the reporting period.

5.1.2 Residential BMP Implementation

Residential BMP Requirements - The City revised its Municipal Code Section 13.18 Stormwater Management and Discharge Control Ordinance in February 2002. These revisions included addition of the high priority

residential activities with the potential to generate pollution and impact the City's MS4 and receiving waters, and Best Management Practices (BMPs) to minimize the impacts of these activities. The language in the Municipal Code specifically addresses the following activities:

- Vehicle or Boat Repair and Maintenance;
- Vehicle Washing;
- Vehicle Parking;
- Home and Garden Care Activities and Product Use;
- Home Care and Maintenance;
- Manure and Pet Waste Management;
- Private Sewer Laterals and Septic Systems; and
- Street Sweeping of Private Roads or Streets.

BMPs for all of these activities are required by the Municipal Code and the City's JURMP.

Household Hazardous Waste Disposal – The City of Vista provides its residents with a household hazardous waste (HHW) collection center at the Auxiliary Corporation Yard at 1165 East Taylor Street, as well as the option of curbside pickup of HHW. This facility is a Regional Household Toxics Collection Center and is opened to Vista residents every Saturday from 9:00 am to 3:00 pm. The facility accepts a wide range of wastes from aerosols to batteries, paint, and solvents. Electronic waste is also accepted at the Vista facility. The facility and services are advertised in brochures, special mailers and on the City website. A summary of the material collected during this reporting period is contained in Section 8.4, Tables 8.3 and 8.4.

Sanitary Sewer Private Laterals - During this reporting period, the City continued to distribute information to residents' about their responsibility for maintenance and repair of their private sewer lateral pipes. The City also responded to reports of private lateral overflows. These responses are summarized in Appendix E-1.

Residential Educational Efforts – The City continued to make available and distribute activity/pollutant specific literature to residents. Some of these materials include information in Spanish. Materials also include important City phone numbers and contacts.

City Stormwater Staff also worked with the City's Community Cleanup and Beautification Committee, Weed and Seed representatives and Law Enforcement staff through their various residential outreach activities and programs. These various groups deal with a broad range of community topics, but all include a range of environmentally-related issues to encourage citizen involvement including:

- Neighborhood Beautification,
- Public Safety and Health
- Public Area Enhancements,
- Pollution Prevention
- Recycling Promotion, and
- Stormwater Runoff.

Events for Residents - During the reporting year, the City participated in several community events at which residential BMP information was disseminated. These events included the following:

- Coastal Cleanup Day (Buena Vista Creek), September 17, 2005;
- Earth Day Creek to Bay Cleanup (Agua Hedionda Creek), April 29, 2006;
- San Luis Rey Peppertree Day, April 2, 2006 (watershed);
- Avocado Day Festival, April 23, 2006 (watershed); and
- City of Vista Public Works Day, May 25, 2006.

The details of these events are included in Section 9.0 and 10.0 of this report.

5.1.3 Compliance and Enforcement

The City responded to and documented 79 complaints concerning residential activities during the reporting year. These calls varied in their nature and the action required. The objectives of the City response to these calls were to:

- Return violators to compliance in a timely manner and prevent future violations;
- Educate the residential community;
- Promote compliance of the laws and regulations;
- Initiate and conclude enforcement activities in a timely manner;
- Penalize violators as appropriate, and to deprive violators of any significant benefit gained from violations; and
- Treat residents equally and consistently with regard to the same types of violations.

If a significant and/or immediate threat to water quality was observed, action was taken to require the responsible party to immediately cease the discharge. The typical progressive enforcement steps are:

- Verbal warnings with documentation;
- Written Warning Notices of Violation;
- Cost recovery;
- Administrative citations; and
- Civil and or criminal court actions.

Of the 79 complaints investigated, there were 50 cases opened. In total, there were 64 verbal warnings and 14 formal Notices of Violation (NOV) issued to obtain compliance. Additionally there were 10 private sewer lateral calls which resulted in 2 verbal warnings and 7 NOVs. All enforcement activities have written documentation recorded in case files that include corrective actions and or follow-up actions and correspondence. A summary of these complaint investigations is found in Appendix E-1.

5.2 IMPLEMENTATION PLANS FOR FY 2006-07

The following lists the recommended implementation actions for the residential component for FY 2006-07:

- Continue education and enforcement activities for high priority residential areas and activities
- Conduct outreach campaigns to increase HHW disposal/recycling use and to decrease littering

5.3 REVISIONS TO JURMP

There were no JURMP revisions for the residential component.

6.0 LAND USE FOR NEW DEVELOPMENT & REDEVELOPMENT

6.1 ASSESSMENT OF GENERAL PLAN

The Land Use Element of the Vista General Plan was last updated in 1988 and the Conservation Element was last updated in 1984. As previously reported, the City has been planning to update these elements as part of a larger General Plan Update. This update was originally scheduled to be conducted during the reporting year and completed in 2005. However, due to loss of planning staff and resource limitations to fund such an effort, the City was not able to meet that General Plan update schedule.

At the time of writing, the City has now initiated the General Plan update process and anticipates an adoption date in 2008. The community outreach and EIR processes cause the long-lead time. With that said, the City recognizes the importance of including water quality and watershed protection principles and policies while making land-use decisions. The City through ordinance requires these water quality and watershed protection principles to be implemented in land-use projects as well as larger watershed-level planning. Additionally, the City's planning staff incorporates water quality and watershed protection principles in their projects and their staff reports to the City's Planning Commission. Through these means, the City is meeting the spirit of the Permit by implementing the guiding principles that will be included in the General Plan update.

6.2 DEVELOPMENT PROJECT APPROVAL PROCESS (SUSMP)

Figure 6.1 provides a broad overview of the City Development Project review and Approval Process. Based on this overview, City Stormwater, Planning and Land Development Staff developed a more detailed flow chart as the review relates to and incorporates stormwater pollution prevention principles and requirements. This flowchart is shown in Figure 6.2. This process continues to be iterative with lessons learned and changes in City organizational responsibilities.

The City's SUSMP program has been reviewed by RWQCB staff. At that time, some recommendations were made by RWQCB staff and followed up on by the City. The recommendations are as follows:

- Revise the City's Standards Manual to reflect consistency with the Regional Model SUSMP. In particular the effectiveness table for Treatment Control BMPs had some inconsistencies. The Standards Manual was revised to be consistent with the Regional Model SUSMP.
- Require Site Design and Source Control BMPs per the City's Standards Manual. Staff has been firm with requiring site design and source control BMPs per the Standards Manual. The items are checked on plans as well as within the submitted Stormwater Management Plans.

- Require justification for the Treatment Control BMPs. The City is requiring justification for the selection of Treatment Control BMPs. The project applicants must submit the justification as to why the selected BMP was chosen over higher pollutant removal efficient BMPs. The justification is required in the submitted Stormwater Management Plans.

All of the above recommendations have been implemented by the City.

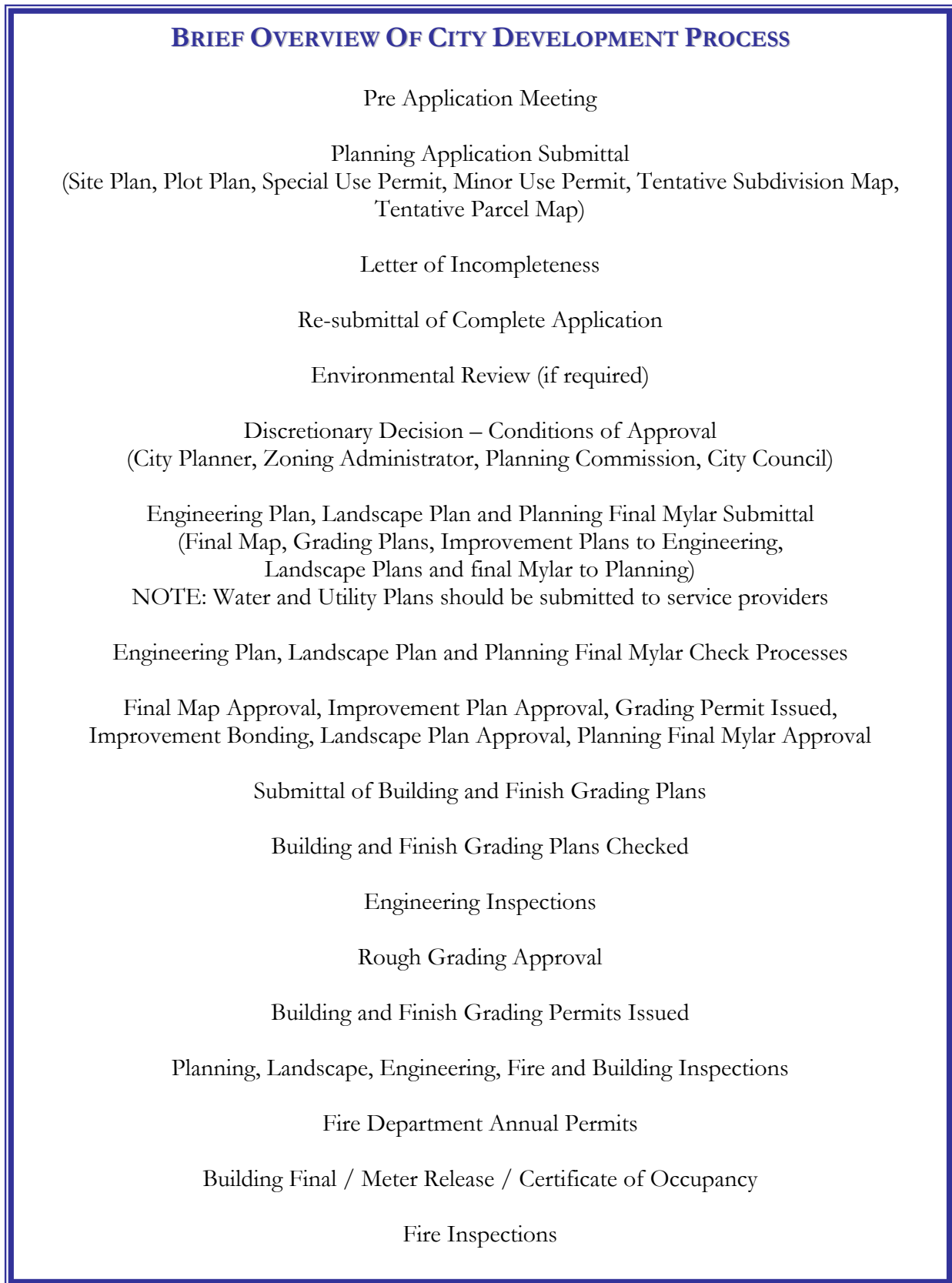
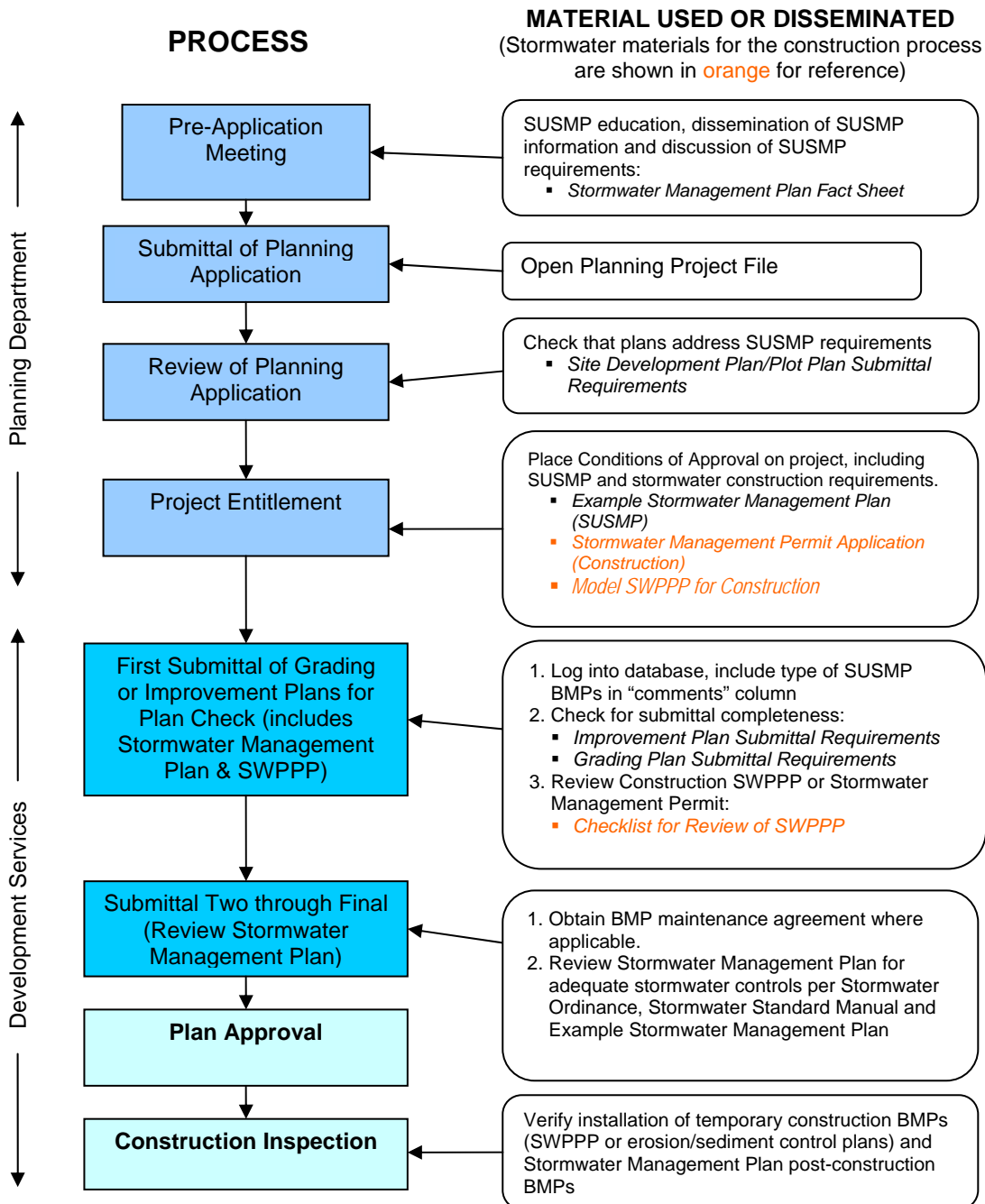
Figure 6.1 City Development Review

Figure 6.2

CITY OF VISTA SUSMP IMPLEMENTATION PROCESS



6.3 DISCRETIONARY PERMIT APPROVAL

The City requires applicants to complete a Stormwater Requirements Applicability Checklist. The checklist helps applicants self-determine whether the project is a priority project that is subject to post-construction BMPs.

During the reporting year, the City issued 18 discretionary permits which included requirements for addressing post construction water quality issues. Table 6.1 summarizes these projects and in general terms the type of permanent BMPs and maintenance mechanisms for addressing long term water quality issues resulting from the development.

6.4 CAPITAL IMPROVEMENT PROJECTS

The City also requires that Capital Improvement Projects (CIPs) adhere to SUSMP requirements. During the reporting period, the City had several projects in various stages of design and construction. The following table lists the CIPs subject to SUSMP requirements and the post construction BMPs incorporated into the projects.

Project	BMPs	Status During Reporting Period
Olive @ VVD	Drainage Inserts	Construction
Business Park @ Palomar Airport Road	Reduction in impervious surface areas and inclusion of a cobblestone infiltration swale	Design – construction in FY 06/07
Brengle Terrace Restroom	Grass lined swale	Design

6.5 REVISIONS TO THE ENVIRONMENTAL REVIEW PROCESS

CEQA review revisions as reported in the City's JURMP continue to be implemented.

6.6 EDUCATION ON NEW DEVELOPMENT AND REDEVELOPMENT

City land development and engineering staff attended several trainings focused on development. These sessions included: (1) a conference focused on post-construction BMPs hosted by StormCon; (2) a public workshop aimed at project developers and contractors; and (3) an internal training session focused on Site Design and Source Control BMPs.

Education efforts with respect to outside contractors and developers continue with one-on-one interactions that are project specific. These efforts include

provisions of materials at the City counter, via email, pre application and/or at pre-con meetings including:

- Applicable sections of the City Stormwater Standards Manual;
- Stormwater Management Plan (SWMP) Requirements;
- Stormwater Management Permit Application and Instructions;
- References and or fact sheets from the CASQA and Caltrans Construction BMP manuals;
- Model SWPPPs (City, BIA, Caltrans); and
- SWRCB General Construction Permit package.

The City posted the City's Standards Manual on its website and frequently refers project proponents to this site.

6.7 IMPLEMENTATION PLANS FOR 2006-07

During the next implementation period the City plans to:

- Work towards the completion of the General Plan Update
- Work collaboratively with other Copermittees to revise and update the SUSMP and the implementation of SUSMP requirements
- Work collaboratively with other Copermittees towards completion of the impending Hydromodification Plan development

6.8 REVISIONS TO JURMP

There were no JURMP revisions for the Land Use Component.

7.0 CONSTRUCTION COMPONENT

The objective of the construction component is to minimize the impacts of construction activities, in particular sediment, on receiving waters within the City of Vista (City). The City's construction component emphasizes pollution prevention during both the preconstruction in the planning and design phases, as well as during the active construction phases of projects.

7.1 SOURCE IDENTIFICATION (CONSTRUCTION INVENTORY)

The City's construction project tracking database lists active construction projects in the City, inclusive of those not necessarily inspected by City inspectors, but tracked due to priority (e.g. public school projects). This database is continuously updated as new projects begin, are completed, and/or as project information changes. At a minimum, the database is updated monthly as inspection staff provides percent completion updates. Due to the dynamics of this tracking system, printouts reflect "snapshots" in time. A copy of the December 2006 inventory is provided in Appendix D-1.

7.2 PROGRAM ACCOMPLISHMENTS

7.2.1 BMP Requirements

7.2.1.1 Pollution Prevention BMPs

The City's JURMP describes a combination of inventory, inspection, education and enforcement to prevent sediment and other construction related pollutants from being discharged off construction sites. In addition to these City actions to prevent pollution, project proponents are required to implement pollution prevention BMPs including a system of erosion control BMPs, their Stormwater Management Permits, and/or SWPPPs that describe the site-specific pollution prevention BMPs, educate workers and subcontractors, and regularly maintain, inspect, and upgrade site BMPs. These minimum pollution prevention BMPs were required during the reporting period as described in the City's Stormwater Ordinance Chapter 13.18.140 and Standards Manual Section F Land Disturbance Activities.

7.2.1.2 BMP Requirements for Construction Sites

Other required BMPs for construction activity are listed in the City's Stormwater Ordinance Chapter 13.18.140 and Standards Manual Section F Land Disturbance Activities, and Stormwater Management Permit. At a minimum these include BMPs from the following categories which were required throughout the reporting period:

- Erosion control;
- Sediment control;
- Tracking control;
- Materials management; and
- Velocity reduction

Specific site conditions dictate the most effective combination of applicable BMPs, but at a minimum the abovementioned BMPs are required to be implemented. At all times, the City has the authority to require additional BMPs as necessary to prevent erosion and discharge of sediments to the maximum extent practicable.

7.2.2 BMP Implementation

During the reporting year, the City required construction projects to utilize a combination of applicable pollution prevention and other site specific BMPs at construction sites. Prior to issuance of grading approvals, project proponents were required to demonstrate via Stormwater Management Permit, SWPPP and/or erosion control plans, that the minimum City required BMPs would be implemented onsite.

During each project's preconstruction meeting, the Water Quality Program Code Compliance Officer or inspection staff reviewed the BMPs and City's expectations for implementation and maintenance with the contractor and/or developer. At the preconstruction meetings, the Water Quality Program Code Compliance Officer provided an informational handout (Appendix D-2). These meetings served as an effective means to not only ensure City minimums are being met, but to educate onsite project proponents regarding the City's seriousness about the issues, resolve potential problems, and answer questions.

After grading begins on a project, City inspectors communicate on an as-needed basis with contractors regarding BMPs along with all other project requirements. Verification of BMP implementation via City inspection reports is discussed in Section 7.2.5.

7.2.3 Ordinance Revisions

No ordinance revisions were made during this reporting year. In the FY02-03 Annual JURMP report, the City reported that it anticipated revising the Grading Ordinance Chapter 17.56 to adopt a revised fee schedule to accommodate changes in the City's plan review process. However, no revisions have been made.

7.2.4 Plan Checks

The City's plan checking process continued to be improved during the reporting period to address water quality issues from projects. Particularly as more projects were required to include permanent site design and treatment control BMPs, plan checking procedures were revised and more review time was required. These efforts have been increasing each reporting year as implementation continues. Specific design requirements were better communicated during the planning phase of projects, which resulted in requirements being imposed during the plan checking process.

The City's stormwater permit applications continued to be used and checked for construction site BMPs in conjunction with site erosion control plans during grading plan submittals. Plan submittal checklists also remain on the City's website - http://www.ci.vista.ca.us/gov/community_dev/info-files2.asp

7.2.5 Inspection of Construction Sites

The Building and Engineering Inspection staffs are responsible for the inspections of construction projects within the City. These inspectors lead the pre-construction meetings for each site during which BMP implementation and maintenance requirements are discussed, as described in Section 7.2.2.

Inspectors typically communicate frequently with developers during the early stages of the project to educate and reinforce site requirements. After BMP installation, inspection staff continues to assess sites with particular attention to BMP maintenance and performance. Inspection staff requires additional meetings onsite as needed, issuing corrective notices, new BMP requirements, and other requirements, using multi-inspector reviews to bring additional experience to the site when necessary. At the time of rough grade release for building permits, sites are reviewed periodically by the engineering inspectors, but primarily come under control of the building inspectors.

Inspection documentation and reporting procedures continued to be improved during the reporting period. Inspections were documented on the City's preprinted construction inspection form. This form continues to be revised for ease of use and clarification (Appendix D-3). Hard copy files for inspections are retained in the project files in the Engineering Department. The City had previously modified its electronic database to collect specific information. The database has been reviewed to determine if additional information is needed for project sites. During the reporting period, no changes were made to the construction database.

During the rainy season of October 1st through April 30th, site reports were generated weekly for high priority sites, and monthly for medium and low priority sites. These reports become the inspection forms used by inspectors when completing their stormwater specific inspections.

During the reporting period, 125 high priority site inspections and 99 medium and 214 low priority site inspections were conducted. Any required follow-up actions were directed to the contractors and followed-up on by the construction inspector. If necessary, enforcement actions were taken which are described below.

7.2.6 Compliance and Enforcement

The following protocol and hierarchy of enforcement actions were established by the City and through the Municipal Code;

- Verbal warnings with documentation;
- Written warning notices of violation;
- Stop Work Orders;
- Suspension, revocation or denial of permits;
- Administrative citations; and
- Civil and or criminal prosecutions.

In general, documented verbal warnings are no longer being used by the City for construction sites. A violation is first issued as a site memo from the inspector and/or Notice of Violation (NOV) from the Code Compliance Officer. This then escalates to stop work order and/or citation and fine.

The City's Engineering Department logged four formal construction complaints during the reporting year. These complaints and/or violations varied in nature ranging from concrete wash down to sediment release. All four of these violators received verbal warnings with documentation and corrective action and or follow-up correspondences; none received formal written notices of violation (NOVs) with required corrective action and time frames, and; none were issued administrative citations with escalating fines. There were no non-compliant sites which posed a threat to human or environmental health.

7.2.8 Training and Education

The City's education efforts with respect to land development and construction were focused on education of internal staff and

inspectors. City staff have attended the following seminars/classes/trainings:

- training for the Building Department Inspectors
- training for the Engineering Inspectors
- Post – Construction Training for Development Staff
- SUSMP Training for Development Staff

Education efforts with respect to outside contractors and developers continue to be focused on one-on-one interactions for specific projects. These efforts include provisions of materials at the City counter, via email, pre application and/or at pre-con meetings including:

- Applicable sections of the City Stormwater Standards Manual;
- Stormwater Management Permit Application and Instructions;
- references and or fact sheets from the CASQA and Caltrans Construction BMP manuals;
- model SWPPPs (City, BIA, Caltrans); and
- SWRCB General Construction Permit package.

The City also participated in hosting two public workshops during the reporting period. More information about these workshops can be found in the Carlsbad WURMP Annual Report.

The City posted the City's Standards manual on its website and frequently refers project proponents to this site.

As a part of the on-going outreach to the construction community, the City supplied rainy season BMP notification to approximately 75 developers and contractors (November 2005), including all of the active construction projects at the time (Appendix D-4).

7.3 IMPLEMENTATION PLANS FOR 2006-07

The following items are anticipated for implementation and/or revision during the next reporting period:

- Finalize and distribute Building Inspector's checklist
- Host a training/informational session for external contractors and developers
- Focused coordination with Building Department
- Enhance the tracking of information (e.g., project priority, etc) between the time of project application and field construction.

7.4 PROPOSED REVISIONS TO JURMP

There were no JURMP revisions for the Construction Component.

8.0 ILLICIT DISCHARGE DETECTION & ELIMINATION COMPONENT

As detailed in the City's JURMP, the objective of this component is to actively seek and eliminate illicit connections and illegal discharges (IC/IDs) into and from the City of Vista's (City) municipal separate storm sewer system (MS4). The following sections describe the City's actions for meeting this objective during the 2005-06 reporting period.

8.1 DRY WEATHER ANALYTICAL MONITORING

This section provides a summary of the dry weather monitoring data for 2006 as well as a discussion about the constituents of concern and probable sources.

8.1.1 2006 Dry Weather Monitoring and Follow-up Investigations

For 2005-06, a total of 30 dry weather sites and seven creek sites were monitored between June 19, 2006 and July 7, 2006. A total of 17 sample results were above the dry weather action levels. These same sites were then re-tested between four hours and twenty-four hours later. Sites which had elevated concentrations above action levels during initial field testing are listed in Table 8.1. The complete results and discussion of these monitoring efforts are included in the City's 2006 Dry Weather Monitoring Report (Appendix E-2).

Table 8.1. Sites exceeding field parameter action levels

	Analyte in which concentration was above the dry weather action level				
	Nitrate	Ammonia	Phosphate	MBAS	Temperature/ pH
Field Station	AH-8 AH-8A BV-19	SS-1 G-3 G-4 MV-2	G-4 MV-2	BV-1 G-4	BV-14 BV-25

Three dry weather sites had nitrate levels above the dry weather action level. Four sites had elevated ammonia concentrations. Sites G-4 and MV-2 were the only sites with phosphate concentrations above the action level. Sites BV-1 and G-4 had concentrations of detergents (MBAS) above the dry weather action level. Elevated levels of Temperature/pH at sites BV-14 and BV-25 were likely a result of shallow flow in conveyances near the street level and ponded conditions, respectively.

Sites were selected for IC/ID investigation if action levels were exceeded for the same constituent on initial and subsequent follow-up visits. IC/ID investigations were conducted at nine sites, which also included creek sites originally tested to help assess dry weather baseline water quality conditions. During the IC/ID investigations, field samples were collected upstream of the site in question until either a source of contamination could be identified or until the stream of water could no longer be followed.

Two illicit discharges were identified and eliminated. All other sources appeared to be naturally occurring groundwater and over-irrigation runoff. The details of these investigations are found in the complete report located in Appendix E-2.

8.1.2 Constituents of Concern

The 2006 Dry Weather Monitoring Program found relatively few indications of illegal discharges to the City of Vista's storm water conveyance system. The most prevalent contaminants detected during the field screening investigations were nitrate, ammonia, and MBAS.

The data from the dry weather monitoring and follow-up investigations are used to identify constituents of concern (COCs) in Vista. The City uses this information to help identify potential sources in order to target compliance and education efforts to eliminate or reduce the constituents of concern. This activity is part of a strategy to help assess the effectiveness of the City's stormwater program and assist in the future planning and implementation efforts by the City and those operating within its jurisdiction.

Based on the dry weather data, the City has identified nitrates and trash as the constituents of concern within the jurisdiction:

Ammonia and phosphorus were found above the action level at a few sites, but these exceedances were minor. While most sites were below the action level for ammonia, results are showing an increasing trend in ammonia in the Guajome subwatershed. Therefore, ammonia and phosphorus will be addressed with nitrate for issues related to landscape maintenance, nurseries/agriculture activities, and irrigation runoff.

Trash was observed at many sites. Some of these locations are private property. The City will work to routinely clean the public property sites and require cleanup by property owners for the private sites.

All samples analyzed were below action levels for pesticides (Diazinon & Chlorpyrifos), Oil & Grease, metals (dissolved cadmium, copper, lead, and zinc), and enterococcus.

Observed discharges were primarily associated with irrigation runoff or naturally occurring groundwater flows near residential and commercial properties and at illicit discharges that were identified and eliminated during the course of IC/ID investigations.

8.2 IC/ID INVESTIGATIONS, INSPECTIONS, FOLLOW-UP AND ENFORCEMENT

During the reporting year, the City responded to complaints and/or observed IC/IDs in accordance with procedures detailed in the City's JURMP and revised response procedures. All reported IC/IDs were logged electronically and responded to by the Stormwater Code Compliance officer, who is responsible for follow-up investigations of these situations. In the event this officer was not available, the City continued to utilize the trained Engineering staff to respond to IC/IDs.

During 2005-06, a total of 210 investigations related to stormwater or urban runoff discharges or potential discharges were received and logged by the City. Table 8.2 summarizes the nature of these situations and the number of enforcement actions conducted for these complaints. This amounted to the issuance of over 206 enforcement actions to obtain compliance. When necessary, multiple actions or escalated enforcement actions were issued.

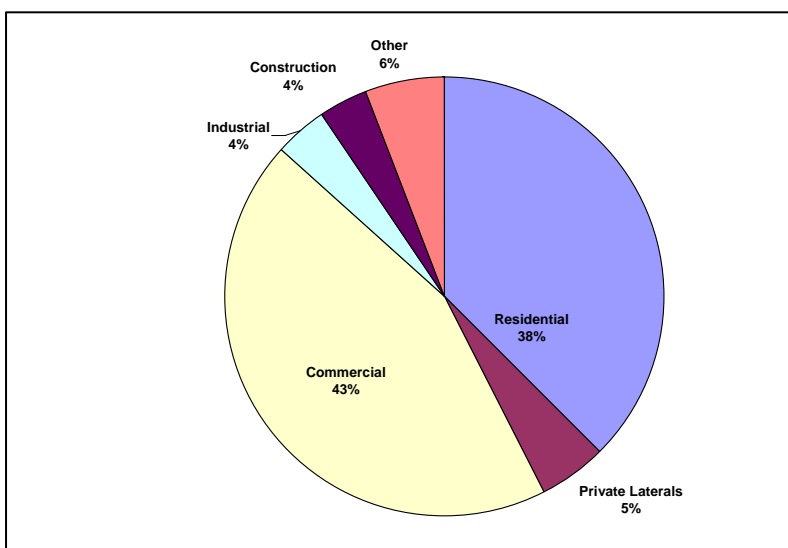
Table 8.2 Complaint Investigation Enforcement Summary

Calls and Complaints		Enforcement Action		
Type	Quantity	Verbal Warning	Written Warning NOV	Administrative Citation/Fine*
Residential	79	64	14	0
Private Laterals	10	2	7	0
Commercial	93	41	46	8
Industrial	8	3	3	2
Construction	8	6	1	0
Municipal	2	1	0	0
Other	12	5	3	1
Total	210	121	74	11

* No. of sites issued citations. Does not include multiple, sequentially issued citations to the same site for a repeated violation.

Figure 8.1. Stormwater Complaints by Source Type

Figure 8.1 shows the distribution based on the source of the potential IC/ID investigation that the City responded to during the reporting period. Appendix E-1 provides more detail as to the location, nature, follow-up and enforcement for each case logged and



responded to by the City.

There was a higher percentage of commercial investigations during 2005-06 than the previous year. This was likely due to the increased number of commercial inspections and follow-up compliance inspections conducted by the City. During 2005-06, the City inspected all identified restaurants, automotive facilities, nurseries and greenhouses.

8.3 PREVENTION AND RESPONSE TO SEWAGE AND OTHER SPILLS

As described in the City's JURMP, the City has established procedures for preventing, responding to, containing, and cleaning up all sewage and other spills that have the potential to discharge to the MS4 from any source.

In most cases, sewage and other spills reaching the MS4 are observed and reported by residents and/or City field staff. The City's Engineering and Public Works staff are responsible for responding to sewer spill calls. City staff follows a set protocol for all sewage spills outlined in the City's Sanitary Sewer Overflow Prevention and Response Plan (SSORP) in accordance with Order 96-04. RWQCB Order No. 96-04 establishes minimum standards for municipalities and agencies that are responsible for sewage collection in responding to sewage releases. City staff must implement the following remedial actions, to the extent that they are applicable to the discharge:

- Interception and re-routing of sewage flows around the sewage line failure;
- Vacuum truck recovery of sanitary sewer overflows and wash down water;
- Use of portable aerators where complete recovery of the sanitary sewer overflows is not practicable and where severe oxygen depletion in existing surface waters is expected; and
- Cleanup of debris of sewage origin at the overflow site.

During the reporting period, the City's wastewater crew responded to and reported 17 sewer spills which resulted in approximately 17,429 gallons of sewage released from the collection system. Of the 17 spills, approximately 10% of the sewage spilled was recovered, resulting in approximately 16,000 gallons released to the environment. Nearly all of the sewage spills were caused by either construction activities or vandalism.

The City's Engineering and Public Works departments continue to collaborate to improve spill response procedures with respect to private lateral spills. Since the City is not authorized to work on private property per the City's Municipal Code nor does the City possess the equipment to maintain these small lines, property owners are responsible for lateral maintenance up to the point of connection to the City's main collection pipelines. The City's spill response procedure requires designated City staff to contact a plumber or other professional contractor when

a resident refuses to and/or is not available to authorize the work. The City has also received permission from the water purveyor, Vista Irrigation District, to shutoff water supply in the event of non compliance by the owner. The City still collects spilled sewage until the problem is corrected. Following the incident, the City then pursues cost recovery and enforcement action.

With the adoption of the new Statewide Permit for Sanitary Sewer Systems, the City will be developing a sanitary sewer plan that will require updates to the existing Sanitary Sewer Overflow Response Plan. The City will also be developing a Fats, Oils & Grease (FOG) Program that will include residential education and restaurant inspections. Planning of the FOG Program will begin in FY 06-07.

8.4 DISPOSAL OF USED OIL AND TOXIC MATERIALS

The Household Hazardous Waste (HHW) Collection and Recycling Facility in Vista is open to residents every Saturday from 9:00 a.m. to 3:00 p.m. This facility accepts all types of HHW, including waste oil. Residents are encouraged to use this facility for used oil and other toxic materials. Printed materials and website information advertise the facility location and hours of operation in order to facilitate proper waste recycling and disposal procedures by Vista residents.

If desired, residents can also call for curbside pickup of their HHW. Table 8.3 summarizes the estimated quantities picked up from Vista residents.

Table 8.3 Amounts of HHW picked up from Vista residents.

HHW Material		Pounds
Flammable & Poison	Flammable solid/liquid	306
	Oil-base paint	171
	Poison (excl. aerosols)	277
Acid	Organic and Inorganic acid	40
Base	Organic and Inorganic base	38
Oxidizers		0
PCB-containing	Other PCB waste	0
Reclaimable	Antifreeze	14
	Car batteries	2
	Latex paint	2,240
	Motor oil/oil products	14
Aerosol Containers	Flammable aerosols	145
Other	Other	313
Total		3,560

During 2005-06, approximately 210,049 pounds of HHW was dropped off by Vista residents. This is summarized in Table 8.4.

Table 8.4 Estimated amounts of HHW dropped off by Vista residents

HHW Material		Pounds
Flammable & Poison	Flammable solid/liquid	22,945
	Bulked flammable liquids	17,867
	Oil-base paint	20,600
	Poison (excl. aerosols)	9,149
Acid	Inorganic and organic acid	6,970
Base	Inorganic and organic base	1,511
Oxidizer	Neutral oxidizers, organic peroxides, oxidizing acid and base	532
PCB-containing	Other PCB waste	13
Reclaimable	Antifreeze	2,923
	Car batteries	9,063
	Latex paint	16,571
	Motor oil/oil products	12,986
	Oil filters	619
Asbestos		834
Universal Waste	Mercury containing waste	6
	Thermostats / switches / thermometers	9
	Lamps	452
	Household batteries	1,230
Electronic Waste	SB20/50 video display devices	16,477
	Non SB20/50 video display devices	6,792
	Consumer electronic devices	15,543
Aerosol Containers	Non-empty aerosol containers	5,251
Other HHW	Compressed gas cylinder	981
	Treated wood	691
	Other	11,734
Total		210,049

Vista resident use of HHW collection has steadily increased from FY 02 to present, as shown Table 8.5.

Table 8.5: Number of Vista resident cars

	FY 02	FY 03	FY 04	FY 05	FY 06
# cars	1827	1860	2059	2252	2814
Home pickup	7	16	22	30	30

Home pickup has only increased slightly, possibly due to the fact that Vista has an HHW collection site in its jurisdiction, making drop-off for residents convenient and free.

The City contracted with Solana Center for Environmental Innovation (Solana Center) to help increase recycling of used oil recycling and filters. Two events were conducted in collaboration with auto parts stores to promote recycling. The

April and June events were advertised in newspapers and fliers, encouraging people to bring in their used oil filter and receive a new one in exchange. Ninety-one people attended these events and 163 used oil filters were collected for recycling.

Solana Center was also contracted to give educational presentations to vocational and high school auto shops on oil recycling and compliance. Six presentations were given at Vista High School and 3 were given at Vista Adult education, resulting in 245 students receiving presentations.

Vista also continued to work with the ten certified collection centers in Vista. During the reporting period, these centers collected 12,249 gallons of oil and 1,884 used oil filters from do-it-yourselfers.

8.5 IMPLEMENTATION PLANS FOR FY 2006-07

A main focus during FY 2006-07 will be the City's development of plans and programs to comply with the Statewide General Waste Discharge Requirements for Wastewater Collection Agencies. This will include beginning the development of a FOG program to reduce wastewater overflows caused by blockages in private and public sewer lines, as well as improved maintenance programs.

It is also anticipated that the dry weather monitoring sites will be re-evaluated to ensure that they are in locations that best represent the City's storm drain system. This will occur with the completion of GIS storm drain system maps, which will also aid in follow-up investigations.

The City will continue to focus compliance efforts on repeat violators as well as focusing on sources and methods to reduce the identified constituents of concern.

8.6 REVISIONS TO JURMP

There were no JURMP revisions for the Illicit Discharge Detection and Elimination Component.

9.0 EDUCATION COMPONENT

As described in the City's JURMP, the overall objectives of the City's educational element are as follows:

- To measurably increase the knowledge of target communities regarding municipal separate storm sewers systems (MS4s), impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and
- To change the behavior of target communities and thereby reduce pollutants into the MS4s and environment over the five-year cycle of Order 2001-01 permit.

During this reporting period, education remained as one of the top priorities of the City's stormwater efforts. These efforts are detailed below in Section 9.2.

9.1 PROGRAM CONTENT

Section 9.0 of the City's JURMP provides details and a summary table regarding the educational program content targeted at the specific audiences. These target audiences/communities include:

- Municipal departments & personnel;
- Industrial owners & operators;
- Commercial owners & operators;
- Residents and the general public;
- School children;
- Developers & construction contractors; and
- Quasi-governmental agencies.

The City has continued to focus efforts on disseminating general stormwater pollution prevention information to its municipal personnel and the entire community. The educational material developed by the City is consistent with that being disseminated by the other Copermittees in San Diego County and particularly in the two watersheds in which Vista is located (San Luis Rey River and Carlsbad). Since many of the City's residents cross jurisdictional boundaries on a daily basis for work, business, travel, recreation, and/or education, and many of the City's employees live in other cities and areas, it is essential that the community understands that this is a region wide effort and that Order 2001-01 applies to everyone residing and working in the San Diego County.

9.2 PROGRAM ACCOMPLISHMENTS

During this reporting period, the City continued to implement education programs and outreach to target audiences. One focus was the education program to residents and school children. One-on-one interactions and

education among internal municipal staff, businesses, developers, contractors and residents also continued as a primary mechanism for increasing knowledge in hopes of producing behavior change.

9.2.1 Municipal Departments and Personnel Workshops & Training

City staff training was conducted for many departments during this reporting period. City staff also attended and participated in a variety of external and other professional training activities. These activities are summarized in Table 9.1 below.

In addition to specific activity stormwater training, the presentations addressed residential activities and BMPs so that City municipal staff was educated not only as City employees responsible for compliance with Order 2001-01, but as residents in the San Diego County region responsible for water quality.

Table 9.1 2005-06 City Staff Workshops and Training

Department or Division	Training Date
Code Enforcement	June 27, 2006
Public Works – Sewer Maintenance	February 15, 2006
Public Works – Streets Maintenance	March 1, 2006
Fire Department Training	May - June 2006
Land Development Training	Various external conferences
Building Department Training	March 27, 2006
Parks Training	April 4, 2006
Stormwater Program	Various external conferences
Engineering Inspectors Training	May 11, 2006

City Newsletter

The City publishes a weekly newsletter that is distributed Citywide to all staff via email. The following Newsletter articles were presented:

- Advertisement for the September 17, 2005 Buena Vista Creek Cleanup as part of the Coastal Cleanup Day Regional Event.
- Advertisement for the April 29, 2006 Agua Hedionda Creek Cleanup

9.2.2 Residents and General Public

Brochures/Printed Materials

The City continued to distribute existing publications and to create and collaborate on new residential educational material through the Carlsbad and San Luis Rey Watershed efforts. One new product developed during this reporting period was a pledge card that residents could use as a self-commitment and reminder to adopt non-polluting behaviors.

Help Protect our Watersheds from Pollution! Mark the actions you will take to help reduce pollution entering our waterways, then sign the pledge. Post this card somewhere visible to remind yourself of this pledge.

I pledge to:

- ☐ Throw my garbage into a trash can, instead of littering
- ☐ Only water my plants, not my driveway, sidewalk and street
- ☐ Report polluting activity to my local City
- ☐ Throw pet waste into a trash can or toilet
- ☐ Participate in community cleanup event
- ☐ Reduce fertilizers and pesticide use by following manufacturers instructions

YOU ARE THE SOLUTION TO WATER POLLUTION!!!

I, _____, promise to help protect my local watershed by doing the above activities.

Signed _____ Date _____

NORTH COUNTY STORM WATER PROGRAM

Cities of:
 Carlsbad Del Mar Encinitas Escondido Oceanside
 Poway San Marcos Solana Beach Vista
 County of San Diego

PROTECT OUR WATERSHEDS

Every year, millions of pounds of pollutants are dumped into our precious creeks, rivers, lakes, lagoons and ocean water through the storm drains in our streets and parking lots.

BUT YOU CAN HELP!

Pledge to do your part in protecting our watersheds from urban runoff pollution.

NORTH COUNTY STORM WATER PROGRAM

to report a violation call:
1-800-846-0800
www.projectcleanwater.org

Would you like to be informed of upcoming cleanup activities in your community? Please fill out the information below:

Name: _____

Address: _____

Email Address: _____

For City Use Only:

Jurisdiction/Watershed: _____

Event: _____

Date: _____

The front of the card allowed the resident to be included on mailing lists for future cleanup activities.

Another focus during this reporting period was proper pet waste disposal. Vista created and installed signage at Brengle Terrace, South Buena Vista, Buena Vista, and Thibodo Parks, which are also equipped with Doggi-pot bag dispensers. The City also created and distributed magnets for Vista's "Pet Poop Pollutes" campaign.

Calls and Complaint Response

The City continued its educational efforts with one-on-one interactions triggered by complaints and/or situations in the field. A summary of complaints is included in Section 8.0 and Appendix E-1. Printed material is distributed to the violator along with verbal communication addressing the violation and necessary corrective actions. During this reporting period, the Stormwater Code Enforcement Officer distributed over 250 brochures and booklets to residents in response to complaint investigations or conditions observed in the field.

Stormwater Hotlines

The City's local stormwater hotline (760) 726-1340 ext.1686 and 1698 provides information to callers in English and Spanish, respectively. These numbers provide a 24-hour voicemail to the public and are checked daily between the City's operating hours of 7:30 a.m. to 5:30 p.m., Monday through Friday. These numbers are beginning to gain popularity as residents become increasingly aware of storm water issues. These numbers are posted on the City's website and are being included on all printed educational information. During this reporting period, the hotline was also advertised in the City Stormwater Newsletter and on other promotional items.

There are also currently two regional stormwater hotline numbers promoted within San Diego County; a toll-free Regional Stormwater Hotline, 1-888-846-0800 and the Think Blue Hotline, 1-888-THINK Blue (1-888-844-6525). Both of these hotlines are staffed by the County of San Diego, Monday through Friday, 8:00 a.m. to 5:00 p.m. County staff refers calls to appropriate cities, as applicable. In addition to personal service at these hotlines, during regular business hours, the hotlines provide a voice mail message for 24-hour public access.

Community Events

The City participated in two regional stormwater informational booths during the reporting period. On April 2, 2006, the City staffed a booth for the Pepper Tree Day Earth Fair hosted at the Mission San Luis Rey, and on April 23, 2006 the City staffed a booth at the Avocado Day Festival in Fallbrook. Both booths displayed the watershed model, to provide the public a visual demonstration of the causes and effects of urban runoff, and literature for residents to take home regarding BMPs to reduce or eliminate storm water pollutants.

The City's annual Public Works Day, held on May 25, 2006 included stormwater education material and demonstrations. The Engineering Department sponsored a booth which included presentations of the EnviroScape® model to attendees which included: City staff; members of the community; and several school classes. Approximately 300 people attended.

Furthermore, the City sponsored three creek clean-up events. The first was a coordinated tri-city cleanup effort of Buena Vista Creek on September 17, 2005 with over 140 participants. The second was a December 10, 2005 cleanup along Buena Creek with about 100 boy scouts and adults. The third was a multi-site cleanup of Agua Hedionda Creek held on April 29, 2006 with approximately 70 people participating at three sites.

Municipal Facilities / Public Lobbies

Printed educational brochures have been disseminated at several City facilities visited regularly by the public including City Hall, City Public Works and Engineering lobbies. Additionally, several of the City's field staff carry the informational brochures and door hangers in their vehicles and distribute them as needed or appropriate when they are out in the community.

City of Vista Website

During the reporting period the City completed an update of its website which is located at www.cityofvista.com or www.ci.vista.ca.us to include more stormwater pollution prevention information and additional helpful links to website users. The website now provides access to the City's Municipal Code which contains both updated grading and stormwater ordinances. The website also provides phone numbers for stormwater, storm drain, and household hazardous waste contacts; provides PDF versions of all educational literature and includes expanded informational sections on construction, industrial and residential BMPs, permits, etc.

The City plans to continue enhancing the website as new materials are developed and introduced.

9.2.3 Students and School Personnel

The City's stormwater education program actively pursued outreach to Vista schools during the reporting period. A total of 65 presentations were conducted, reaching 1543 students. Each presentation included a demonstration using the Enviroscope® Model, as well as an Eco Quiz, and discussion of household BMPs to prevent storm water pollution. Each classroom was provided with a watershed poster, guides to household hazardous waste (English and Spanish), and a recycling guide. The students were given three pledge cards to sign and take home with them. These pledge cards were created during the fiscal year as part of a North County Storm Water Program education activity.

In addition, the City of Vista worked closely with the Vista High School Auto Shop program and an automotive vocational program, which uses Vista High School's Auto Shop facilities after hours, to conduct a series of presentations on environmental laws and storm water pollution prevention. Approximately 245 students attended the 9 presentations.

9.2.4 Industrial and Commercial Business Owners and Operators

During this reporting period, the City continued to distribute informational brochures to business owners and operators during stormwater inspections and enforcement activities. The general business brochure

contains information regarding the City's Municipal Code requirements and Best Management Practices to be implemented at businesses.

As part of the industrial and commercial inspection program, facilities were provided information using a variety of education mechanisms. Initially, to inform facility managers/owners of the upcoming inspections, an educational letter was sent. Education was also provided during the inspection itself on a one-on-one basis. Further education occurred if a follow-up inspection was required. During each education interaction, businesses were provided with information regarding the stormwater program goals, regulations and BMP expectations.

The City distributed specific educational material for commercial and industrial facilities during inspections. The following table shows the number and type of information distributed. Copies of these items have been submitted with previous annual reports.

Table 9.2 Business Educational Material Distributed

Educational Material	# Distributed
Green Wrench Guide (Automotive Brochure)	46
What's Cookin' (Restaurant Brochure)	53
"Storm Water Protection Is In Good Hands...Yours" (Automotive Poster)	88
"Storm Water Protection Is In Good Hands...Yours" (Restaurant Poster)	196
City of Vista Tri-Fold BMP handout	3
Household Hazardous Waste Guide	1
Industrial Permit packet	11
NOI handout	11
Industrial Permit exemption handout	9
NONA/NEC forms	9

Additionally, the Code Enforcement Officer distributed over 50 business related handouts on stormwater BMPs and pollution prevention to businesses during inspections or other compliance activities.

As part of the local watershed education effort, the City of Vista participated as a speaker in an environmental compliance seminar for

restaurant facilities. The seminar was held on May 16, 2006, in conjunction with the County of San Diego's Green Business Program and the North County Storm Water Program.

In an effort to reach as many businesses as possible, the City updated and inserted an English/Spanish Stormwater Requirements flier into every business license renewal notice (approximately 8000). The flier notified businesses of their responsibilities to eliminate and/or reduce storm water pollution, as well as information to industrial businesses concerning the State Storm Water Permit.

9.2.5 Developers and Construction Contractors

Education efforts for this target audience are discussed in Section 6.5 (Land Use for New Development & Redevelopment) and in Section 7.2 (Construction Component). During the reporting year, education efforts consisted mainly of individual interactions with contractors and/or developers and City staff either through counter interaction or attendance at all pre-construction (pre-con) meetings. The City's Stormwater Standards Manual and Stormwater Ordinance which include requirements for construction BMPs and post-construction BMPs were distributed through the Engineering and Planning department staffs in the latter part of the reporting year. The Construction BMP brochure was also provided at the permits counter and distributed at pre-con meetings.

The City sent out a special mailing in October 2005 to over 75 developers/owners and construction companies reminding them to prepare for the rainy season and increase erosion, sediment, and materials management control measures. A copy of this letter regarding rainy season requirements is in Appendix D-4.

Additionally, the City spearheaded two public workshops, held on May 18, 2006 and June 1, 2006, to educate North County developers, engineers and landscape architects about post-construction BMP requirements and design. Between the two presentations, approximately 150 local developers and engineers attended.

Educational stormwater information was also provided at every pre-con meeting by the Stormwater Code Enforcement Officer or Engineering Inspections staff.

9.2.6 Quasi-governmental Agencies

The City continued to participate in monthly meeting with its local utilities (i.e. Vista Irrigation District, SDGE, Cox, PacBell). In addition, the City

worked closely with the Vista Unified School District maintenance staff on educational and compliance issues and pursued better collaboration with Vista Irrigation District on water conservation and related education.

9.3 WATERSHED ACTIVITIES

The cities of Carlsbad, Del Mar, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach and Vista along with the County of San Diego continued working together as the North County Storm Water Programs (NCSWP). In collaboration with outside environmental organizations and watershed stakeholders, the NCSWP produced materials and implemented watershed and storm water pollution prevention education campaigns on a watershed level. During this reporting period, Vista served as the lead for the NCSWP. All Watershed Copermittees attended the NCSWP meetings and participated actively. During the 2005-2006 reporting period, the NCSWP was highly successful at completing many cost-effective tasks in a timely manner, including:

- Development of a Pledge Card for the general public;
- Joint informational booths at the Flower Fields Kids Day event, Pepper Tree Earth Day event, and the Avocado Day event;
- Watershed-wide creek cleanup events;
- Conducting small surveys of general public storm water awareness;
- Hosting an environmental compliance workshop for restaurant facilities;
- Hosting two post-construction BMP requirement workshops; and
- The development and submission of multiple grant applications for projects ranging from watershed management plans, to classroom educational programs.

These activities are detailed in the respective Watershed Urban Runoff Management Program Annual Reports.

9.4 REGIONAL ACTIVITIES

The City participated in regional education activities through participation and collaborative efforts with the other Copermittees and the Project Clean Water Outreach and Education technical workgroup. This group met regularly throughout the reporting year and developed Copermittee activities to be implemented in the following permit year, including participation in the Think Blue campaign, speaker's bureau for commercial and industrial facilities, and the integrated pest management program. The activities performed by the Regional Outreach and Education workgroup are described in the Unified Jurisdictional URMP Annual Report.

9.5 IMPLEMENTATION PLANS FOR 2006-07

The City plans to continue its efforts to disseminate materials created at the local, watershed and regional levels. Vista will assess the need for concise and activity-based education materials, and will develop and distribute these as needed.

To improve education to industrial and commercial facilities, the City plans to continue distributing information through the business license department and one-on-one during inspections.

Students will continue to be another area of focus this coming year, as classroom presentations will continue and some new programs will be explored.

9.6 REVISIONS TO THE JURMP

There were no JURMP revisions for the Education Component.

10.0 PUBLIC PARTICIPATION

As a municipal government agency, one of the City of Vista's primary missions is to serve its public and thus, their participation is consistently welcomed and encouraged. As a service to its community, City staff regularly seeks opportunities to facilitate and encourage public participation through both formal and informal interactions. With respect to urban runoff and pollution prevention, the City anticipates this participation to increase as the education and awareness of its community increases and the City's program evolves.

The formal public participation mechanisms used by the City include public meetings, commissions, community groups, and public events. The public participation opportunities provided during the 2005-06 reporting period are discussed below.

10.1 PROGRAM ACCOMPLISHMENTS

10.1.1 Public Meetings/Notifications for Municipal Code Revisions

There were no municipal code revisions or public meetings held specifically for stormwater pollution prevention during the reporting period. However, storm water program items are typically on the City Council agenda as resolutions are adopted or consultant contracts amended. These council meetings, held on the second and fourth Tuesday of each month, provide an opportunity for anyone from the public to address the elected officials on any stormwater related issues.

10.1.2 Beautification and Improvement Commission

The City's Beautification and Improvement Commission (BIC) is comprised of representatives from the community, City Staff and a City Council person. The BIC deals with a broad range of environmentally-related issues to encourage public citizen involvement. Issues that the BIC is charged with include neighborhood beautification, public area enhancements, recycling promotion, and storm water runoff.

Commission members and City staff continued to coordinate with volunteers to conduct cleanup events during the reporting year. The City was successful at drawing attention to the Agua Hedionda watershed. Cleanup events were held to engage the public and show the need for improvements to the local creeks and watershed. The City also pursued various grants to address these issues. A copy of a newspaper article highlighting these activities and the community's involvement is in Appendix F-1.

10.1.3 Education

The public participation component is largely linked to the City's education component. The City's focus has been to educate the community on stormwater regulations; on the degradation of water quality and the practices that are causing polluted urban runoff; and on the best management practices (BMPs) that can be implemented to minimize pollution of runoff and receiving waters.

As discussed in Section 9.0, the City education efforts during this year focused on disseminating general stormwater information using a variety of mechanisms including distributing printed material; conducting workshops; sponsoring community events; and interacting with City staff and the public. By providing various forms and forums for education and involvement, it is the City's intent to increase participation and community ownership in the implementation of the JURMP in the following reporting years.

During 2005-06, the City expanded its cleanup efforts to include more sites. In addition, local neighborhood cleanup events will occur when community groups show interest.

10.1.4 Public Outreach and Contact Information

One of the key components of the City's education materials is promotion of City contact phone numbers. The City's stormwater and sanitary sewer system hotlines are also posted on the City's website. The public is encouraged to call and report observed violations and/or to inquire about the "do's" and "don'ts" of the MS4 system. City staff are committed to responding and following up on all calls and complaints in a timely manner.

The City has also improved its advertisement and education for the Household Hazardous Waste Collection Facility. Printed materials, including the Stormwater Newsletter and presentations describe the services at this facility. The location, phone number and hours of operation are included on all printed materials. By encouraging the public's proper disposal of these materials, the City hopes less illegally disposed materials will end up in local waterbodies.

10.1.5 Community Activities

Community activities provide for two-way discussions of stormwater activities. They include booths at public events, presentations at public and community meetings, and community improvement events (cleanups, stenciling events, etc.). During the reporting year, the City participated in several community events including the following:

- Tri-City Buena Vista Creek Cleanup, September 2005;
- Buena Creek Cleanup, December 2005;
- Agua Hedionda Creek Cleanup, April 2006;
- Pepper Tree Day Earth Fair, April 2006;
- Avocado Day Festival, April 2006; and
- City of Vista Public Works Day May 2006.

At each of these events, City staff interacted with the public by providing printed materials and discussing stormwater issues. Participants were encouraged to ask questions and provide feedback. A more detailed description of these activities is provided in Section 9 of this report.



10.1.6 Website

During this reporting period, the City's website was expanded to provide more information to the public and to provide easier access to the information that is currently on the website. The improvements focused on expanding public exposure to the Stormwater Hotline to increase public participation. The website was also upgraded to advertise community events including stormwater events, such as the Creek Cleanups, and Peppertree Earth day Event.

10.1.7 Watershed

The City is an active participant in both the Carlsbad and San Luis Rey River Watershed public participation activities. This includes participation in the Carlsbad Watershed Network (CWN), comprised of a variety of stakeholders including representatives from other municipalities in the watershed, environmental organizations, conservancies, academia, the Regional Water Quality Control Board, and other members of the public. City staff attended monthly CWN meetings when possible.

10.1.8 Regulated Community

Many of the Permit, JURMP, and ordinance requirements require the community's participation on various and overlapping levels. Participation by the public in the implementation of the JURMP occurs through the various components of the City's program. Personal interaction with City staff occurs through education, inspection, and enforcement activities. During these

interactions, the public is encouraged to engage in dialogue, ask questions, and provide required response to situations, as needed.

10.2 IMPLEMENTATION PLANS FOR 2005-06

During the next implementation period, the City plans to continue using the public participation mechanisms discussed above and add new opportunities for input. Two new additions the City plans to pursue are as follows:

- Work with Guajome Park Academy and Communities Alive in Nature Education Program to develop a bioassessment study program for grades 6-12;
- Lead the development of a State Grant funded Agua Hedionda Watershed Management Plan, and seek community participation and input through the formation of a Watershed Planning Group.

10.3 REVISIONS TO JURMP

There were no JURMP revisions for the Public Participation Component.

11.0 ASSESSMENT OF JURMP EFFECTIVENESS

In accordance with Order 2001-01 Section F.7, the City is required to develop and implement a long-term strategy for assessing the effectiveness of its JURMP. The original strategy, developed as a model for the Copermittees and used in Vista's JURMP, consisted of tracking program activities for each component and providing a qualitative summary of major accomplishments within each component. This strategy was not acceptable to the RWQCB and the Copermittees were asked to develop a new strategy. The new strategy, "A Framework for Assessing the Effectiveness of Jurisdictional Urban Runoff Management Programs" (Framework), was completed and presented to the RWQCB in October 2003 and is discussed in more detail in the Unified JURMP annual report of 2003-2004.

The current assessment strategy focuses on activity tracking and subjectively reflecting on the strengths and needed improvements for each program component, which is identified as Level 1: Compliance with Activity-Based Permit Requirements in the model assessment strategy. The discussion following each of the components includes a narrative of strengths and improvement needs, as well as discussion of Level 1 activities, and Level 2 and 3 assessments (Changes in Knowledge and Awareness and Behavioral Change/BMP Implementation, respectively) where available. There are a few areas in which the City can conduct Level 4 assessments (Load reductions), but it is believed that this will be most meaningful and comparable when the Copermittees collaboratively agree on standardized assumptions and calculations for load reductions. While the City would like to conduct Level 5: Changes in Discharge Quality and Level 6: Changes in Receiving Water Quality assessment, there are currently too few data points to make valid statistical trend assessments. This is currently best assessed at the watershed level where more data exist to determine water quality trends on a larger scale.

11.1 REVISED ASSESSMENT STRATEGY

The City of Vista began utilizing the Framework for its JURMP assessment. This framework provides guidance that the City will use to move from a permit-compliance-driven programmatic implementation strategy to one which focuses on the ultimate goal of reducing pollutants and improving water quality.

During past reporting periods, the City identified (1) sources as defined by the permit through the various component inventories, (2) the assumed pollutants generated from them; and, (3) applicable BMPs based on "industry standards." However, as the City looks more closely at the main pollutants or constituents of concern (COCs) within its jurisdiction and as part of the watersheds it shares, these pollutant sources can be better identified.

As discussed in Section 8 of this document, an assessment of the dry weather water quality data collected over the last few years indicates that Vista's COCs

include nitrates and trash. The Watershed high priority constituents of concern collected primarily from wet weather data include bacteria and sediment.

Assessing water quality and program outcomes is part of the iterative process of program planning and BMP implementation. Identifying the constituents of concern causes the City to examine the potential sources of these constituents, determine BMPs to reduce the constituents, select activities with targeted outcomes, and to measure program results. The City will continue to use and refine this process in order to plan and implement effective activities to reduce the constituents of concern.

11.2 PROGRAM ASSESSMENT

Following is the program assessment for the FY 05-06 reporting period. Each JURMP component is addressed and includes a narrative of program strengths and FY 06-07 focus areas to build on program successes. The Level 1 compliance activities are summarized below and detailed in each report section. Any level 2 and 3 assessments are also included with the applicable component discussion below. Due to the lack of regionally standardized accurate load reduction estimating tools and methods, only limited load reductions (level 4) have been assessed for the program. At this time the City does not have the means to accomplish load reductions beyond the collected information directly related to physical removal of materials (e.g., debris, sediments, etc.). As regional standards are developed, the City will participate in collection of standardized information and perform further load reduction estimates. The load reduction information available is summarized below and in the applicable report section.

11.2.1 Municipal

Program Strengths

The municipal facilities continued to improve and are implementing their SWPPPs as well as assuming responsibility for conducting self-inspections of their facilities. All high priority municipal facilities were inspected during FY 05-06. In-house trainings continued to remind field personnel on proper implementation of appropriate BMPs and other storm water issues. Additional BMPs were implemented at the municipal sites as detailed in Section 2. The City successfully acquired a dedicated storm drain vector truck for maintenance, and hired a consultant to update the Storm Drain and Sewer Master Plans.

During FY 05-06, approximately 8,000 curb miles of streets were swept, removing an estimated 250 tons of materials. Approximately 142 cubic yards of sediment and debris were removed from the municipal separate storm sewer system, and approximately 1,393 cubic yards of sediment were removed from flood control channels.

FY 06-07 Plans

1. During FY 06-07, the City will have a GIS populated with the City's public storm drain and sanitary sewer systems. This will aid various departments with JURMP implementation activities and in the future with effectiveness assessments.
2. The City will continue working with the regional channel maintenance workgroup and consultants to pursue permits for channel maintenance activities.
3. The City will hire an outside contractor to inspect the six main high priority municipal facilities. This provides a third-party Stormwater professional perspective for the review and evaluation of site conditions and BMP implementation.
4. A new street sweeping contractor will be hired to improve the street sweeping program.

11.2.2 Industrial

FY 05-06 Program Strengths

All high priority and twenty medium priority industrial facilities were inspected during the reporting period. Detailed information on industrial permit issues were provided during inspections and in the report. The inspections included assessment of facility operator knowledge of storm water issues and facility BMP implementation. Additionally, a new assessment tool (Pollutant Discharge Potential Assessment) was implemented as a pilot project. Because many of the City's industrial facilities are found in new industrial parks, where essentially all activity is indoors, the number of BMP deficiencies observed at industrial sites was relatively small – only one violation was noted during industrial inspections.

The following are the results of the storm water knowledge and BMP assessments conducted during inspections. This is based on standardized ranking criteria that the inspector uses to rate the facility operator knowledge and the facility BMP implementation (from one – low to five – high). For this analysis, all industrial and commercial facilities that were inspected and assessed are included in these results.

Table 11.1 provides a breakdown of information from the inspections stating the average and median ratings for BMP and knowledge assessments, as well as rating frequencies, from both the FY 04-05 and FY 05-06 inspection programs.

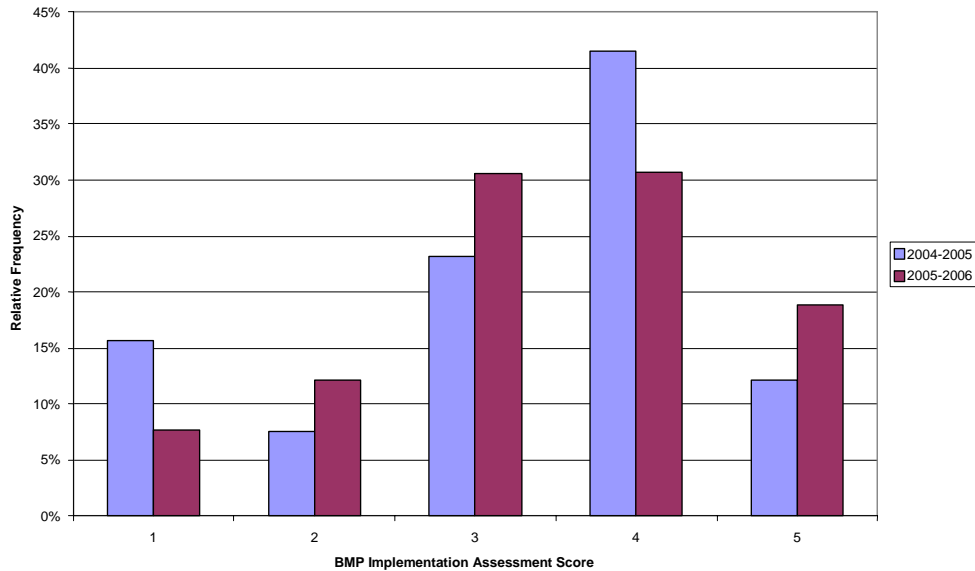
TABLE 11.1 STATISTICAL SUMMARY OF KNOWLEDGE AND BMP ASSESSMENT SCORES

Overall Program Scores:	2004-2005 Knowledge Assessment	2005-2006 Knowledge Assessment	2004-2005 BMP Assessment	2005-2006 BMP Assessment
AVERAGE Rating	2.3	2.3	3.3	3.4
MEDIAN Rating	2	2	4	3
# of "Level 5" Ratings	2	4	37	81
# of "Level 4" Ratings	44	67	127	132
# of "Level 3" Ratings	61	113	71	131
# of "Level 2" Ratings	129	109	23	52
# of "Level 1" Ratings	69	133	48	33

The overall average and median scores for storm water knowledge and BMP implementation were approximately the same in 2004-2005 and 2005-2006. Graphs 11-1 and 11-2 display relative score frequencies for BMP implementation and storm water knowledge, respectively. The graphs are based on relative frequencies so that the two years' inspection programs, which did not include the same number of inspections, can be more directly compared. Graph 11-1 shows that the bulk of facilities inspected in 2004-2005 tend to have BMP scores distributed around the peak at "4", but a relatively large group of outliers with a score of "1" bring down the average and median. While the overall average and median for BMP scores did not change substantially from 2004-2005 to 2005-2006, there was a substantial reduction in the number of sites with BMP scores of "1". This may indicate that inspections, education, and other measures taken by the City are helping to reduce the number of sites with a minimum BMP score.

GRAPH 11-1

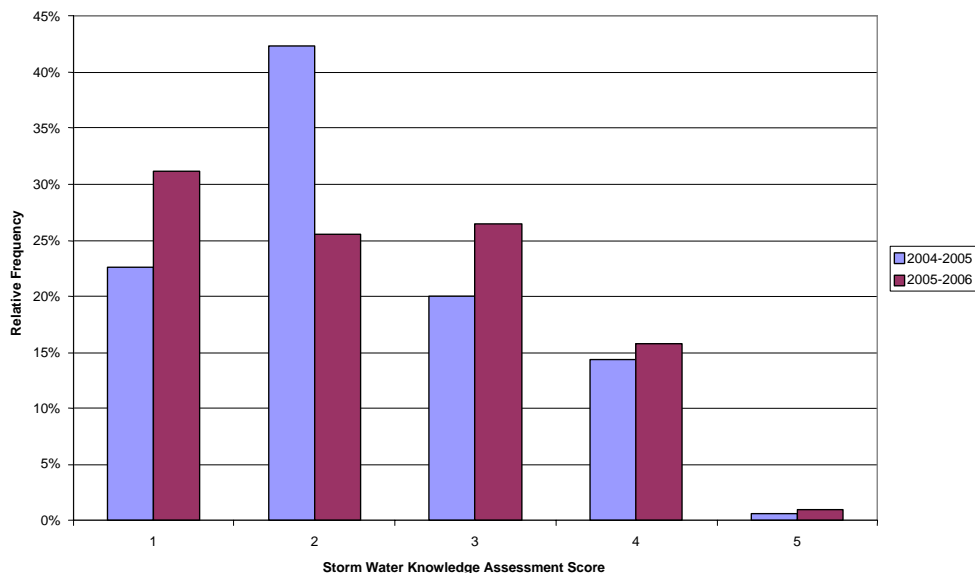
**City of Vista Industrial/Commercial Inspections
BMP Assessment Score Frequencies, 2004-05 and 2005-06**



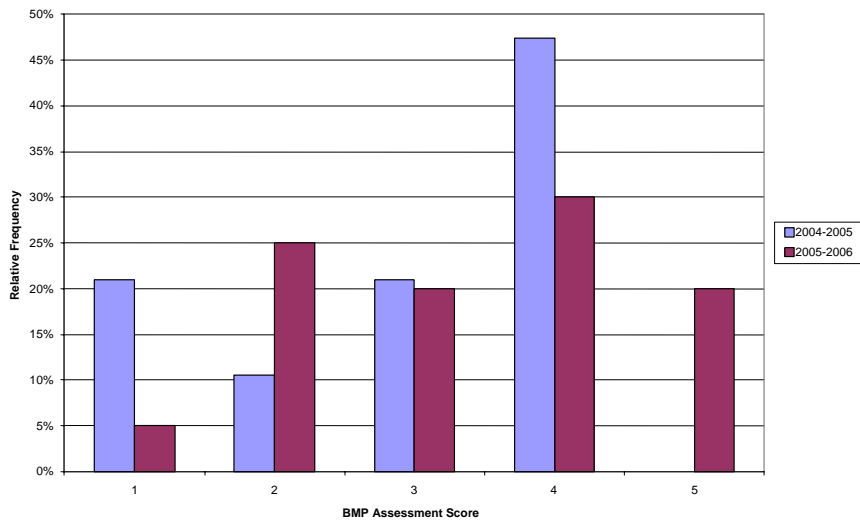
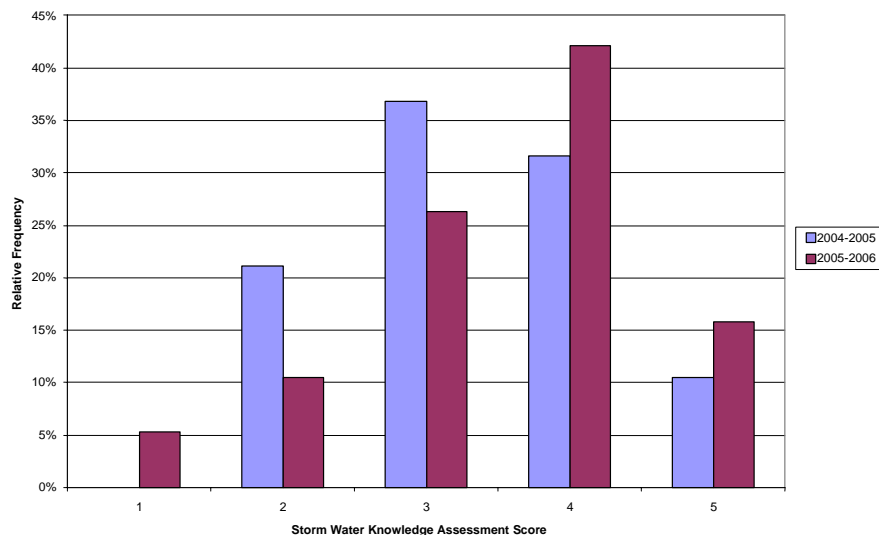
The fact that an increase in the median knowledge score was not observed after what was in many cases a second or even third inspection at a business may be attributed to different people's knowledge being assessed in 2004-2005 than in 2005-2006. It has been D-MAX's experience that restaurants in particular, which comprised a large portion of inspected facilities in both years, tend to have high turnover rates. Because employees and managers often change from year to year, inspectors often have to introduce the storm water program anew each time an inspection is conducted at such facilities.

GRAPH 11-2

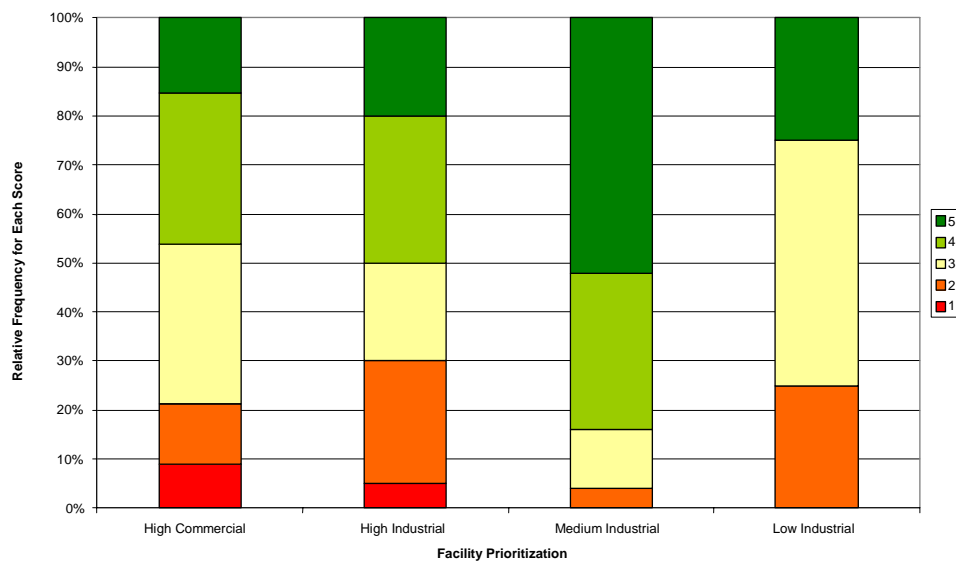
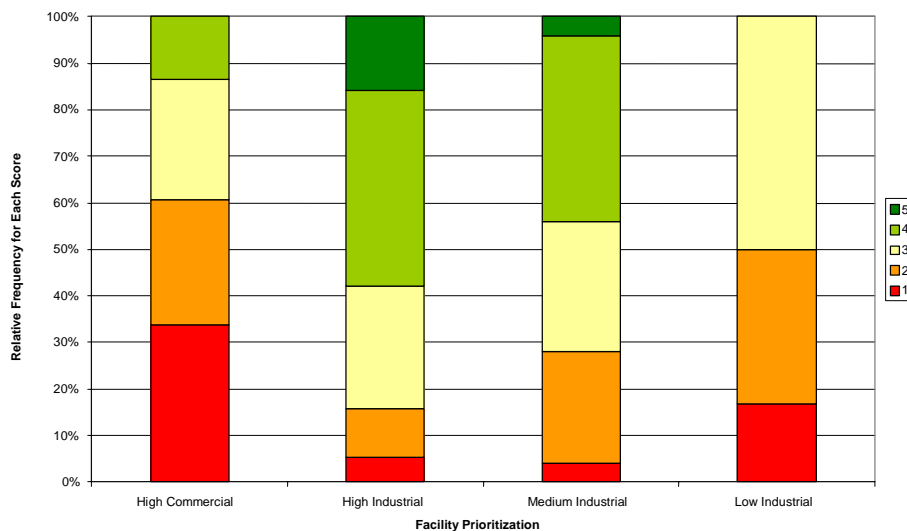
**City of Vista Industrial/Commercial Inspections
Storm Water Knowledge Assessment Score Frequencies, 2004-05 and 2005-06**



Because high priority industrial businesses are inspected each year and typically have lower staff turnover rates than other inspected businesses, their BMP and knowledge scores were also analyzed. Graphs 11-3 and 11-4 display the BMP and knowledge scores, respectively, for high priority industrial sites. Although the sample size of around 20 is not especially large, on the whole both the knowledge scores and BMP scores increased at these facilities. Our experience has shown direct interaction to be a powerful tool in achieving increased knowledge and BMP implementation, and much of these improvements may be due to direct interaction with the facility management during inspections. Because the majority of the high priority industrial sites are also subject to the Industrial Permit, the threat of enforcement by the Regional Board has also proven to be effective in encouraging compliance.

GRAPH 11-3**BMP Scores at High Priority Industrial Facilities****GRAPH 11-4****Knowledge Scores at High Priority Industrial Facilities**

The relative BMP and knowledge score frequencies for facilities within each threat to water quality prioritization category are displayed in Graphs 11-5 and 11-6. As might be expected, high priority commercial businesses, which tend to have the highest turnover, and low priority industrial businesses, which are not inspected often, have the lowest storm water knowledge scores. More than 60 percent of the high priority commercial businesses have knowledge scores of “1” or “2”. High priority industrial businesses have the highest knowledge scores, likely because they are inspected most frequently and typically also are regulated under the Industrial Permit.

GRAPH 11-5**Breakdown of Storm Water BMP Assessment Scores by Facility Priority
2005-2006****GRAPH 11-6****Breakdown of Storm Water Knowledge Assessment Scores by Facility Priority
2005-2006**

Interestingly, medium priority businesses have the highest BMP implementation scores as a group, with over 80 percent of the businesses having scores of “4” or “5”. This is likely because most businesses in the medium priority category are industrial facilities with very minimal, if any, exposure of activities to storm water.

Statistical analyses showed no significant correlation between BMP implementation and storm water knowledge scores on a site by site basis. This is because sites with low knowledge scores had high BMP scores in a number of cases, and vice versa. On an aggregate level though, increasing storm water knowledge appears to be correlated with increasing BMP scores, as shown in Table 11.2 below.

TABLE 11.2 COMPARISON OF AGGREGATE BMP AND KNOWLEDGE SCORES

Knowledge Score	Number of Sites	Average BMP Score	Median BMP Score
1	133	3.1	3
2	109	3.3	3
3	113	3.6	4
4 or 5 ¹	71	3.7	4
All Scores (1-5)	426	3.4	3

¹ Due to the low number of knowledge scores of “5”, scores of “4” and “5” have been grouped together for the purposes of this table.

FY 06-07 Plans

The City will continue to conduct annual inspections of high priority industrial facilities and inspect other industrial facilities as resources allow. Because the permit requires these annual high priority inspections, the City can not choose to not inspect these in favor of the less inspected, low priority facilities. If this language is changed in the new Permit, the City can better apply resources to be more effective at improving industrial BMP implementation. Following are additional program improvements that the City will address in FY 06-07.

1. Database modifications to better improve tracking and reporting for routine and follow-up inspections.
2. Expanded use of the PDPA form for inspected facilities.
3. Increased enforcement efforts to obtain compliance from facilities that have failed to conduct required monitoring.

11.2.3 Commercial

FY 05-06 Program Strengths

The major accomplishment for this component during the reporting year was the inspection of all inventoried restaurants, automotive repair facilities, nurseries and greenhouses. The inspections focused on the City's and the watershed's identified COCs; bacteria, nutrients, sediment and trash.

Other strengths included the continued use of the knowledge and BMP implementation assessments conducted during inspections, as well as the use of the new PDPA form that was conducted as a pilot project. The results of the knowledge and BMP assessments for the commercial facilities were summarized above with the Industrial program description.

FY 06-07 Plans

There continue to be compliance issues with commercial facilities, particularly with restaurants and how they handle and store waste oil and grease.

In general, the City would like to see the commercial program grow increasingly effective each year in bringing facilities into compliance. Program staff have identified several mechanisms that will help us achieve increased compliance:

1. Continue to focus inspections on restaurants and other commercial facilities with repeated non-compliance issues.
2. Expand the use of the new PDPA form to gather information on inspected commercial facilities.
3. Work with Planning and Development Services to ensure that proper waste disposal storage facilities (overhead cover and containment for trash and other materials) are required and installed at new facilities.

11.2.4 Residential

FY 05-06 Program Strengths

The City continued to actively conduct residential outreach as well as complaint investigations to obtain compliance with BMP requirements for high priority residential areas and activities. Residential use of the HHW facility is increasing, with a 20% increase by Vista residents during FY 05-06. A new pet waste education program was launched and will be fully implemented during FY 06-07.

FY 06-07 Plans

The City has identified nitrates and trash as COCs (dry weather conditions). The watershed has identified bacteria and sediment as high priority COCs (wet weather monitoring). Some residential areas and activities can contribute to these COCs. As shown in the City's dry weather program,

over-irrigation runoff can carry contaminants to the storm drain system. The City will continue to implement education and investigation programs to reduce these COCs. This includes implementation of the pet waste program and improved collaboration with the Vista Irrigation District to address water conservation and over-irrigation issues.

11.2.5 Land Use Planning and Development

FY 05-06 Program Strengths

During the reporting period, the City continued to implement its SUSMP requirements for all projects. Since the RWQCB SUSMP Program audits, the City has made a concerted effort towards obtaining conformance with the SUSMP requirements for site design and source control implementation. This has been accomplished and the resulting BMPs have been progressing toward Low Impact Development types. The more natural types of BMPs have also crossed from site design into treatment control BMPs. All of the priority projects approved during the reporting period had natural treatment control BMPs with the exception of one that utilized media filtration as the method of treatment. The natural treatment control BMPs included properly designed treatment control detention basins and vegetated bioswales.

FY 06-07 Plans

The City plans to collaborate with other Copermittees to work towards regional standards for implementation of SUSMP requirements, including LID and HMP requirements. Currently, there is no standard for quantities of site design and source control for projects. By developing minimum standards, the Copermittees could eliminate the confusion over how much site design is required. Until the interim and final HMP requirements are determined, the quantity of site design BMPs for a particular project is still jurisdictionally specific and developers across the region are subject to mixed requirements. The City also plans to continue to require more natural treatment control BMPs and site design features for the projects.

11.2.6 Construction

FY 05-06 Program Strengths

The construction component strengths during the reporting period were the site inspections conducted at all priority sites. As City inspectors have become more educated through training sessions, and their own experiences, the inspections and contractor compliance has improved.

Another strength comes from the use of a database that generates project specific inspection forms based on site priorities. The database user can generate the forms at the required inspection frequency.

In addition, program staff spent a considerable amount of time with the Building Department inspectors training them on proper storm water BMPs and key areas to inspect.

FY 06-07 Improvement Plans

During FY 06-07, staff will continue working with the Building Department to ensure post-construction BMPs are being constructed as required. In addition, City staff will continue meeting with developers and contractors at all pre-cons to discuss site BMPs.

11.2.7 Illicit Discharges Detection and Elimination

FY 05-06 Program Strengths

The City continued to actively seek and eliminate illicit connections and discharges through the dry weather program and complaint investigations. While there were various exceedances of dry weather actions levels, the 2006 Dry Weather Monitoring Program found relatively few indications of illegal discharges to the City of Vista's storm water conveyance system.

The City responds to private sewer lateral spills in order to help contain and prevent discharges to the storm drain and receiving waters. Although it is the private property owner's responsibility to maintain the lateral and cleanup these spills, the City will contact a plumber or turn off water if the private property owner is unavailable or unwilling to address the issue. The City was made aware of and responded to 10 private lateral overflows. All sewage was recovered and did not discharge into the storm drain system or receiving waters.

The City conducts an active stormwater complaint investigation and enforcement program, responding to 210 stormwater complaints last year. The City's ultimate goal is to achieve compliance, and the Code Enforcement Officer works to achieve that end through education or enforcement, as appropriate.

FY 06-07 Plans

The City will continue to implement these strong program areas and refine them as needed. The completed GIS maps will assist the City in evaluating the locations of the current dry weather monitoring sites to determine if they are properly located in order to best identify illegal discharges. The City will also reevaluate the sewer maintenance program and begin planning a Fats, Oils and Grease program in order to comply with the new Waste Discharge Requirements for Sewer Collection Systems.

11.2.7 Education

FY 05-06 Program Strengths

The strength of the education program during this reporting period was the active distribution of storm water materials to various target audiences, including residents, municipal staff, school children, businesses, developers and construction site operators. The City conducted and participated in external and internal workshops and presentations, including elementary school classroom presentations, automotive environmental compliance workshop, restaurant workshop, SUSMP workshop for developers and numerous City staff training sessions.

As part of the elementary school classroom presentations, there were a number of students who were given tests before the presentation and then tests after to assess changes in knowledge. Table 11.3 below shows the number of students involved and the approximate 100% increase in number of students with stormwater knowledge after the presentations.

Table 11.3

EcoQuiz Results	# of students attending presentations	Number of students aware of watershed & storm drains before presentations	Number of students aware of watershed & storm drains after presentations
Total	1543	499	1003

Studies have shown that information alone is not enough to change behavior (Frahm, A., et al., "Changing Behavior: Insights and Applications", July 1996, Local Hazardous Waste Management Program, King County, Washington). Messages to change behavior are more persuasive if they are geared to the appropriate target audience, are concise and attention grabbing, utilize peer pressure, are delivered by a role model or recognized expert, or elicit commitment from the audience. Vista helped develop and began distributing postcards that included a watershed protection message with a pledge card for individuals to use to self-commit to specific non-polluting behaviors. Additionally, Vista created and distributed two pledge cards that were distributed to school children during the classroom presentations. This included one for those with dogs to pick up after them, and one to remind their family to properly dispose of paint, cleaners and pesticides. At this time, the cards are for use by the individual only and are not collected and tallied by the City. However, it is anticipated that future education messages and methods will be tailored to these insights and to overcoming barriers to behavior change.

FY 06-07 Plans

A significant amount of written educational material has now been developed and the focus of the education component will move towards further avenues of dissemination of those materials. Additionally, the City of Vista will continue to collaborate with watershed and regional education

groups to focus on education campaigns that are effective at overcoming barriers to behavior change. Following are some identified program improvement areas for FY 06-07.

1. The City will continue to distribute the materials that have been developed, and will work with the watershed and regional education groups to develop effective materials and campaigns.
2. The City will continue to conduct classroom presentations to school children, and to educate target audiences on specific BMPs and issues as they are identified.

11.2.8 Public Participation

FY 05-06 Program Strengths

Vista expanded creek cleanup efforts throughout the City, which improves our waterways and encourages the public to become stewards of their community. The City also provided many opportunities for public participation, from formal public meetings to festivals. Vista continued to advertise the hotlines on educational and promotional materials. Vista residents who have an interest in improving their neighborhoods can take part in various City programs and commissions.

FY 06-07 Plans

The City will continue to seek public involvement with the JURMP, and to pursue grants which will focus on water quality assessments and improvements and opportunities for public participation in these plans and programs.

12.0 FISCAL ANALYSIS

FY05-06 and FY06-07 FUNDING SOURCE AND BUDGET

The City's Stormwater Management Program is funded through the City's Sewer Enterprise fund and is typically based on a two-year budgeting cycle.

Additionally, the City continues to pursue and utilize funding from grant sources. Some of the education activities are funded through the Used Oil Block Grant. The City will also pursue other State Funds as part of watershed collaboration efforts.

Table 12-1 City of Vista Budget Summary

<u>Stormwater Program Item</u>	<u>2005-06 Budget</u>	<u>2006-07 Budget</u>
Staff		
• Salaries and benefits	\$ 191,351	\$ 212,884
MS4 Maintenance		
• Storm Drain Maintenance & staff		
• Waste Testing & Disposal		
• Equipment Rental & Purchase	\$ 1,045,501	\$ 1,169,607
• Street Sweeping Contracts		
• Municipal BMPs, programs		
Monitoring		
• Dry Weather Monitoring	\$ 114,001	\$ 111,150
• Wet Weather Monitoring		
• Spill Response Sampling		
Business Inspection & Enforcement		
• Industrial/Commercial Inspections	\$ 125,000	\$ 120,450
• Database updates/management		
Permit Fees		
• SWRCB Permit Fee	\$ 15,000	\$ 15,000
Education		
• Events		
• Training & conferences (internal/external)	\$ 51,647	\$ 34,381
• Materials Development		
• Used Oil Block Grant (1/2)		
WURMPs		
• WURMP coordination	\$ 437,500*	\$ 67,000
• TMDL monitoring, cost share		
• MS4 mapping		
Administrative Expenses		
• Supplies	\$ 2,000	\$ 1,195
Total =	\$ 1,982,000	\$ 1,731,667

* Includes storm drain master plan and GIS work.

13.0 SPECIAL INVESTIGATIONS

There were no special investigations conducted during the FY 2005-06 Annual Reporting period.

14.0 CONCLUSIONS AND RECOMMENDATIONS

This JURMP annual report marks the end of the City of Vista's fifth reporting year (June 2005 to July 2006) for compliance with Order 2001-01. The City continued to actively implement the programmatic activities defined in the City's Jurisdictional Urban Runoff Management Plan (JURMP). Some of the key areas of implementation of the JURMP during this period included acquiring necessary equipment to improve maintenance activities, expanding inspections and compliance activities, approving more high efficiency and natural BMPs for new development, assessing water quality, maintaining a focus on education, and encouraging citywide and community participation. The City also continued contributing to the development and implementation of the programs in two watersheds (Carlsbad and San Luis Rey Watersheds).

14.1 ITERATIVE PROCESS

The City's stormwater program continued to evolve. The City's JURMP states that the program will require periodic revision. The City of Vista is committed to working with its staff, other Copermitees and the RWQCB to improve and adapt the plan and efforts as necessary to comply with the permit requirements. The City's program continues to be dynamic requiring changes in the daily operations and implementation based on lessons learned and City staff input.

14.2 PROGRAM FOCUS

The City continued to focus on implementing program requirements at municipal facilities and operations. These efforts were through: (1) staff training and education (both internally and externally); (2) implementation of facility Storm Water Pollution Prevention Plans; (3) facility inspections; (4) maintenance of structural BMPs; and (5) acquiring new maintenance equipment and reviewing contracted services.

The City made a concerted effort towards obtaining conformance with the SUSMP requirements for site design and source control implementation. There was also an emphasis on natural treatment control BMPs, including treatment control detention basins and vegetated bioswales. The City's construction inspection process also improved over the last year, with an emphasis on education at pre-con meetings and construction site BMP implementation.

Inspections of the industrial and commercial businesses were expanded during the reporting period. All high priority industrial facilities were inspected along with all inventoried restaurants, nurseries and greenhouses, automotive repair shops and gas stations. Assessment programs continued to be implemented and a new Pollutant Discharge Potential Assessment was conducted as a pilot program.

The City continued to actively seek and eliminate illicit connections and discharges through the Dry Weather Monitoring Program and complaint

investigations. The Dry Weather Monitoring Program found relatively few indications of illegal discharges to the City of Vista's storm water conveyance system. Follow-up investigations were successfully conducted. Compliance was achieved through education or enforcement as necessary. The City also responded to private sewer lateral spills and prevented discharges to the storm drain system.

Education of all target audiences continued to be a key element for the success of the program. During this year, a significant amount of educational materials were developed and disseminated. Thousands of school children and adults attended educational presentations. The City also provided numerous opportunities for public participation and increased the number of creek cleanups.

14.3 FUNDING SOURCES

The JURMP activities are funded through the general fund and the sewer enterprise fund. Some storm water education programs were funded through the California Integrated Waste Management Board Used Oil Block Grant. The City also pursued various grants during the year, submitting grant proposals for additional education programs and watershed management plans.

14.4 WATER QUALITY DATA ANALYSIS

The City has been collecting dry weather water quality data for many years under the previous Municipal Permit (Order 90-42). The requirements for monitoring changed under Order 2001-01 as did the City's monitoring efforts. The City has collected five seasons of data under these new requirements and has already gained some valuable insight regarding the City's main constituents of concern. During the dry season, nitrates and trash were the most commonly observed pollutants. Programs will continue to be focused around these specific issues.

14.5 CITYWIDE PARTICIPATION

The City's Water Quality Protection Program is administered by the Engineering Department management and staff. However, the JURMP is a citywide program with its continuing success dependent upon all City staff participation. During this reporting period the program was successful in integrating into many citywide programs which will ensure continued program compliance.

14.6 WATERSHED COLLABORATION

The City will continue to collaborate and focus on implementing the activities developed in the Carlsbad and San Luis Rey Watershed Urban Runoff Management Plans with the appropriate Copermittees, organizations and stakeholders within these watersheds.

14.7 PROGRAMMATIC RECOMMENDATIONS

The Water Quality Protection Program and various City staff continue to look for ways to improve the City's JURMP implementation. The recommended action plans for the 2006-2007 Fiscal Year are detailed in Report Section 11, Effectiveness Assessment. This included several areas of focus to build on program success. An outline of these recommended plans is presented below:

Municipal

- Utilize newly populated storm drain and sanitary sewer system GIS layers
- Pursue channel maintenance permits
- Fully utilize new vactor truck for storm drain maintenance and improve street sweeping program

Industrial

- Increase enforcement for monitoring activities
- Expand use of PDPA during inspections

Commercial

- Focus inspections on restaurants and repeat offenders
- Expand use of PDPA during inspections

Residential

- Implement pet waste education program
- Continue to address over-irrigation runoff issues and collaborate with Vista Irrigation District

Land Use Development

- Collaborate with Copermittees toward regional SUSMP requirements, including LID and HMP requirements.

Construction

- Continue addressing storm water issues at pre-con meetings
- Continue to work with Building Department on post-construction BMPs

Illicit Discharge Detection and Elimination

- Review dry weather monitoring locations – adjust as needed
- Begin to develop a Fats, Oils and Grease program

Education

- Pursue other avenues for educational material dissemination
- Collaborate with watershed and regional education workgroups
- Conduct classroom education, including pilot project at Guajome Academy

Public participation

- Pursue grants and provide public participation opportunities for plan development

Effectiveness Assessment

- Work with Copermittees to develop standardized assessment methods and tools

Fiscal analysis

- Continue to pursue a stable funding source for the City's Jurisdictional Urban Runoff Management Program

Appendices

APPENDIX A-1

MUNICIPAL FACILITIES INVENTORY

Name	Description	Address	Priority
MUNICIPAL YARDS			
Public Works Yard	Street, Sewer & Vehicle Maintenance Facility	1165 East Taylor St.	high
Public Works Satellite Yard	Dumpster & Container Storage Facility	2430 Lupine Hills Dr.	high
PW Auxiliary Yard HHW Center	Recycle Center, Dumpsters & Storage Facility	1145 East Taylor St.	high
PARKS			
Guajome Park (Vista portion)	Vacant Land/Open Space	North Santa Fe Ave.@ Osborne	low
Buena Vista Park	Walking Trails & Open Space	Shadowridge Dr.@ Green Oak Rd.	low
Brengle Terrace Park	Gym, Hall Rental, Outdoor Facilities, Theatre	1200 Vale Terrace Dr.	low
Brengle Terrace Park	Maintenance Yard	1201 Vale Terrace Dr.	high
Williamson Park (Restrooms)	Softball Fields & Parking	Grapevine Lane	low
Breeze Hill Park (Restrooms)	Softball Fields, Playground Equip. & Parking	South Melrose @ Los Palmas	low
Raintree Park (Restrooms)	Playground Equipment	Townsite Dr. @ Indian Rock Rd.	low
Townsite Park (Restrooms)	Playground Equipment & Soccer Field	Townsite Dr. @ North Citrus Dr.	low
Wildwood Park (Restrooms)	Museums, Hall Rental, Playground & Parking.	651 East Vista Way	low
Civic Center Park (Restroom)	Tennis Court, Skateboard & Playground Equip.	600 Eucalyptus Ave.	low
Thibido Park (Restrooms)	Tennis Court, Adobe Rental & Playgrd Equip.	Lupine Hills Dr. @ Countrywood	low
Shadowridge Park (Restroom)	Playground Equipment & Parking	Lupine Hills Dr. @ Optimist Way	low
Vista Village Creek Walk	Park with Creek Walkway	Recreation Drive	medium
Wave Waterpark	Pool, Water Rides, Rentals & Food Prep.	161 Recreation Dr.	high
PUBLIC PARKING / ROADS, STREETS & HIGHWAYS			
Public Parking Downtown	For Main Street Merchants	Vista Village Dr. @ Michigan Ave.	high
	For Main Street Merchants	Main St. @ Michigan Ave.	high
	For Main Street Merchants	Main St. @ Indiana Ave.	high
	For Broadway Merchants	Broadway @ Hanes Dr.	high
	City Hall Parking	Eucalyptus Ave.	high
SEWER & STORM DRAIN FACILITIES			
Sewage Pump Station	Main to Encina Wastewater Treatment	Jefferson St. & Hwy. 78 (Carlsbad)	high
Sewage Pump Station	Main to Encina Wastewater Treatment	So. Melrose Dr. & Green Oak Rd.	high
Sewage Pump Station	Main to Encina Wastewater Treatment	So. Melrose Dr. & Aspen Way	high
Sewage Collection & Transmission Lines	Sewage collection & transmission lines	Throughout the City	high
MS4	Stormwater conveyance system	Throughout the City	high
DRAINAGE FACILITY PARCELS			
Underground	Underground Concrete Box Channel	North Santa Fe Ave. @ East Dr.	high
	Underground Concrete Box Channel	North Santa Fe Ave.@ W. L.A. Dr.	high
	Underground Concrete Box Channel	Vista Village Dr. & Recreation Dr.	high
	Underground Concrete Box Channel	Vista Village Dr./Hwy 78 Bridges	high

APPENDIX A-1 MUNICIPAL FACILITIES INVENTORY

Name	Description	Address	Priority
Open Concrete / Gabion	Open Concrete Box Channel	Orange Ave. @ A.T.&S.F.RR.	high
	Open Concrete Lined Channel	Recreation Dr.	high
	Open Concrete Lined Channel	Vista Village Dr./Hwy 78 Bridges	high
Detention Basin	Detention Basin (Buena Vista Creek)	Vale Terrace Dr.(Brenge Terr Park)	high
	Detention Basin (Buena Vista Creek)	Monte Vista Dr. @ Cypress Dr.	high
	Detention Basin (Buena Vista Creek)	Valley Dr. @ Fireside Ln.	high
Open Space / Drainage	Open Space/Drainage Easement	Foothill Dr.@ Via Cristina	high
	Open Space/Drainage Easement	Park Center Dr.	high
	Open Space/Drainage Easement	Park Center Dr.@ Business Park	high
	Open Space/Drainage Easement	Specialty Dr.	high
	Open Space/Drainage Easement	South Melrose Dr. @ City Limits	high
	Creek/Open Space/Drainage Easement	Oak Dr.	high
	Creek/Open Space with Sewer Outfall Easement	Hacienda Dr. @ Moran Court	high
	Improved Creek/Open Channel/Wetlands	Hacienda Dr. @ Moran Court	high
CITY FACILITIES			
Fire Station # 1	Building & Parking	175 North Melrose Dr.	medium
Fire Station # 3	Building & Parking	1070 Old Taylor St.	medium
Fire Station # 2	Building & Parking	1050 Valley Dr.	medium
Fire Station # 4	Building & Parking	2121 Thibido Rd.	medium
Avo Theatre	Parks & Recreation Rental	Main St. & Michigan Ave.	medium
Warehouse Facility	Leased to Costco.	Hacienda Dr. @ Emerald Ave.	medium
Sheriff Station	Residential Used as a Sub-Station Office	340 Townsite Dr.	medium
Sheriff Station	Residential Used as a Sub-Station Office	1477 Moon Rd.	medium
Sheriff Station	Residential Used as a Sub-Station Office	2082 Thibido Rd.	medium
Chamber of Commerce	Community Center Complex & Parking (Block)	201 East Washington St.	medium
City Library Building	Library, Parking & Book Store (County Staffed)	700 Eucalyptus Ave.	medium
City Hall Office Complex	Main Offices. Vehicle Storage & Parking	600 Eucalyptus Ave.	medium
Brenge Terrace Park	Senior Center, Hall Rental, Catering & Parking	1400 Vale Terrace Dr.	medium
Historical Site Parkland	Rock Outcropping with Petroglyph	Apollo Dr.	medium
Rancho Buena Vista Adobe	Museums, Hall Rental & Gift Store.	651 East Vista Way	medium
VACANT LAND PARCELS			
Various Locations Throughout the City			low

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
High Priority Industrial						
American Peptide Company	1271 Avenida Chelsea, Vista, CA 92083	Potential		2834	325412	Agua Hedionda
C Enterprises, LP	2445 Cades Way, Vista, CA 92081	High	x	3357	33592	Agua Hedionda
Cercom, Inc. (BAE Systems)	991 Park Center Dr., Vista, CA 92083	High	x	3297	327125	Agua Hedionda
Cercom (watson way)	1960 Watson Way, Vista, CA 92083	Potential		3297	327125	Agua Hedionda
E&J Stone	795 North Drive, Suite E, Vista, CA 92081	High	x	3281	327991	Loma Alta
E-World Recyclers, L L C	2480 Ash St., Vista, CA 92081	Potential			562119	Agua Hedionda
Excellent Coatings Inc	1285 Distribution Way, Vista, CA 92083-8817	High	x	2851	325510	Agua Hedionda
Ferro Electronic Materials Systems	1395 ASPEN WAY, Vista, CA 92083	High	x	3675	334414	Agua Hedionda
Frito Lay Inc	1390 VANTAGE CT, Vista, CA 92083	Potential		4214	484220	Agua Hedionda
Jensen Meat Co Inc	2525 BIRCH ST, Vista, CA 92083	High	x	2013	311613	Agua Hedionda
Lee Steel & Supply	1305 LEE DR, Vista, CA 92083	High	x	5051	421510	Loma Alta
Lee's Iron Inc	1315 LEE DR, Vista, CA 92083	High	x	5093	421930	Loma Alta
Osmonics (GE)	760 Shadowridge Dr., Vista, CA 92083	High	x	3999	339999	Agua Hedionda
Pacific Lead Products, Inc.	793 NORTH AVE, Suite #D, Vista, CA 92083	High	x	3369	331528	Loma Alta
Print Inc	1225 PARK CENTER DR, Suite #A, Vista, CA 92083	High	x	2759	323113	Agua Hedionda
Quality Discount Ice Cream Inc	2465 CORAL ST, Vista, CA 92083	High	x	4214	484220	Agua Hedionda
Rayzist Photomask Inc	955 PARK CENTER DR, Vista, CA 92083	High	x	3281	327991	Agua Hedionda
Reybro, Inc. dba Quality Recycling	149 NETTLETON RD, Vista, CA 92083	High	x	5093	421930	Buena Vista
Roadway Express Inc.	1392 Engineer St, Vista, CA 92083	High	x	4212	484110	Agua Hedionda
Shadowridge Water Reclamation	2525 LUPINE HILLS RD, Vista, CA 92083	High	x	4952	221320	Agua Hedionda
Summit Windows and Patio Doors	2760 Progress St, Vista, CA 92081	High	x	3089	337215	Agua Hedionda
Versaform Corp	1377 Specialty Dr, Vista, CA 92081	Potential		3728	336413	Agua Hedionda
Watkins Manufacturing Corp	1280 PARK CENTER DR, Vista, CA 92083	High	x	3088	326191	Agua Hedionda
Westbridge Research Group	1150 JOSHUA WAY, Vista, CA 92083	High	x	2879	32532	Agua Hedionda
Medium Priority Industrial						
2s2, Inc.	1330 Specialty Dr #C, Vista, CA 92081	Medium		3679	334419	Agua Hedionda
A T Machine	2515 PIONEER AVE, Suite #3, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
A W R/Racing Cages	2865 Scott Street #106-107, Vista, CA 92081	Medium	x	3711	336211	Agua Hedionda
Accutech, LLC	2641 LA MIRADA DR, Vista, CA 92083	Medium		2835	325413	Agua Hedionda
Advance Web Offset, Inc.	2260 Oak Ridge Way, Vista, CA 92081	Medium	x	2752	323110	Agua Hedionda
Aea Wireless, Inc.	1489 POINSETTIA AVE 134, Vista, CA 92083	Medium	x	3679	334418	Agua Hedionda
Aero Vision International	2780 LA MIRADA DR, Suite #C, Vista, CA 92083	Medium		3724	336412	Agua Hedionda
Air Tech Streamlining	2530 FORTUNE WAY, Vista, CA 92083	Medium		3714	000000	Agua Hedionda
Alvarado Micro-Precision	2475 CORAL ST, Suite #C, Vista, CA 92083	Medium		3499	332999	Agua Hedionda
American Faucet & Coatings Corp	3280 CORPORATE VIEW DR, Vista, CA 92083	Medium		3499	33251	Agua Hedionda
American Metal Packaging Company	1185 PARK CENTER DR, Suite #C, Vista, CA 92083	Medium		3674	42161	Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Aperio Technologies, Inc.	1430 VANTAGE CT 106, Vista, CA 92083	Medium	x	3826	334516	Agua Hedionda
Apollo Sprayers Inc	1030 JOSHUA WAY, Vista, CA 92083	Medium		3999	339999	Agua Hedionda
Applied Control Concepts / CNC	1209 Activity Dr , Vista, CA 92081	Medium	x	3599	332710	Agua Hedionda
Applied Membranes, Inc.	2325 COUSTEAU CT, Vista, CA 92083	Medium		3589	333319	Agua Hedionda
Applied Technology Co.	1280 LIBERTY WAY, Vista, CA 92083	Medium		3999	339999	Agua Hedionda
Armorcraft Off-Road Corp	2312 La Mirada Drive, Vista, CA 92081	Medium	x	3711	336111	Agua Hedionda
Arshia Custom Cabinet	2525 Pioneer Ave, #5, Vista, CA 92081	Medium	x	2434	337110	Agua Hedionda
B & C Nutritional Products Inc	2550 PIONEER AVE, Vista, CA 92083	Medium		2834	325412	Agua Hedionda
B/E Aerospace	2555 BIRCH ST, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
Bekaert Progressive Composites	2455 ASH St, Vista, CA 92083	Medium		3089	326199	Agua Hedionda
Bendmac Manufacturing	440 OLIVE AVE, Suite #P, Vista, CA 92084	Medium		3498	332996	Buena Vista
Bilandzija Cabinets	2588 PROGRESS ST, Suite #5, Vista, CA 92083	Medium		2434	33711	Agua Hedionda
BOJ	611 MERCANTILE STREET, VISTA, CA 92083	Medium	x	2434	337110	Buena Vista
Bravo Screen Print	1230 Activity Rd #D, Vista, CA 92081	Medium	x	2759	323113	Agua Hedionda
Bristol S.G., Inc.	2525 PIONEER AVE, Suite #6, Vista, CA 92083	Medium		3679	339999	Agua Hedionda
Bruning Engineering Inc	2598 FORTUNE WAY, Suite #M, Vista, CA 92083	Medium		3499	332117	Agua Hedionda
C N C Precision Machining	797 NORTH AVE, Suite #C, Vista, CA 92083	Medium		3599	33271	Buena Vista
Caldwell Development Inc	1271 ACTIVITY DR, Vista, CA 92083	Medium		3519	42199	Agua Hedionda
Carlsbad Custom Cabinets	1341 DISTRIBUTION WAY, Suite #14, Vista, CA	Medium		2434	33711	Agua Hedionda
CH Products	970 PARK CENTER DR , Vista, CA 92083	Medium	x	3699	333319	Agua Hedionda
Closet World Inc.	1335 PARK CENTER DR, Suite #A, Vista, CA 92083	Medium		2521	23551	Agua Hedionda
Coast Intelligen, Inc.	2460 ASH ST, Vista, CA 92083	Medium		3621	335312	Agua Hedionda
Cookies Con Amore	2330 La Mirada Dr #700, Vista, CA 92081	Medium	x	2052	311821	Agua Hedionda
Cornerstone Sensors Inc	1304 N.MELROSE DR, Suite #C, Vista, CA 92083	Medium		3676	334415	Loma Alta
Cousins Signs Inc	350 E.BROADWAY, Vista, CA 92084	Medium		3993	33995	Buena Vista
Creative Printing	1132 N.MELROSE DR, Vista, CA 92083	Medium		2759	323112	Buena Vista
C-Shoes	797 NORTH AVE, Suite #D, Vista, CA 92083	Medium		3499	332117	Buena Vista
Csi Technologies, Inc.	2595 COMMERCE Way, Vista, CA 92083	Medium		3629	335999	Agua Hedionda
Custom Machined Products	1338 N.MELROSE DR, Suite #E, Vista, CA 92083	Medium		3499	332117	Loma Alta
D J Orthopedics, L L C	2985 SCOTT ST, Vista, CA 92083	Medium	x	3482	334510	Agua Hedionda
Dart Plastics & Engineering, Inc.	1240 ACTIVITY DR, Suite #A, Vista, CA 92083	Medium		3808	326199	Agua Hedionda
Dime Water, Inc.	2575 FORTUNE WAY, Suite #J, Vista, CA 92083	Medium		3589	333319	Agua Hedionda
Distinctive Plastics, Inc.	1385 DECISION ST, Vista, CA 92085	Medium		3089	326199	Agua Hedionda
Diversified Manufacturing Of Ca	2555 PROGRESS ST, Vista, CA 92083	Medium		3999	339999	Agua Hedionda
Diversified Tool & Die	2585 BIRCH ST, Vista, CA 92083	Medium		3469	332116	Agua Hedionda
Douglas Wheel, Inc.	1340 N.MELROSE DR, Vista, CA 92083	Medium		3714	336399	Loma Alta
Dutek Inc.	2248 OAK RIDGE WAY , Vista, CA 92083	Medium	x	3679	334418	Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Earthlite Massage Tables Inc dba	3210 EXECUTIVE RIDGE DR , Vista, CA 92083	Medium		2599	3371	Agua Hedionda
Eaton Leonard Robolix, Inc	1391 SPECIALTY DR, Suite #A, Vista, CA 92083	Medium		3542	333513	Agua Hedionda
Econo Plastics, Inc. (Progressive	1210 N.MELROSE DR, Suite #A, Vista, CA 92083	Medium		3089	326199	Buena Vista
Elite Metal Finishing	1392 POINSETTIA AVE, Suite #C, Vista, CA 92083	Medium		3471	332813	Agua Hedionda
F&T Precision Products	980 PARK CENTER DR, Suite #I, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
Fax Foods	1392 POINSETTIA AVE, Suite #A&B, Vista, CA 92083	Medium		3089	321699	Agua Hedionda
Fish House Foods, Inc.	3285 CORPORATE VIEW DR, Vista, CA 92083	Medium		5149	42249	Agua Hedionda
Flotron	2485 CORAL ST, Vista, CA 92083	Medium		3999	339999	Agua Hedionda
Francis P. Gallo Services	323 E. BROADWAY F, Vista, CA 92084	Medium		2759	51411	Buena Vista
Funktion	1930 WATSON WAY, Suite #P, Vista, CA 92083	Medium		3999	339999	Buena Vista
Graphic Converting, Inc.	1370 DECISION ST, Vista, CA 92083	Medium		2657	322212	Agua Hedionda
Grilla	1235 Activity Dr Ste F, Vista, CA 92081	Medium	x	3714	336399	Agua Hedionda
H F Johnston Mfg. Co.	2475 ASH ST, Vista, CA 92083	Medium		3599	332999	Agua Hedionda
H2O F/X	1230 Activity Drive E & F, Vista, CA 92081	Medium	x	3444	332322	Agua Hedionda
HI REZ Digital Solutions	1235 Activity Drive, Suite #E, Vista, CA 92081	Medium	x	2759	323115	Agua Hedionda
Hi Tech Swiss Machining Inc	2410 LA MIRADA DR, Vista, CA 92083	Medium		3599	332117	Agua Hedionda
Horstman Manufacturing Co Inc	2510 PIONEER AVE, Vista, CA 92083	Medium		3799	336999	Agua Hedionda
Hudson Printing, Inc.	1497 Poinsettia Ave, #153, Vista, CA 92081	Medium	x	2759	323110	Agua Hedionda
Hydrocomponents & Technologies, Inc.	1175 PARK CENTER DR, Suite #H, Vista, CA 92083	Medium		3999	339999	Agua Hedionda
I C P America, Inc.	1070 JOSHUA WAY , Vista, CA 92083	Medium		3676	334415	Agua Hedionda
I W Technologies, Inc.	2446 CADES WAY, Vista, CA 92083	Medium		3999	333319	Agua Hedionda
IDL Tech Tools	2438 Cades Way, Vista, CA 92084	Medium	x	3423	332212	Agua Hedionda
Intellectual Technology, Inc.	1040 JOSHUA WAY, Vista, CA 92083	Medium		3577	334418	Agua Hedionda
J & D Laboratories	2640 PROGRESS ST, Vista, CA 92083	Medium		2834	325412	Agua Hedionda
J Mark Manufacturing Inc	2480 CORAL , Suite #C, Vista, CA 92083	Medium		3499	332312	Agua Hedionda
JAVO Beverage Co.	1311 Specialty Drive, Vista, CA 92084	Medium		2095	311920	Agua Hedionda
Jeld Wen Co. Warehouse	935 Poinsettia Ave, Vista, CA 92083	Medium		4225	493110	Agua Hedionda
Jif-Pak Manufacturing, Inc.	1451 ENGINEER ST, Vista, CA 92083	Medium		3999	31-33	Agua Hedionda
Joseph Webb Foods Inc	1201 PARK CENTER DR, Vista, CA 92083	Medium		5142	422420	Agua Hedionda
Killion Industries Inc	1380 POINSETTIA AVE, Vista, CA 92083	Medium		2541	337215	Agua Hedionda
Killion Industries, Inc.	2811 La Mirada Drive, Vista, CA 92083	Medium		2541	337215	Agua Hedionda
Lemken Kuhlwerk	2330 La Mirada Dr Suite 200, Vista, CA 92081	Medium	x	2434	337110	Agua Hedionda
Lightwave Audio Systems, Inc.	1384 POINSETTIA AVE, Suite #F, Vista, CA 92083	Medium		3679	3343	Agua Hedionda
M Klemme Technology, Corp	1386 POINSETTIA AVE, Suite #A, Vista, CA 92083	Medium		3499	332999	Agua Hedionda
M M Precision Machining	2525 PIONEER AVE, Suite #4, Vista, CA 92083	Medium		3345	333515	Agua Hedionda
Magna Coatings Corp	1440 Decision Street, Vista, CA 92083	Medium		2851	32551	Agua Hedionda
Magnacore Inc.	1386 POINSETTIA AVE, Suite #B, Vista, CA 92083	Medium		3999	339999	Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Manzo's Metal Works	797 North Avenue, #D, Vista, CA 92081	Medium	x	3599	332710	Loma Alta
Martin Enterprises	3235 EXECUTIVE RIDGE DR, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
Meridian Laboratory Inc	1330 N.MELROSE DR, Suite #E, Vista, CA 92083	Medium		3499	332999	Loma Alta
Micronel U.S.	1280 LIBERTY WAY , Vista, CA 92083	Medium		3999	31-33	Agua Hedionda
Mihal Enterprises dba JT- Designs	1250 Activity Dr # E, Vista, CA 92081	Medium	x	3599	332710	Agua Hedionda
Minor Fab	1205 N. Melrose Suite M, Vista, CA 92084	Medium	x	3499	332999	Buena Vista
Modern Medical Supply	1235 Activity Drive, F, Vista, CA 92083	Medium	x	2599	339111	Agua Hedionda
Natural Alternatives Int'l Inc	1215 PARK CENTER DR, Vista, CA 92081	Medium	x	2833	325411	Agua Hedionda
NML, LLC	2575 Pioneer Ave. Suite 105, Vista, CA 92081	Medium	x	3999	339999	Agua Hedionda
Nutritional Engineering Inc.	1208 AVENIDA CHELSEA, Vista, CA 92083	Medium		2834	325412	Agua Hedionda
Oem Production LLC	2875 Scott St 101-102, Vista, CA 92081	Medium	x	3949	339922	Agua Hedionda
Orthodontic Design & Production, Inc.	1370 DECISION ST Suite D, Vista, CA 92081	Medium	x	3843	339114	Agua Hedionda
Pacific Aero Press	1133 LARK HILL DR , Vista, CA 92084	Medium		5731	51113	Buena Vista
Pacific Ceet, Inc.	1220 LIBERTY WAY, Vista, CA 92083	Medium		3999	31-33	Agua Hedionda
Pacific Dream Enterprises, Inc.	1351 DISTRIBUTION WAY, Suite #4, Vista, CA 92083	Medium		2511	337122	Agua Hedionda
Pacific Stair Products	2241 La Mirada Drive, Vista, CA 92081	Medium	x	2541	337212	Agua Hedionda
Palmac Design & Manufacturing	2445 LA MIRADA DR, Vista, CA 92083	Medium		3499	332117	Agua Hedionda
Palmer Natural Products, Inc.	2595 FORTUNE WAY, Vista, CA 92083	Medium		2834	325412	Agua Hedionda
Phoenix Wheel Company, Inc. (HRE	2453 CADES WAY, Suite #A, Vista, CA 92083	Medium		3499	336999	Agua Hedionda
Power Craft Autoparts	452 OLIVE , Suite #L, Vista, CA 92084	Medium		3999	339999	Buena Vista
Pozza Manufacturing Inc.	1185 PARK CENTER DR, Suite #Q, Vista, CA 92083	Medium		3599	333999	Agua Hedionda
Precise Manufacturing	1495 POINSETTIA AVE, Suite #148, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
Print House Inc	2630 PROGRESS ST, Vista, CA 92083	Medium		2759	323113	Agua Hedionda
Pro Designer Plastics Inc Pdp	1260 LIBERTY WAY, Suite #D, Vista, CA 92083	Medium		3089	326199	Agua Hedionda
Promach	2438 Cades Way, Vista, CA 92081	Medium	x	3599	33271	Agua Hedionda
Proteus Dimensional Technologies, Inc	1260 Distribution Way, Vista, CA 92083	Medium	x	3999	339999	Agua Hedionda
Quantum Focus Instruments	990 PARK CENTER DR D, Vista, CA 92083	Medium		3826	3345	Agua Hedionda
R Jesse & Company Inc	1226 KEYSTONE WAY, Vista, CA 92083	Medium		3645	335122	Agua Hedionda
Ray Allen Company, Inc.	2525 PIONEER AVE 8, Vista, CA 92081	Medium		3593	333995	Agua Hedionda
Renee Machine, Inc.	1185 PARK CENTER DR, Suite #E, Vista, CA 92083	Medium		3499	332117	Agua Hedionda
Sandel Avionics, Inc.	2401 DOGWOOD WAY , Vista, CA 92081	Medium		3812	334511	Agua Hedionda
Seber Tech L L C	2438 CADES WAY , Vista, CA 92083	Medium		3999	332999	Agua Hedionda
Security Systems, Inc	2585 FORTUNE WAY, B, Vista, CA 92081	Medium		3629	335999	Agua Hedionda
Sherline Products, Inc.	3235 EXECUTIVE RIDGE DR , Vista, CA 92083-8257	Medium		3553	333210	Agua Hedionda
Skylark Sport Marketing dba, Prana	3275 Corporate View, Vista, CA 92081	Medium		2329	315228	Agua Hedionda
Speedy Cut Inc	2565 PROGRESS ST, Vista, CA 92083	Medium		3499	332117	Agua Hedionda
Stines Machine Inc	2481 CORAL ST, Vista, CA 92083	Medium		3599	332710	Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Stinky FAB.	2588 Progress Street, #15, Vista, CA 92081	Medium		3499	3329999	Agua Hedionda
Tech 22	1160 JOSHUA WAY, Vista, CA 92083	Medium		3679	334418	Agua Hedionda
Tecxel/R Zamora Corp.	2826 LA MIRADA DR, Suite #D, Vista, CA 92083	Medium		3599	33271	Agua Hedionda
Tedco Tool	1175 PARK CENTER DR, Suite #C, Vista, CA 92084	Medium		3728	336413	Agua Hedionda
The Art Of Coffee, Inc.	1311 SPECIALTY DR, Vista, CA 92083	Medium		2095	311920	Agua Hedionda
The Pressroom	843 WILLIAMSTON ST , Vista, CA 92084	Medium		2759	323112	Buena Vista
Tri Digital	1495 POINSETTIA AVE, Suite #144, Vista, CA 92083	Medium		2759	32311	Agua Hedionda
Trinity Innovations	1250 KEYSTONE WAY, Vista, CA 92083	Medium		3993	339999	Agua Hedionda
U S I Inc.	1185 PARK CENTER DR, Suite #0, Vista, CA 92083	Medium		2834	325412	Agua Hedionda
Urgent Signs	2336 La Mirada Dr #1000, Vista, CA 92081	Medium		3933	33995	Agua Hedionda
US Post Office	960 POSTAL WAY, Vista, CA 92084	Medium	x	4311	491110	Buena Vista
Vista Industrial Products Inc	1395 PARK CENTER DR, Vista, CA 92083	Medium		3499	332117	Agua Hedionda
VQS Enterprises, Inc.	1081 Poinsettia Ave., Vista, CA 92083	Medium		2759	323115	Agua Hedionda
W5 Machining, Inc.	2365 OAK RIDGE WAY, Vista, CA 92083	Medium		3545	333515	Agua Hedionda
Western Cnc, Inc	1001 PARK CENTER DR, Vista, CA 92083	Medium		3999	33271	Agua Hedionda
Youngdale Manufacturing Corp	2449 CADES WAY , Vista, CA 92083	Medium		3429	332510	Agua Hedionda
Low Priority Industrial						
Accelerated Learning International	2420 Grand Ave #D2, Vista, CA 92081	Low		5961	45411	Agua Hedionda
Acells Corp	3121 Scott St , Vista, CA 92081	Low		5099	421990	Agua Hedionda
Advance Micro Components Inc	2475 CORAL ST B, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Agrispect, Inc.	2591 PIONEER AVE #B, Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
All In One Recon	734 Valley Crest Dr , Vista, CA 92084	Low		1799	23599	Buena Vista
American Legacy Products, Inc.	2575 FORTUNE WAY, Suite #G, Vista, CA 92083	Low		5099	424430	Agua Hedionda
Argosy Industries Inc	2640 BUSINESS PARK DR , Vista, CA 92083	Low		5063	42161	Agua Hedionda
Aschbrenner, Inc. dba Spectrum Floral	2505 Commerce Way, Vista, CA	Low		5193	45311	Agua Hedionda
Austin Doors (same office-Kaylimd	1351 DISTRIBUTION WAY 1, Vista, CA 92085	Low		1751	235510	Agua Hedionda
B N J Ultraservices, Inc. (Ultra Max)	381 OLIVE AVE, Vista, CA 92083	Low		5169	42269	Buena Vista
Bare Back Skateboards, Inc.	2835 LA MIRADA DR, Suite #B, Vista, CA 92083	Low	x	5091	421910	Agua Hedionda
Briggs Tree Company Inc	1111 POINSETTIA AVE , Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
C P C	1126 N. MELROSE , Vista, CA 92083	Low		5099	42199	Buena Vista
Cal Mex Wholesale Growers & Shipper,	2680 La Mirada Dr, Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
Cal-Americas	2834 LA MIRADA DR , Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
California Breakers, Inc.	2490 GRAND AVE, Vista, CA 92083	Low		5063	42161	Agua Hedionda
California Specialty Produce	1330 KEYSTONE WAY, Suite #A, Vista, CA 92083	Low		5148	42248	Agua Hedionda
Capitol Paving Inc	408 OLIVE AVE, Vista, CA 92083	Low		1799	23599	Buena Vista
Casa Blanca Products	1255 ACTIVITY DR, Suite #D, Vista, CA 92083-8517	Low		5149	42249	Agua Hedionda
Chalice West	1005 EUCALYPTUS AVE , Vista, CA 92084	Low		5091	42199	Buena Vista

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Cms Inc/Spring Parts Div Of Cms Inc.	1341 DISTRIBUTION WAY, Suite #11, Vista, CA	Low		5099	42199	Agua Hedionda
Coastal Express	2680 La Mirada Dr, Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
Control Technology	2416 CADES WAY, Vista, CA 92083	Low		5063	42161	Agua Hedionda
C-SBI changed to: To West Coast	1330 DISTRIBUTION WAY #B, Vista, CA 92083	Low		5193	42293	Agua Hedionda
D D H Enterprise, Inc	2220 OAK RIDGE WAY, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Dils Roofing	2230 La Mirada Dr, Vista, CA 92081	Low		1761	235610	Agua Hedionda
Dos Gringos	3260 Corporate View Dr., Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
Edco Distributing Inc	3150 SCOTT ST, Vista, CA 92083	Low		5099	42199	Agua Hedionda
EMS Construction	3160 SCOTT ST, Vista, CA 92081	Low	x	1761	235610	Agua Hedionda
Exhibitart Displays, Inc.	1250 DISTRIBUTION WAY, Vista, CA 92083	Low		5099	339999	Agua Hedionda
Feng Brothers Usa Group Inc	958 POSTAL WAY 4C, Vista, CA 92083	Low		5091	42199	Buena Vista
Flamingo Holland Inc	1250 AVENIDA CHELSEA, Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
Francis Biddle International, Inc.	2506 PIONEER AVE, Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
Freeberg Industrial Fabrication	985 POINSETTIA AVE, Vista, CA 92083	Low		5084	42183	Agua Hedionda
Futuretronix, Inc.	1489 Poinsettia Ave #134, Vista, CA 92081	Low		5065	421690	Agua Hedionda
Gillco Products Inc	1228 KEYSTONE WAY, Vista, CA 92083	Low		5149	42249	Agua Hedionda
Greentrees Hydroponics, Inc.	2581 PIONEER AVE, Suite #D, Vista, CA 92083	Low		5099	42199	Agua Hedionda
H O Quinlan And Associates	755 VENUS VIEW DR, Vista, CA 92083	Low		5091	42199	Buena Vista
Horticultural Sales, Inc.	1330 DISTRIBUTION WAY #E, Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
H2Odyssey & Ocean Divers USA	975 PARK CENTER DR, Vista, CA 92083	Low		5099	42199	Agua Hedionda
Hippo Golf Company, Inc. (Ca)	2755 DOS AARON WAY, Suite #A, Vista, CA 92083	Low		5091	339920	Agua Hedionda
Horizon Meat & Seafood Of San Diego	980 Park Center Dr #C, Vista, CA 92081	Low		5142	42242	Agua Hedionda
Intaglio Physicians & Surgeons	1260 Avenida Chelsea, Vista, CA 92081	Low		5122	4222	Agua Hedionda
International Poly Bag, Inc	990 PARK CENTER DR G, Vista, CA 92083	Low		5162	42262	Agua Hedionda
Jeannie Hyde Packaging, Inc.	2442 CADES WAY, VISTA, CA 92083	Low		5085	421840	Agua Hedionda
K.O. Enterprises	512 WCALIFORNIA AVE, Vista, CA 92083	Low		1751	23551	Buena Vista
Key Electronics Mfg	1120 SYCAMORE AVE I, Vista, CA 92083	Low		5063	42161	Agua Hedionda
LA CANTINA DOORS, INC.	1340 Specialty Drive, Suite J, Vista, CA 92081	Low		1751	235510	Agua Hedionda
Less Time & More	1236 Activity Dr #A, Vista, CA 92081	Low		5199	42299	Agua Hedionda
Mc Kenzie Distributing	1330 KEYSTONE WAY D, Vista, CA 92083	Low		5141	42241	Agua Hedionda
Nurserymens Exchange, Inc.	1330 Distribution Way, Suite C, Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
Oak Tree Vans LTD	1386 Poinsettia Ave., Suite E, Vista, CA 92081	Low		1799	23599	Agua Hedionda
Orlimar Golf Company	1385 PARK CENTER DR, Vista, CA 92083	Low		5091	31-33	Agua Hedionda
Pacific Microcomputers South	2440 GRAND AVE C, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Palomar Technologies, Inc	2230 OAK RIDGE WAY, Vista, CA 92083	Low		3999	0000	Agua Hedionda
Passion Growers West	1352 Decision St., Vista, Ca 92081	Low	x	5193	42293	Agua Hedionda
Perfect Equation, Inc	3275 CORPORATE VIEW DR, Vista, CA 92081	Low		5961	454110	Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Plangea Cutting, L L C	1487 POINSETTIA AVE, Suite #120, Vista, CA 92083	Low		5137	313312	Agua Hedionda
PlusPharma	2460 Coral St, Vista, CA 92081	Low		5122	422210	Agua Hedionda
Poweron	1185 PARK CENTER DR S, Vista, CA 92083	Low		5063	31-33	Agua Hedionda
Prototypworks	1798 CLUB HEIGHTS LN, Vista, CA 92083	Low		1799	23599	Buena Vista
Qed Information Systems	1120 SYCAMORE AVE 2F, Vista, CA 92083-7803	Low		5063	42161	Agua Hedionda
Quality Laser Source, Inc.	1310 N. MELROSE DR C, Vista, CA 92083	Low		5063	42161	Buena Vista
R K Iron Works	1124 N.MELROSE, Suite #203, Vista, CA 92083	Low		5051	42151	Buena Vista
Redline	2510 Commerce Way, Vista, CA 92083	Low		5013	423120	Agua Hedionda
Robert Jury & Associates	2435 Cades Way, Vista, CA 92081	Low	x	5064	423620	Agua Hedionda
Roma Gourmet Food Ent Of Ca	2825 LA MIRADA DR, Vista, CA 92083	Low		5141	42241	Agua Hedionda
Ruiz Cactus/Javier's	529 Mar Vista, Vista, CA 92083	Low		5193	42293	Agua Hedionda
Semco	1430 VANTAGE CT, Vista, CA 92083-8596	Low		5063	42161	Agua Hedionda
Snacker's Delight, Inc.	1240 ACTIVITY DR C, Vista, CA 92083	Low		5141001	42241	Agua Hedionda
South Coast Components	2440 GRAND AVE C, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Spectra Gases Inc	1261 ACTIVITY DR, Vista, CA 92083	Low		5169	42269	Agua Hedionda
Starline Windows	1350 Specialty Dr, B, Vista, CA 92081	Low	x	1793	235920	Agua Hedionda
Sundance Machinery Sales, Inc.	1489 POINSETTIA AVE, Suite #132, Vista, CA 92083	Low		5084	42183	Agua Hedionda
Sunset Deli Provisions, Inc.	2820 LA MIRADA DR, Vista, CA 92083	Low		5147	42247	Agua Hedionda
Superior Plant Sales Inc	2581 PIONEER AVE #B, Vista, CA 92083	Low	x	5193	42293	Agua Hedionda
T R Tropicals Inc	3110 SCOTT ST, Vista, CA 92083	Low		5193	42293	Agua Hedionda
Technical Tooling & Gage	2598 FORTUNE WAY, Suite #F, Vista, CA 92083	Low		5051	332999	Agua Hedionda
Tempo Research Corp	1390 ASPEN WAY, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Texmate Inc	995 PARK CENTER DR, Vista, CA 92083	Low		5063	42161	Agua Hedionda
Tritton Technologies, Inc.	1340 Specialty Drive #B, Vista, CA 92081	Low		5045	421430	Agua Hedionda
West Coast Refrigerated Trucking	1330 Distribution Way, Suite B, Vista, CA 92081	Low	x	5193	42293	Agua Hedionda
Wrought Iron Concepts, Inc.	1124 North Melrose Drive, Vista, CA 92083	Low		1799	23599	Buena Vista
Ziphouse, LLC	1330 Specialty Dr, D, Vista, CA 92081	Low		5162	422610	Agua Hedionda
Zuitsports, Inc.	2880 Scott Stree, #101-102, Vista, CA 92081	Low		5136	42232	Agua Hedionda
Potential Medium/Low Priority Industrial						
Abramo Industrial Design & Mfg.	1341 DISTRIBUTION WAY, Suite #21, Vista, CA	Potential				Agua Hedionda
Auspex Pharmaceuticals	1261 LIBERTY WAY C, Vista, CA 92083	Potential			8731009	Agua Hedionda
Bodyworks Inc.	981 PARK CENTER DR, Vista, CA 92083	Potential			5047015	Agua Hedionda
Crown Industrial Products, Inc.	1785 Park Center DR G, Vista, CA 92083	Potential				Agua Hedionda
Fabstall, Inc.	1124 N. Melrose Dr., 203, Vista, CA 92083	Potential		3312		
Int L Industrial Develop Org	1280 LIBERTY WAY D, Vista, CA 92083	Potential				Agua Hedionda
M C C Enterprises, Inc	1201 PARK CENTER DR, Vista, CA 92083	Potential		5144		Agua Hedionda

Appendix B-1
2006-07 Industrial Inventory

Business Name	Street Address	Priority	Inspected	SIC	NAIC	Watershed
Maniatech	1198 JOSHUA WAY , Vista, CA 92083	Potential			8734001	Agua Hedionda
Pacific Pride Carwash Co., Inc.	925 Poinsettia Ave., #17, Vista, CA 92083					
Pro Bio Sensor	2420 Grand Ave., B1, Vista, CA 92081	Potential		3391		
Scientific Solutions	1260 Activity Dr, D., Vista, CA 92081	Potential			54171	
Structural Materials Co.	2270 La Mirada Dr., Vista, CA 92084	Potential			42333	
United Site Services Of Ca, Inc.	157 Nettleton Rd., Vista, CA 92083	Potential		493		
Western Tectrix Rv Manufacturing Inc.	2598 FORTUNE WAY G, Vista, CA 92083	Potential			8733008	Agua Hedionda

APPENDIX B-2
2005-06 HIGH PRIORITY INDUSTRIAL INVENTORY -
BUSINESSES INSPECTED

Business Name	Street Address	Inspected	Final Priority	Watershed
A M Chemicals, LLC	721 Sunset Drive	N/A	Moved/OOB	Agua Hedionda
American K9 Equipment	1982 Harmony Way, Vista, CA 92081	3/23/2006	Moved/OOB	Agua Hedionda
Applied Control Concepts, Inc.	1209 Activity Dr., Vista, CA 92081	3/1/2006	Medium Industrial	Agua Hedionda
Armorcrafft Off-Road Corp	2312 La Mirada Dr., Vista, CA 92081	3/22/2006	Medium Industrial	Agua Hedionda
Arshia Custom Cabinets	2525 Pioneer Ave, Suite 5, Vista, CA 92081	3/16/2006	Medium Industrial	Agua Hedionda
BOJ	611 MERCANTILE STREET, VISTA, CA 92083	3/8/2006	Medium Industrial	Buena Vista
Brothers Millworks Corp	1335 PARK CENTER Dr, Suite #B, Vista, CA 92083	3/15/2006	Moved/OOB	Agua Hedionda
C ENTERPRISES, LP	2445 Cades Way, Vista, CA 92081	3/6/2006	High Industrial	Agua Hedionda
CERCOM, INC. (BAE Systems)	991 PARK CENTER DR, Vista, CA 92083	3/17/2006	High Industrial	Agua Hedionda
CNC Dynamics	1209 Activity Dr., Vista, CA 92081	3/1/2006	Duplicate	Agua Hedionda
Cookies Con Amore	2330 La Mirada Dr., Suite 700, Vista, CA 92081	3/6/2006	Medium Industrial	Agua Hedionda
DA Design	830 E. Vista Way, Suite 115, Vista, CA 92084	3/21/2006	Low Commercial	Buena Vista
E&J Stone	795 North Dr., Vista, CA 92081	3/27/2006	High Industrial	Agua Hedionda
**Elixir Steel Framing Corp	2611 Commerce Way, Suite D, Vista, CA 92081	3/28/2006	High Industrial	Agua Hedionda
Excellent Coatings Inc	1285 DISTRIBUTION WAY, Vista, CA 92083-8817	3/13/2006	High Industrial	Agua Hedionda
Ferro Electronic Materials Systems	1395 ASPEN WAY, Vista, CA 92083	3/2/2006	High Industrial	Agua Hedionda
George and Shirley	1116 Bluegrass Rd., Vista, CA 92083	3/21/2006	Moved/OOB	Buena Vista
H2O F/X	1230 Activity Drive E & F, Vista, CA 92081	3/13/2006	Medium Industrial	Agua Hedionda
HERITAGE SASH & DOOR INC	1330 N. Melrose Drive, Vista, CA 92083	3/10/2006	Moved/OOB	Buena Vista
Hudson Printing, Inc	1497 Poinsettia Ave., Suite 153, Vista, CA 92081	3/16/2006	Medium Industrial	Agua Hedionda
IDL Tech Tools	2438 Cades Way, Vista, CA 92081	3/2/2006	Medium Industrial	Agua Hedionda
Jensen Meat Co Inc	2525 BIRCH ST, Vista, CA 92083	3/22/2006	High Industrial	Agua Hedionda
Lance Kjeldsen Trim Design	906 Mason Rd., Vista, CA 92084	2/28/2006	Not in City	Guajome
Lee Steel & Supply	1305 LEE DR, Vista, CA 92083	3/27/2006	High Industrial	Loma Alta
Lee's Iron Inc	1315 LEE DR, Vista, CA 92083	3/27/2006	High Industrial	Loma Alta
Make-it-take-it-workshop	1280 Hacienda Dr, Suite G-1, Vista, CA 92081	3/16/2006	Low Commercial	Agua Hedionda
Manzo's Metal Works	797 North Ave., Suite C, Vista, CA 92081	3/27/2006	Medium Industrial	Agua Hedionda
Mihal Entreprises	1250 Activity Dr., Suite E, Vista, CA 92081	3/13/2006	Medium Industrial	Agua Hedionda
Minor Fab	1205 N. Melrose Dr., Suite M, Vista, CA 92084	3/9/2006	Medium Industrial	Buena Vista
Nu Blocks, LLC	2420 Grand Ave., Suite B1, Vista, CA 92081	3/23/2006	High Commercial	Agua Hedionda
OSMONICS (GE)	760 Shadowridge Dr., Vista, CA 92083	3/24/2006	High Industrial	Agua Hedionda
Pacific Lead Products, Inc.	793 NORTH AVE, Suite #D, Vista, CA 92083	3/27/2006	High Industrial	Buena Vista
PACIFIC STAIR PRODUCTS	2241 La Mirada Drive, Vista, CA 92081	3/28/2006	Medium Industrial	Agua Hedionda
Pole-kat Of San Diego	416 Avalon Dr., Vista, CA 92084	3/1/2006	Low Commercial	Agua Hedionda
Power Mower	1830 S. Santa Fe Ave., Vista, CA 92083	3/27/2006	Not in City	Buena Vista
Print Inc	1225 PARK CENTER DR, Suite #A, Vista, CA 92083	3/15/2006	High Industrial	Agua Hedionda
Professional Water Tech, Inc.	2420 GRAND AVE, Suite #A, Vista, CA 92083	3/6/2006	Moved/OOB	Agua Hedionda
Quality Discount Ice Cream Inc	2465 CORAL ST, Vista, CA 92083	3/2/2006	High Industrial	Agua Hedionda
Racing Cages	2865 Scott St., Suites 106-107, Vista, CA 92081	3/28/2006	Medium Industrial	Agua Hedionda
Rayzist Photomask Inc	955 PARK CENTER DR, Vista, CA 92083	3/17/2006	High Industrial	Agua Hedionda

APPENDIX B-2
2005-06 HIGH PRIORITY INDUSTRIAL INVENTORY -
BUSINESSES INSPECTED

Business Name	Street Address	Inspected	Final Priority	Watershed
Reybro Inc dba	149 NETTLETON RD, Vista, CA 92083	3/28/2006	High Industrial	Buena Vista
Rivera's Iron Work	2534 Santa Fe Drive	N/A	Not in City	Agua Hedionda
Roadway Express Inc.	1392 Engineer St., Vista, CA 92081	3/13/2006	High Industrial	Agua Hedionda
Robert Jury and Associates	2635 Cades Way, Vista, CA 92081	3/2/2006	Low Industrial	Agua Hedionda
Shadowridge Water Reclamation Facility	2525 LUPINE HILLS RD, Vista, CA 92083	3/17/2006	High Industrial	Agua Hedionda
Sonik Messaging Systems, Inc.	2310 Cousteau Ct., Vista, CA 92081	3/21/2006	Moved/OOB	Agua Hedionda
Spring Air	760 Las Palmas Drive	N/A	Home based retail	Agua Hedionda
Starline Windows	1350 Speciality Dr., Suite B, Vista, CA 92081	3/23/2006	Low Industrial	Agua Hedionda
Summit Windows And Patio Doors	2760 PROGRESS ST, Vista, CA 92083	3/23/2006	High Industrial	Agua Hedionda
Trek Bicycle Superstore	2123 Industrial Ct., Vista, CA 92081	3/21/2006	Low Commercial	Agua Hedionda
Underground Precast Solutions	420 Hillway Dr., Vista, CA 92084	3/21/2006	Low Commercial	Buena Vista
US Post Office	960 POSTAL WAY, Vista, CA 92084	3/7/2006	Medium Industrial	Buena Vista
Watkins Manufacturing Corp	1280 PARK CENTER DR, Vista, CA 92083	3/15/2006	High Industrial	Agua Hedionda
Westbridge Research Group	1150 JOSHUA WAY, Vista, CA 92083	3/17/2006	High Industrial	Agua Hedionda
Z Woodwork	2512 S. Santa Fe Ave., Suite 3, Vista, CA 92083	3/27/2006	Not in City	Buena Vista

** This business moved out of Vista by the end of the 05-06 reporting period.

APPENDIX B-3
CHANGES/ASSIGNMENTS OF JURMP PRIORITY

#	Business Name	Street Address	Assigned Priority	Recommended Priority
1	A Smog Test Only	414 N. Santa Fe Ave. Suite A, Vista, Ca 92083	Unassigned	High Commercial
2	A W R/Racing Cages	2865 Scott St., Suites 106-107	High Industrial	Medium Industrial
3	Alta Mechanic	446 Olive Ave, Suites F & G, Vista, Ca 92083	Unassigned	High Commercial
4	Applied Control Concepts / CNC Dynamics	1209 Activity Dr., Vista, Ca 92081	High Industrial	Medium Industrial
5	Armorcraft Off-Road Corp	2312 La Mirada Dr	High Industrial	Medium Industrial
6	Arshia Custom Cabinets	2525 Pioneer Ave, Suite 5	High Industrial	Medium Industrial
7	Baja Sessions Catering	462 W Los Angeles	High Commercial	Low Commercial
8	Bare Back Skateboards, Inc.	2835 La Mirada Dr	Medium Industrial	Low Industrial
9	Best Choice Towing	446 Olive Ave., Suite H, Vista, Ca 92083	High Commercial	Low Commercial
10	BOJ	611 Mercantile Street, Vista, Ca 92083	High Industrial	Medium Industrial
11	Cookies Con Amore	2330 La Mirada Dr, #700 Vista, Ca 92081	High Industrial	Medium Industrial
12	D' Elegantes	2004 E Vista Way	High Commercial	Low Commercial
13	DA Design	830 E Vista Way, Suite 115, Vista, Ca 92084	High Industrial	Low Commercial
14	Dreifuss Enterprises, Inc. (Vista Auto & Tire)	414-428 N Santa Fe Ave., Vista, Ca 92083	High Commercial	Low Commercial
15	Dulceria La Comena	1219 N Santa Fe Ave., Suite A	High Commercial	Low Commercial
16	EMS Construction	3160 Scott St.	Medium Industrial	Low Industrial
17	H2O F/X	1230 Activity Dr., E & F	High Industrial	Medium Industrial
18	Hudson Printing, Inc	1497 Poinsettia Ave., Suite 153	High Industrial	Medium Industrial
19	IDL Tech Tools	2438 Cades Way, Vista, Ca 92081	High Industrial	Medium Industrial
20	Juanita's Barbacoa	1510 Merlot Ct Vista, CA 92083	High Commercial	Low Commercial
21	Juan's Auto Electric	808 N Santa Fe Ave, Suite B	Unassigned	High Commercial
22	Kabab Cuisine	1688 S Melrose Dr. # 206, Vista, CA 92083	Unassigned	High Commercial
23	Kragen Auto Parts	1250 S Santa Fe Ave, Suite A, Vista, Ca 92084	Unassigned	High Commercial
24	Magoo's Pub	1330 N Santa Fe Ave	High Commercial	Low Commercial
25	Make-it-take-it-workshop	1280 Hacienda Drive, Suite G-1	High Industrial	Low Commercial

APPENDIX B-3 (Continued)**CHANGES/ASSIGNMENTS OF JURMP PRIORITY**

#	Business Name	Street Address	Assigned Priority	Recommended Priority
26	Manzo's Metal Works	797 North Ave., Suite C	High Industrial	Medium Industrial
27	Mariscos El Pacifico	702 S Santa Fe Ave., Vista, Ca 92084	Unassigned	High Commercial
28	MDW Management	2598 Fortune Way, Suite C	High Commercial	Low Commercial
29	Mihal Enterprises dba JT- Designs	1250 Activity Dr., Suite E	High Industrial	Medium Industrial
30	Minor Fab	1205 N Melrose Dr, Suite M, Vista, Ca 92084	High Industrial	Medium Industrial
31	Nu Blocks, LLC	2420 Grand Ave, Suite B1	High Industrial	High Commercial
32	PACIFIC STAIR PRODUCTS	2241 La Mirada Dr	High Industrial	Medium Industrial
33	Pole-kat Of San Diego	416 Avalon Dr, Vista, Ca 92084	High Industrial	Low Commercial
34	Robert Jury and Associates	2435 Cades Way, Vista, Ca 92081	High Industrial	Low Industrial
35	Ron's Mobile Car Care	1303 Coventry Road	High Commercial	Low Commercial
36	Scotland Yard	837 Williamston St	High Commercial	Low Commercial
37	Starline Windows	1350 Speciality Dr, Suite B	High Industrial	Low Industrial
38	The Main Dish	1515 S Melrose Dr, Suite #96, Vista, CA 92083	High Commercial	Low Commercial
39	Trek Bicycle Superstore	2123 Industrial Ct.	High Industrial	Low Commercial
40	Underground Precast Solutions	420 Hillway Dr.	High Industrial	Low Commercial
41	US Post Office	960 Postal Way, Vista, Ca 92084	High Industrial	Medium Industrial
42	Vista Wine and Spirits	755 Shadowridge Dr, Vista, Ca 92083	High Commercial	Low Commercial

APPENDIX B-3 (continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
1	A W R	2865 Scott Street, #106,107, Vista, Ca 92081	Duplicate
2	Advance Auto Center	1352 N Melrose Dr, Suite L, J & K, Vista, Ca 92083	Duplicate
3	Apro Llc. #30	485 N Melrose Dr, Vista, Ca 92083	Duplicate
4	Barnicles Express Gasoline	845 E Vista Way, Vista, Ca 92084	Duplicate
5	CNC Dynamics	1209 Activity Dr., Vista, Ca 92081	Duplicate
6	Cortez Chavez Tacos ¹	365 Olive Ave., Vista, Ca 92083	Duplicate
7	El Jaliciencia Food Serv ¹	365 Olive Ave., Vista, Ca 92084	Duplicate
8	Equilon Enterprises, LLC	400 Sycamore Ave, Vista, Ca 92083	Duplicate
9	Fiesta Giant Pizza	1110 N Santa Fe Ave, I, Vista, Ca 92083	Duplicate
10	Foodmaker Inc 3002	740 Sycamore Ave, Vista, Ca 92085	Duplicate
11	Indian Catering ¹	365 Olive Ave., Vista, Ca 92083	Duplicate
12	JJ's Pub	1330 N Santa Fe Ave, Vista, Ca 92083	Duplicate
13	Midas Auto Service	1006 Service Place, Vista, Ca 92083	Duplicate
14	Petitfor Bake Shop	203 Main St, Vista, Ca 92083	Duplicate
15	Subway	1651 S Melrose Dr, Suite #B, Vista, Ca 92083	Duplicate
16	The Picket Fence	945 S Santa Fe Ave, Vista, Ca 92083	Duplicate
17	Vince's Auto Repair	727 E Vista Way, Vista, Ca 92084	Duplicate
18	Vista Smog	245 N Emerald Drive, Suite B, Vista, Ca 92083	Duplicate
19	Vista Towing	810 N Santa Fe Ave, Vista, Ca 92083	Duplicate
20	Vista Way Cafe	868 E Vista Way, Vista, Ca 92084	Duplicate
21	AMERICAN SPORT BIKE	1341 Distribution Way #22 Vista, Ca 92081	Low Commercial
22	Baja Sessions Catering	462 W Los Angeles	Low Commercial
23	Best Choice Towing	446 Olive Ave., Suite H, Vista, Ca 92083	Low Commercial
24	D' Elegantes	2004 E Vista Way	Low Commercial
25	DA Design	830 E Vista Way, Suite 115, Vista, Ca 92084	Low Commercial
26	Dreifuss Enterprises, Inc. (Vista Auto & Tire)	414-428 N Santa Fe Ave., Vista, Ca 92083	Low Commercial

APPENDIX B-3 (Continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
27	Juanita's Barbacoa	1510 Merlot Ct Vista, Ca 92083	Low Commercial
28	Make-it-take-it-workshop	1280 Hacienda Drive, Suite G-1. Vista, Ca 92081	Low Commercial
29	MDW Management (<i>listed on the City's inspection list as "Little Canyon Ranch"</i>)	2598 Fortune Way, Suite C	Low Commercial
30	Pole-kat Of San Diego	416 Avalon Dr, Vista, Ca 92084	Low Commercial
31	Ron's Mobile Car Care	1303 Coventry Road	Low Commercial
32	Spring Air	760 Las Palmas Dr, Vista, Ca 92081	Low Commercial
33	The Main Dish	1515 S Melrose Dr, Suite #96, Vista, Ca 92083	Low Commercial
34	Trek Bicycle Superstore	2123 Industrial Ct.	Low Commercial
35	Underground Precast Solutions	420 Hillway Dr.	Low Commercial
36	United Fleet Service	1460 Clarence Dr., Vista, Ca 92083	Low Commercial
37	A Little Taste Of Italy	1910 Shadowridge Dr, Suite #101, Vista, Ca 92083	Moved, Replaced
38	Affordable Mufflers	810 N Santa Fe Ave., Vista, Ca 92083	Moved, Replaced
39	Arrow Medical Products	2865 Scott Street, Suite 105, Vista, Ca 92081	Moved, Replaced
40	AutoCare USA	414 N Santa Fe Ave., Suite A, Vista, Ca 92083	Moved, Replaced
41	Automotive Excellence	1740 E Vista Way, Vista, Ca 92084	Moved, Replaced
42	Bananas, Fruits & Salads, Inc.	1116-F Sycamore Ave, #C-102 Vista, Ca 92081	Moved, Replaced
43	Bob's Quality Auto And Fleet Service	1352 N Melrose Dr, Suite G, Vista, Ca 92083	Moved, Replaced
44	China Boat Restaurant	770 Sycamore Ave, Suite #F, Vista, Ca 92083	Moved, Replaced
45	Corner Office Deli	2260 Oak Ridge Way Suite B, Vista, Ca 92083	Moved, Replaced
46	Creative Garage Systems Plus	1185 Park Center Dr., #19, Vista, Ca 92081	Moved, Replaced
47	Danato's	1280 E Vista Way, Suite #1, Vista, Ca 92084	Moved, Replaced
48	Doc Auto	538 Olive Ave., Suite A, Vista, Ca 92083	Moved, Replaced
49	El Grullense	365 Olive Ave., Vista, Ca 92083	Moved, Replaced
50	Fernando Sons Fer's Auto Repair	452 Olive Ave., Suite K, Vista, Ca 92083	Moved, Replaced
51	Flame And Fusion, C A	2525 Pioneer Ave, Suite #5 Vista, Ca 92083	Moved, Replaced

APPENDIX B-3 (Continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
52	Fluidity, Inc.	2466 Grand Ave., Vista, Ca 92081	Moved, Replaced
53	Hilberto's Mexican Food	760 E Vista Way, Vista, Ca 92069	Moved, Replaced
54	Impressions Culinary at its Finest	1589 E Vista Way, Suite B	Moved, Replaced
55	J & H Grinding	1338 N Melrose Dr, Suite #E Vista, Ca 92083	Moved, Replaced
56	J & J Automotive	705 S Santa Fe Ave., Vista, Ca 92083	Moved, Replaced
57	J & M NY Style Pizza	749 Shadowridge Dr, Vista, Ca 92083	Moved, Replaced
58	Jimmy D's Deli	2515 Pioneer Ave., Suite #5, Vista, Ca 92083	Moved, Replaced
59	Joseph's Fine Food	986 E Vista Way, Vista, Ca 92084	Moved, Replaced
60	Just Smog Test Only	808 N Santa Fe Ave., Vista, Ca 92083	Moved, Replaced
61	K. C. Panda	702 S Santa Fe Ave, Vista, Ca 92084	Moved, Replaced
62	La Palma	435 N Santa Fe Ave, Vista, Ca 92084	Moved, Replaced
63	LC Towing	427 Redlands Street	Moved, Replaced
64	Little Panda	702 S Santa Fe Ave, Vista, Ca 92084	Moved, Replaced
65	Lou's Auto & Radiator Repair	1134 N Melrose Dr, Suite 601, Vista, Ca 92083	Moved, Replaced
66	Love Those Donuts	1289 E Vista Way, Vista, Ca 92084	Moved, Replaced
67	Lucky China Buffet	770 Sycamore Ave, Suite #E&F, Vista, Ca 92083	Moved, Replaced
68	Lucky Transmission	1025 Service Place, Suite 101, Vista, Ca 92084	Moved, Replaced
69	Luminore, Inc.	2575 Fortune Way, Suite D&E, Vista, Ca 92081	Moved, Replaced
70	Mariscos El Rey	702 S Santa Fe Ave, Vista, Ca 92084	Moved, Replaced
71	Michoacan Catering	365 Olive Ave., Vista, Ca 92084	Moved, Replaced
72	Molino's Bakery	1275 S Santa Fe Dr., 108, Vista, Ca 92083	Moved, Replaced
73	Monaco's Motor Works	635 Mercantile Street, Suite A, Vista, Ca 92083	Moved, Replaced
74	Mx Auto Repair	446 Olive Ave., Suite F&G, Vista, Ca 92083	Moved, Replaced
75	Panache Catering Company	203 Main St, Vista, Ca 92084	Moved, Replaced
76	Papa Murphy's Take 'n Bake Pizza	1621 S Melrose Dr, Suite #G, Vista, Ca 92083	Moved, Replaced

APPENDIX B-3 (Continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
77	Professional Water Tech, Inc. <i>(listed as "(M)Professional Water Tech, Inc." on the City's inspection list)</i>	2420 Grand Ave, Suite #A, Vista, Ca 92083	Moved, Replaced
78	Rose Marie Baeza - Neuchatel Bakery	1072 E Vista Way, Vista, Ca 92084	Moved, Replaced
79	Round Table Pizza dba Round Table	1680 S Melrose Dr, Suite #110, Vista, Ca 92083	Moved, Replaced
80	Ruben's Best Mexican Food	1651 S Melrose Dr, Suite D, Vista, Ca 92083	Moved, Replaced
81	Rucker's Four Corners Catering/	1072 E Vista Way, Vista, Ca 92084	Moved, Replaced
82	Sachi Japanese Restaurant	530 Hacienda Drive, Suite 104, Vista, Ca 92081	Moved, Replaced
83	Spectrum Services Catering	525 W Vista Way, Vista, Ca 92083	Moved, Replaced
84	Speedy J. Transmissions	1352 N Melrose Dr, #E Vista, Ca 92083	Moved, Replaced
85	Super China Buffet	1040 E Vista Way, Vista, Ca 92084	Moved, Replaced
86	Taco's Mario	365 Olive Ave., Vista, Ca 92083	Moved, Replaced
87	The Coffee Cart 1	2067 W Vista Way	Moved, Replaced
88	The Haunted Haven	1956 Hacienda Dr, Vista, Ca	Moved, Replaced
89	The Olive Tree Ristorante	1688 S Melrose Dr, Suite 206, Vista, Ca 92083	Moved, Replaced
90	The Quick Wok	800 Escondido Ave., Suite F, Vista, Ca 92083	Moved, Replaced
91	Tokaj Hungarian Cuisine	1717 E Vista Way, Suite #01-10, Vista, Ca 92084	Moved, Replaced
92	Verela's Auto Repair	635 Mercantile Street, Suite B, Vista, Ca 92083	Moved, Replaced
93	Whata Pizza	1839 W Vista Way, Suite #B	Moved, Replaced
94	A M Chemicals, L L C	721 Sunset Dr, Vista, Ca 92081	Moved, Vacant
95	American K9 Equipment	1982 Harmony Way	Moved, Vacant
96	Arco AM PM	745 S Santa Fe Ave., Vista, Ca 92083	Moved, Vacant
97	Auto Electric Repair	1330 N Melrose Dr, Suite G, Vista, Ca 92083	Moved, Vacant
98	Awesome Dogs	139 Pawne Dr, Vista, Ca 92084	Moved, Vacant
99	Blue Moon Cocktail Lounge	1078 E Vista Way, Vista, Ca 92084	Moved, Vacant
100	Brothers Millworks Corp	1335 Park Center Dr, Suite #B, Vista, Ca 92083	Moved, Vacant
101	Bruce Matters Fabricating	512 W California Ave, Suite #115, Vista, Ca 92083	Moved, Vacant

APPENDIX B-3 (Continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
102	Bruno's Chevron Station	244 N Emerald Drive, Vista, Ca 92083	Moved, Vacant
103	Chuck's Custom Carb's	446 N Olive Ave., Suite D, Vista, Ca 92083	Moved, Vacant
104	Coco's	1810 University Dr, Vista, Ca 92083	Moved, Vacant
105	Dan's Mobile Mechanic	2065 White Birch Dr.	Moved, Vacant
106	Emerald Mobil DBA Kordco, Inc.	170 N Emerald Drive, Vista, Ca 92083	Moved, Vacant
107	Geo Pritchard Service	1370 Sunset Dr, Vista, Ca 92081	Moved, Vacant
108	George And Shirley	1116 Bluegrass Rd	Moved, Vacant
109	Golden Car Repair	446 Olive Ave., Suite D, Vista, Ca 92084	Moved, Vacant
110	Heritage Sash & Door Inc	1330 N Melrose Dr, Vista, Ca 92083	Moved, Vacant
111	Hi-Tec Transmissions	1903 W Vista Way, Suite B	Moved, Vacant
112	Issac's Bakery Deli	1680 S Melrose Dr, #101 Vista, Ca 92081	Moved, Vacant
113	Joshua Bowman	1304 N Melrose Dr., Suite F, Vista, Ca 92083	Moved, Vacant
114	Koffee Kottage	1092 E Vista Way, Vista, Ca 92084	Moved, Vacant
115	La Fiesta De Jalisco	365 Olive Ave., Vista, Ca 92083	Moved, Vacant
116	Mandarin Buffet	918 S Santa Fe Ave, Vista, Ca 92084	Moved, Vacant
117	Mobile Truck Repair	622 Roca Pl.	Moved, Vacant
118	Nu-Life Auto Care	1915 W Vista Way, Suite 131	Moved, Vacant
119	Peking Wok Chinese Restaurant	1241 E Vista Way, Vista, Ca 92084	Moved, Vacant
120	Rancho Buena Vista 76	(unknown)	Moved, Vacant
121	Restaurante San Salvador	508 S Santa Fe Ave, Vista, Ca 92083	Moved, Vacant
122	Sicilianos Ristorante Italiano	1233 E Vista Way, Vista, Ca 92084	Moved, Vacant
123	Simply Nina's	1233 E Vista Way, Vista, Ca 92084	Moved, Vacant
124	Sonik Messaging Systems, Inc.	2310 Cousteau Ct.	Moved, Vacant
125	Tri City Towing & Transport	1210 N Melrose Dr, Suite G	Moved, Vacant
126	Tropicana Market	829 N Santa Fe Ave.	Moved, Vacant
127	Victor's Brake & Auto Specialist	402 Olive Ave., Suite A, Vista, Ca 92083	Moved, Vacant

APPENDIX B-3 (Continued)

BUSINESSES TO BE REMOVED FROM THE JURMP INVENTORY

#	Business Name	Business Address	Reason
128	Vista Industrial Catering Inc	365 Olive Ave., Vista, Ca 92083	Moved, Vacant
129	Wingstop Restaurant	35 Main St., Vista, Ca 92083	Moved, Vacant
130	Lance Kjeldsen Trim Design	906 Mason Rd, Vista, Ca 92084	Not in City Jurisdiction
131	Marvin's Pizza & Mexican Food	2002 Santa Fe Ave, Suite #1	Not in City Jurisdiction
132	Power Mower	1830 S Santa Fe Ave.	Not in City Jurisdiction
133	Rivera's Iron Work	2534 Santa Fe Dr., Vista, Ca 92083	Not in City Jurisdiction
134	Z Woodwork	2512 S Santa Fe Ave., Suite 3	Not in City Jurisdiction

APPENDIX B-4

D. POLLUTANT DISCHARGE POTENTIAL ASSESSMENT

Site Name: _____

Pollutant	RW 303(d) (Y/N)	WS COC (Y/N)	PDP	Sources Needing More BMPs							Recommended BMPs (check if applicable)			
				Trash Area	Material Storage	Prkng Lot	Load/ Unload	Land- scape	Veh/Equip Maint	Exposed Work Area	Emp. Training	House- keeping	Minor Struct.	Major Struct.
Sediments														
Nutrients														
Aluminum														
Iron														
Heavy Metals														
Check if evidence indicates specific metals may have significant PDPs: <input type="checkbox"/> Copper <input type="checkbox"/> Cadmium <input type="checkbox"/> Lead <input type="checkbox"/> Zinc <input type="checkbox"/> Mercury														
Organic Compounds														
Check if evidence indicates there may be historical soil contamination associated with any of the following: <input type="checkbox"/> PCBs <input type="checkbox"/> PAHs <input type="checkbox"/> Chlordane <input type="checkbox"/> DDT														
Trash & Debris														
Oxygen Demanding														
Oil & Grease														
Bacteria & Viruses														
Pesticides														
Check if evidence indicates the following are used on site: <input type="checkbox"/> Diazinon <input type="checkbox"/> Chlorpyrifos														
Acid/Base (pH effects)														
Others (list):														

"RW 303(d)" = Receiving water impairments, as listed in the most recent 303(d) list

"WS COC" = High priority watershed constituents of concern (COC), as listed in the most recent WURMP Annual Report

"PDP" = pollutant discharge potential.

"Emp. Training" = employee training activities focused on storm water pollution prevention

"Housekeeping" = standard good housekeeping BMPs, such as sweeping, regular trash pickup, etc.

"Minor Struct." = minor structural BMPs that do not require building permits, such as covering with tarps or building berms

"Major Struct." = major structural BMPs that require a building permit or are especially expensive, such as detention basins, oil/water separators, grease interceptors, overhead coverage for storage areas, etc.

Criteria

- 0 - no appreciable quantity observed on site
- 1 - very small potential for pollutant discharge; monitoring results* are well below the EPA benchmark
- 2 - Small potential for pollutant discharge; monitoring results* are close to the EPA benchmark but still below it
- 3 - Moderate potential for pollutant discharge; monitoring results* are at or slightly above the EPA benchmark
- 4 - Large potential for pollutant discharge; monitoring results* above the EPA benchmark but are within an order of magnitude
- 5 - Severe potential for pollutant discharge; monitoring results* exceed the EPA benchmark by an order of magnitude or more

* if available

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
Note: Businesses that did not receive full inspections and businesses initially assigned to the commercial category were not included in this table, unless there was specific Industrial Permit commentary.							
1	A W R/Racing Cages	2865 Scott St., Suites 106-107					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
2	Advance Web Offset	2260 Oak Ridge Way					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
3	Aperio Technologies Inc	1430 Vantage Ct.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
4	Armorcraft Off-Road Corp	2312 La Mirada Dr					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
5	Arshia Custom Cabinets	2525 Pioneer Ave, Suite 5					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
6	Bare Back Skateboards, Inc.	2835 La Mirada Dr					This business is no longer subject to the Industrial Permit because it no longer conducts manufacturing activities onsite. All manufacturing activity has been moved to Tijuana. The facility is now used strictly for wholesaling.
7	BOJ	611 Mercantile Street				✓	This business is conditionally subject to the Industrial Permit. At the time of inspection, only very minor BMPs were necessary for the business to gain exemption from the Industrial Permit on the basis of no outdoor exposure. Notice of Non-Applicability (NONA) and No Exposure Certification (NEC) paperwork was distributed, but had not yet been completed at the time of inspection.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
8	C Enterprises LP	2445 Cades Way	✓	✓	✓ *		This business, which is unconditionally subject to the Industrial Permit, has been instructed to file a Notice Of Intent (NOI) and to develop a SWPPP. As noted earlier in this report, the business completed No Exposure Certification paperwork designed specifically for facilities covered under the Industrial Permit that wish to gain exemption from storm water monitoring; pending compliance with the Industrial Permit and approval of the No Exposure Certification by the RWQCB, the business may gain exemption from storm water monitoring requirements.
9	CERCOM, INC. (BAE Systems)	991 Park Center Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and storm water monitoring program. A chain-of-custody form confirmed that samples had been submitted, but the most current monitoring results were unavailable for review, as the lab had not yet returned them.
10	CH Products	970 Park Center Dr.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
11	CNC Dynamics	1209 Activity Dr., Vista, Ca 92081					Note that this business has been consolidated in the JURMP inventory with Applied Control Concepts, as it was found to essentially be a duplicate of this business; both businesses were eligible for exemption from the Industrial Permit at the time of inspection and NONA-NEC paperwork was completed onsite.
12	CNC Dynamics/Applied Control Concepts	1209 Activity Dr., Vista, Ca 92081					As noted earlier, "CNC Dynamics" has been consolidated with "Applied Control Concepts" for the purposes of inventory and inspection. Both businesses were eligible for exemption from the Industrial Permit at the time of inspection and NONA-NEC paperwork was completed onsite.
13	Cookies Con Amore	2330 La Mirada Dr, #700					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
14	D J Orthopedics, L L C	2985 Scott St.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
15	Dutek Inc.	2248 Oak Ridge Way					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
16	E&J Stone	795 North Dr.	✓	✓	✓ *		This business is unconditionally subject to the Industrial Permit; however, there is no outdoor exposure at the facility. The business must file an NOI and develop a SWPPP and storm water monitoring program. *The business may choose to file a No Exposure Certification (NEC) once the NOI, SWPPP, and storm water monitoring program are in place. If the NEC is approved by the RWQCB, sampling may not be required due to no outdoor exposure.
17	Earthlite Massage Tables Inc dba	3210 Executive Ridge Dr., Vista, Ca 92081				✓ *	As no one was available for contact at the time of the site visit and an inspection could not be conducted, the current compliance status of this business is not known. *During the previous inspection, the business was recommended to complete NONA/NEC paperwork in order to gain exemption from the Industrial Permit.
18	Elixir Steel Framing Corp	2611 Commerce Way, Suite D	✓	✓	✓		This business is conditionally subject to the General Industrial Permit, is currently not eligible for exemption, and is unlikely to be able to cover or contain their materials. The business must file an NOI and develop a SWPPP and storm water monitoring program. --Note that the business is reportedly moving to Mexico in one month.
19	EMS Construction	3160 Scott St.					Previously, this business had been incorrectly classified as a manufacturer subject to the Industrial Permit. Upon re-inspection, it was noted that the business is in fact, a low priority industrial contractor that is not subject to the industrial Permit.
20	Excellent Coatings Inc	1285 Distribution Way		✓	✓		This business has obtained coverage under the Industrial Permit; however, a SWPPP and storm water monitoring program have not yet been developed or implemented.
21	Ferro Electronic Materials Systems	1395 Aspen Way, Vista, Ca 92083					This business is covered under the Industrial Permit and maintains both a SWPPP and storm water monitoring program.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
22	H2O F/X	1230 Activity Dr., E & F					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
23	Hudson Printing, Inc	1497 Poinsettia Ave., Suite 153					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
24	IDL Tech Tools	2438 Cades Way, Vista, Ca 92081					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
25	Jensen Meat Co Inc	2525 Birch St					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and storm water monitoring program. Storm water monitoring results indicated that Specific Conductance (SC) was above the benchmark level.
26	Lee Steel & Supply	1305 Lee Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP. A monitoring program has been developed, but the business has not yet gathered a sample due to a lack of qualifying rain events. --Note that this business is a wholesaler of scrap metal (SIC code 5015). The adjacent sister-company, "Lee's Iron, Inc.", conducts the scrapping activity, which is unconditionally subject to the Industrial Permit. Both "Lee Steel & Supply" and "Lee's Iron, Inc." have obtained coverage under the Industrial Permit. "Lee Steel & Supply" was advised to consider filing a Notice of Termination (NOT) to cease individual coverage under the Industrial Permit. In this event, "Lee Steel & Supply" and "Lee's Iron, Inc." would both be covered under the current Industrial Permit for "Lee's Iron, Inc.". This would require updates of both the SWPPP and storm water monitoring program already developed for "Lee's Iron, Inc.", but only one annual report and annual fee would have to be submitted to the State each year.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
27	Lee's Iron Inc	1315 Lee Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and a monitoring program. Samples show results well above benchmark levels; however, the samples have been collected pre-treatment and therefore, do not accurately represent the flow that leaves the site. The business was advised to collect representative samples. The SWPPP needs significant improvement as well. Please see "Lee's Steel & Supply", above, for additional, related comments.
28	Lemken Kulhwerk	2330 La Mirada Dr.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
29	Manzo's Metal Works	797 North Ave., Suite C					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
30	Mihal Enterprises dba JT- Designs	1250 Activity Dr., Suite E					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
31	Minor Fab	1205 N Melrose Dr, Suite M					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
32	Natural Alternatives Int'l Inc	1215 Park Center Dr.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
33	Nu Blocks, LLC	2420 Grand Ave, Suite B1					This business is not subject to the Industrial Permit.
34	Oem Production LLC	2875 Scott St.					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
35	Orthodontic Design & Production	1370 Decision St.	✓ *			✓ *	At the time of inspection, this business had completed NONA-NEC paperwork onsite; however, there was a pallet with dried plaster on it being stored outside, which made the business ineligible for NONA-NEC. The business was advised to eliminate all exposure in order to be eligible for exemption, or to file for coverage under the Industrial Permit.
36	OSMONICS (GE)	760 Shadowridge Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and a monitoring program. The SWPPP needs some improvement.
37	Pacific Lead Products, Inc.	793 North Ave, Suite #D	✓	✓	✓ *		This business is unconditionally subject to the Industrial Permit; however, there is no outdoor exposure at the facility. The business must file an NOI and develop a SWPPP and storm water monitoring program. *The business may choose to file a No Exposure Certification (NEC) once the NOI, SWPPP, and storm water monitoring program are in place. If the NEC is approved by the RWQCB, sampling may not be required due to no outdoor exposure.
38	PACIFIC STAIR PRODUCTS	2241 La Mirada Dr					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
39	Print Inc	1225 Park Center Dr, Suite #A		✓	✓		This business has obtained coverage under the Industrial Permit; however, a SWPPP and storm water monitoring program have not yet been developed or implemented.
40	Promach	2438 Cades Way					At the time of inspection, this business was eligible for exemption from the Industrial Permit and had completed NONA-NEC paperwork onsite.
41	Proteus Dimensional Technologies	1260 Distribution Way					At the time of inspection, this business had completed NONA-NEC paperwork onsite. There was a very small amount of exposure at the site at the time of inspection. Some metal scrap objects were awaiting pick-up. The business was advised to move the items under cover until they are removed from the site.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
42	Quality Discount Ice Cream Inc	2465 Coral St, Vista, Ca 92083	✓	✓	✓		This business has been instructed to file an NOI and to develop a SWPPP and storm water monitoring program. Note that if this business ceases to conduct vehicle maintenance onsite, it will no longer be subject to the Industrial Permit.
43	Rayzist Photomask Inc	955 Park Center Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and storm water monitoring program. Monitoring results showed that tested constituents were below the benchmark levels. The SWPPP needed some improvement.
44	Reybro, Inc. dba Quality Recycling	149 Nettleton Rd					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and a monitoring program. Samples show results above benchmark levels; however, the samples have been collected pre-treatment and therefore do not accurately represent the flow that leaves the site. The business was advised to collect representative samples.
45	Roadway Express Inc.	1392 Engineer St.					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and is part of a Group Monitoring Program (GMP). While the business is scheduled to take samples during the current wet season, they have not yet had any qualifying rain events.
46	Robert Jury and Associates	2435 Cades Way, Vista, Ca 92081					This business is not subject to the Industrial permit.
47	Shadowridge Water Reclamation Facility	2525 Lupine Hills Rd			✓		This business has obtained coverage under the Industrial Permit and maintains a SWPPP; however, the storm water monitoring program has not been implemented.
48	Starline Windows	1350 Speciality Dr, Suite B					This business is not subject to the Industrial Permit.
49	Summit Windows And Patio Doors	2760 Progress St					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and a monitoring program. No exceedances were noted in the sampling results.

APPENDIX B-5

#	Business Name	Address	Action To Correct Industrial Permit Violation (if applicable)				Notes
			File NOI	Develop / Implement a SWPPP	Develop / Implement a Storm Water Monitoring Program	Complete NONA/NEC Exemption Forms	
50	US Post Office	960 Postal Way					This business was previously covered under the Industrial Permit but received approval for a Notice Of Termination (NOT) on February 25, 2005. The business is no longer subject to the Industrial Permit since it has moved all vehicle fueling and maintenance services off-site.
51	Watkins Manufacturing Corp	1280 Park Center Dr					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and storm water monitoring program. It should be noted that implementation of the storm water monitoring program throughout this wet season, so far, appears not to have been conducted, but has not been confirmed due to the fact that the facility's environmental manager has been away on maternity leave. The business has been reminded of the monitoring requirements and has been instructed to take samples during the next two qualifying rain events.
52	Westbridge Research Group	1150 Joshua Way					This business has obtained coverage under the Industrial Permit and maintains a SWPPP and storm water monitoring program. A chain-of-custody form confirmed that samples had been submitted, but the most current monitoring results were unavailable for review, as the lab had not yet returned them.

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
(a) Auto repair, maintenance, fueling, cleaning					
A 1 Vista Repair	916 Postal Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
A Smog Test Only	414 N. Santa Fe Ave, Suite A, Vista, CA 92083	X	7549	811198	Agua Hedionda
A+ Automotive	257 N Emerald Dr #A, Vista, CA 92083	X	7538	811111	Agua Hedionda
A-1 Radiator	1903 West Vista Way, Suite C, Vista, CA 92083	X	7539	811118	Agua Hedionda
AA Marine	901 West Vista Way, Vista, CA 92084	X	5551	441222	Agua Hedionda
A-B-C Smog	1415 South Santa Fe Ave, Vista, CA 92084	X	7549	811198	Agua Hedionda
Adams Automotive	158 Olive Ave, Suite A, Vista, CA 92083	X	7549	488410	Agua Hedionda
Advance Auto Center	1352 N. Melrose, Suites L-K, Vista, CA 92083	X	7538	811111	Agua Hedionda
AJ Smog	660 E Vista Way, Vista, CA 92084	X	7549	811198	Agua Hedionda
All Tune & Lube	257 N Emerald Drive, Suite B, Vista, CA 92083	X	7538	811111	Agua Hedionda
Allen's Auto	718 East Vista Way, Vista, CA 92084	X	7538	811111	Agua Hedionda
Alta Mechanic	446 Olive Ave Suite F & G, Vista, CA 92083	X	7538	811111	Agua Hedionda
Andy's Automotive Specialist	1069 South Santa Fe Avenue, Vista, CA 92083	X	7536	811122	
Auto Diagnostic Repair	1752 E Vista Way, Vista, CA 92084	X	7538	811111	Agua Hedionda
Auto Precision	1024 Service Place, Suite 101, Vista, CA 92084	X	7538	811111	Agua Hedionda
Auto Smog	2070 Hacienda Dr Suite J, Vista, CA 92081	X	7549	811198	Agua Hedionda
Auto Spa	851 W. VISTA WAY, Vista, CA 92083	X	7542	811192	Agua Hedionda
Auto Tyme Automotive, Inc.	1146 North Melrose Drive, #801, Vista, CA 92083	X	7538	811111	Agua Hedionda
Autocare USA	414 N. Santa Fe Ave, Suites B & C, Vista, CA 92083	X	7538	811111	Agua Hedionda
B & C Auto Repair	918 Postal Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
B & D Auto Repair and Service	1350 North Melrose Drive, Vista, CA 92083	X	7538	811111	Agua Hedionda
Big O Tires	636 South Santa Fe Avenue, Vista, CA 92084	X	7549	811198	Agua Hedionda
Bob Workman's European Auto Service	1304 North Melrose Drive, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
British Masters	715 Mercantile Street, Vista, CA 92083		7538	811111	Buena Vista
Budget Smog	1205 North Melrose Drive, Suite G, Vista, CA 92083	X	7538	811111	Buena Vista
Budget Smog Test Only Center	538 Olive Ave 300-C, Vista, CA 92083	X	7549	811198	Agua Hedionda
CESAR'S AUTO MECHANICS	452 Olive Ave, Suite L, Vista, CA 92083	X	7538	811111	Agua Hedionda
Clutchworks	1205 North Melrose Drive, Suite D, Vista, CA 92083	X	7537	811113	Agua Hedionda
Corona Used Tires/AJ Smog	658-660 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	7534	811198	Agua Hedionda
Courtesy Auto Repair	826 N. Santa Fe Ave, Vista, CA 92083	X	7538	811111	Agua Hedionda
Cox Auto Service	1018 Service Place, Vista, CA 92084	X	7538	811111	Agua Hedionda
Dion's Automotive	1210 N. Melrose Drive, Suite D, Vista, CA 92083	X	7538	811111	Buena Vista
Discount Alignment	1024 Service Place, Suite 100, Vista, CA 92084	X	7538	811111	Agua Hedionda
Discount Tire Co., Inc.	1007 Service Place, Vista, CA 92083	X	5531	441320	Agua Hedionda
Drew's Automotive Repair	538 OLIVE AVE., SUITE D, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Drift Tech / Discount Towing and Auto Repair	635 Mercantile ST # C, Vista, CA 92083	X	7538	811111	Agua Hedionda
Driveline Vista	253 North Emerald Drive, Suite A & B, Vista, CA 92083	X	7538	811118	Agua Hedionda
Euro Pacific Paint & Body	1210 N. Melrose Drive, Suite B, Vista, CA 92083	X	7532	811121	Agua Hedionda
Euro Pacific, Inc.	1210 North Melrose Drive, Suite B, Vista, CA 92083		7532	811121	Buena Vista
European Motorsports	2588 Progress Street, Suite 11, Vista, CA 92081	X	7538	811111	Agua Hedionda
Evans Tire & Service Center	865 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	7534	811198	Agua Hedionda
Evans Tire & Service Centers	2070 Hacienda Drive, Suite A, Vista, CA 92083	X	7534	811198	Agua Hedionda
Express Tire & Certified Auto Service	2030 Hacienda Drive, Suite 100, Vista, CA 92083	X	7538	811111	Agua Hedionda
EZ Lube	786 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	7549	811191	Agua Hedionda
F Piersalls Vista Buggy Bath	1759 E. VISTA WAY, Vista, CA 92083		7542	811192	Agua Hedionda
FDO Auto Service	446 Olive Avenue, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
Fernando Sons Fer's Auto Repair	446 Olive Avenue, Suite F, Vista, CA 92083		7538	811111	Agua Hedionda
Fountain Car Wash	1352 N. SANTA FE AVE, Vista, CA 92083	X	7542	811192	Agua Hedionda
Fred's Automotive	1725 East Vista Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
General Transmission	427 Redlands Street, Suite B, Vista, CA 92083		7537	811113	Buena Vista
George's Auto Repair and Smog	1740 E Vista Way #B, Vista, CA 92084	X	7538	811111	Agua Hedionda
German Auto Clinic	912 Postal Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
Glitter Wash	1140 S. SANTA FE AVE, Vista, CA 92083	X	7542	811192	Agua Hedionda
GM Exclusive	1215 North Melrose Drive, Suite B, Vista, CA 92083	X	7538	811111	Agua Hedionda
Golden Wrench Automotive	241 N EMERALD DRIVE, SUITE B, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda
Hanjo Auto Repair	452 Olive Avenue, Suite M, Vista, CA 92083	X	7538	811111	Agua Hedionda
Hera's Auto Shop Mufflers & Brakes	808 N Santa Fe Ave, Suite A, Vista, CA 92083	X	7533	811112	Agua Hedionda
Herman Tuning	1903 W. Vista Wary, Vista, CA 92083	X	7699	811490	Agua Hedionda
Humberto's Auto Repair	444 South Santa Fe Avenue, Suite B, Vista, CA 92083	X	7538	811111	Agua Hedionda
J & J Automotive	635 Mercantile St, #A, Vista, CA 92083	X	7538	811111	Agua Hedionda
Jack's Auto Repair	427 Redlands, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
JCM Auto Repair	452 Olive Avenue, Suite J, Vista, CA 92083	X	7538	811111	Agua Hedionda
Jiffy Lube #432	1213 East Vista Way, Vista, CA 92084	X	7549	811191	Agua Hedionda
Juan's Auto Electric	808 North Santa Fe Ave, Suite B, Vista, CA 92083	X	7539	811118	Agua Hedionda
Kenny's Kar Clinic	420 Vista Village Drive, Vista, CA 92083	X	7532	811121	Agua Hedionda
Kragen Auto Parts	1250 S. Santa Fe Ave. #A, Vista, CA 92084	X	5531	441310	Agua Hedionda
Ludwick's Automotive, Inc.	460 Olive Avenue, Vista, CA 92083	X	7539	811118	Agua Hedionda
Masterlube, Inc.	243 Sycamore Avenue, Vista, CA 92084	X	7538	811111	Agua Hedionda
Matt's Mobil Auto Repair	253 North Emerald Drive, Suite D, Vista, CA 92083	X	7538	811111	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Mexicano Tires	428 N Santa Fe Ave #A, Vista, CA 92083	X	7534	811198	Agua Hedionda
Michael's Electric	611 South Santa Fe Avenue, Vista, CA 92083	X	7539	811118	
Midas Shop	1150 South Santa Fe Avenue, Vista, CA 92084	X	7538	811111	Agua Hedionda
Mike and Pancho's Auto Repair	635 Mercantile St., Suite B, Vista, CA 92083	X	7538	811111	Agua Hedionda
North County Import Specialist	1215 North Melrose Drive, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
Novak Auto Repair	723 OLIVE AVE., SUITE B, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda
Oceanside Towing & Services, Inc.	1352 N. Melrose Dr, #E, Vista, CA 92083	X	7538	811111	Agua Hedionda
Olympic Auto Body and Paint	119 Terracina Way, Vista, CA 92083	X	7532	811121	Agua Hedionda
On The Move Mobile Auto & Truck	538 OLIVE AVE., SUITE B, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda
Pacific Coast Smog Check	1310 N. Melrose, Vista, CA 92083	X	7549	811198	Agua Hedionda
Perfect Timing Auto Service	1224 Keystone Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
Pitawanakwat Auto Repair	538 OLIVE AVE., SUITE 304, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Buena Vista
Quick Check Smog	835 N Santa Fe Ave, Vista, CA 92083	X	7549	811198	Agua Hedionda
R A S Services, Inc.	401 W. VISTA WAY, Vista, CA 92083	X	7542	811192	Agua Hedionda
Rancho Del Oro Towing	2260 LA MIRADA DR, VISTA CA 92081, Vista, CA 92081	X	7549	488410	Agua Hedionda
Raylen Tasker's Auto Center	1806 East Vista Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
RC Auto and Smog	1410 South Santa Fe Avenue, Suite B, Vista, CA 92084	X	7538	811111	Agua Hedionda
Red Line Towing & Fleet Maintenance, Inc.	451 OLIVE AVE., VISTA, CA 92083, Vista, CA 92083	X	7549	48841	Agua Hedionda
Reliable Transmission/Vista Towing	810 North Santa Fe Avenue, Vista, CA 92083	X	7537	811113	Agua Hedionda
Richard's Performance Muffler	1352 N. Melrose Dr #A, Vista, CA 92083	X	7533	811112	Agua Hedionda
Rob's Auto Repair	1124 North Melrose Drive, Suite 202, Vista, CA 92083	X	7538	811111	Agua Hedionda
Rollin Renches Inc.	1212 DISTRIBUTION WAY, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda
Romeo's Car Wash	352 N. SANTA FE AVE, Vista, CA 92083	X	7542	811192	Agua Hedionda
S & R Service Center	245 N Emerald Drive, Suite C, Vista, CA 92083	X	7538	811111	Agua Hedionda
Santa Fe Auto Repair	1045 North Santa Fe Avenue, Vista, CA 92083	X	7538	811111	Agua Hedionda
Santa Fe Car Wash	980 S. SANTA FE AVE, Vista, CA 92084	X	7542	811192	Agua Hedionda
Service Clinic	436 Vista Village Dr, Vista, CA 92083	X	7538	811111	Agua Hedionda
Shadowridge 76, Inc./Vollmer Petroleum	636 Sycamore Avenue, Vista, CA 92083	X	5541	447110	Agua Hedionda
Smog Centers of California	485 N. Melrose Dr., Vista, CA 92083	X	7549	811198	Agua Hedionda
Specialized Paint & Body Works	553 Mercantile St., Vista, CA 92083	X	7532	811121	Agua Hedionda
Sport Car Motion	2332 LA MIRADA ST, #1100 VISTA, CA 92084, Vista, CA 92084	X	7549	811198	Agua Hedionda
Mazda's and More	245 North Emerald Drive, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Ted's Auto Service	727 East Vista Way, Vista, CA 92083	X	7538	811111	Agua Hedionda
Teo's Auto Electric	446 Olive Ave, Suite H, Vista, CA 92083	X	7539	811118	Agua Hedionda
The Transmission Source	538 OLIVE AVE., SUITE 101-103, VISTA, CA 92083, Vista, CA 92083	X	7537	811113	Agua Hedionda
TJ Crossman's Mobile Auto Repair	1330 North Melrose Drive, Vista, CA 92083				Agua Hedionda
Tom Kennedy Auto Repair	1330 North Melrose Drive, Suite D, Vista, CA 92083	X	7538	811111	Agua Hedionda
Tony's Mobil	801 South Santa Fe Avenue, Vista, CA 92083	X	5541	447110	Buena Vista
Tri City Tire & Automotive	241 N Emerald Dr #A, Vista, CA 92083	X	7534	811111	Agua Hedionda
Tri City Transmission	1147 South Santa Fe Avenue, Vista, CA 92083	X	7537	811113	Agua Hedionda
Tri-city Smog	245 N Emerald #B, Vista, CA 92083	X	7549	811198	Agua Hedionda
Victor's Brake & Auto Specialists	1352 N. Melrose Dr, Suite G, Vista, CA 92083	X	7539	811118	Agua Hedionda
Vista Brake Service and Supply	790 East Vista Way, Vista, CA 92084	X		811118	Agua Hedionda
Vista Car Care	444 South Santa Fe Avenue, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
Vista Firestone Brake and Smog	711 South Santa Fe Avenue, Vista, CA 92083	X	7538	811111	Agua Hedionda
Vista Independent Volvo Service	538 OLIVE AVE., SUITE C-303, VISTA, CA 92083, Vista, CA 92083	X	7538	811111	Agua Hedionda
Vista Motorcycle	1155 South Santa Fe Avenue, Suite G, Vista, CA 92083	X	7699	811490	Buena Vista
Vista Muffler and Radiator	435 Redlands Street, Vista, CA 92083	X	7538	811111	Agua Hedionda
Vista Santa Fe Car Wash	521 N. SANTA FE AVE , Vista, CA 92083	X	7542	811192	Agua Hedionda
Vista Santa Fe Transmissions, Inc.	1144 South Santa Fe Avenue, Vista, CA 92083	X	7538	811111	
Vista Transmission Service	427 Redlands Street, Suite B, Vista, CA 92083	X	7537	811113	Agua Hedionda
Vista Way Smog	911 East Vista Way, Vista, CA 92083	X	7549	811198	Agua Hedionda
Volvo Works	1211 North Melrose Drive, Suite A, Vista, CA 92083	X	7538	811111	Agua Hedionda
Wholesale Tube Bending #2	257 North Emerald Drive, Suite C, Vista, CA 92083	X	7533	811112	Agua Hedionda
Wizard Auto Repair	446 Olive Avenue, Suite C, Vista, CA 92083	X	7538	811111	Agua Hedionda
X R-Bob's Harley Davidson Repair	329 Olive Avenue, Vista, CA 92083	X	7699	811490	Agua Hedionda
Ye Olde Car Shoppe	555 Mercantile Street, Vista, CA 92084	X	7538	811111	Agua Hedionda
Zimmermann Autosport/ZAS	1304 North Melrose Drive, Suite B, Vista, CA 92083	X	7532	811121	Agua Hedionda
ZSR Auto Repair	446 Olive Ave., Suite D, Vista, CA 92083				
(b) Airplane repair, maintenance, fueling, cleaning					
None Identified					
(c) Boat Services					
Sea Witch Marine, Inc	1085 S. SANTA FE AVE , Vista, CA 92083			44122	Buena Vista
(d) Equipment Repair					
Brightco Machining	2336 La Mirada Dr., #200, Vista, CA 92081				Agua Hedionda
Coast Equipment Rental	1713 W. VISTA WAY , Vista, CA 92083			53221	Buena Vista

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Concept Machining	1230 Activity Dr #C, Vista, CA 92081			33271	
Doug Miller Equipment Rental	135 E Broadway , Vista, CA 92084			53249	
Pauley Equipment	348 N. SANTA FE AVE , Vista, CA 92083			53221	Buena Vista
Richardson Equipment Services	3366 E Vista Way, Vista, CA 92084		5324		
Vista Equipment Rentals Inc	1121 S. SANTA FE AVE , Vista, CA 92083			53221	Buena Vista
(e) Auto Paint/Body					
Classic Datsun Motorsports	345 Olive Avenue, Vista, CA 92083	X	7532	811121	Agua Hedionda
El Mago Paint and Body	427 Red Lands St Suite C, Vista, CA 92083	X	7532	811121	Agua Hedionda
Patrick Flynn's Frame and Collision	1013 Service Place, Vista, CA 92084	X	7532	811121	Agua Hedionda
Performance Auto Body	1330 North Melrose Drive, Suite A, Vista, CA 92083	X	7532	811121	Agua Hedionda
(f) Mobile Vehicle Washing					
Mobile Wash Works	1125 Cabrillo Circle , Vista, CA 92084			811192	
Randy's Pressure Washing	1205 N. SANTA FE #62, Vista, CA 92083		7542	811192	Buena Vista
(g) Auto Parking Lots					
A M Cars & Trucks Enterprises	1830 HACIENDA DR #4, Vista, CA 92083			532	Buena Vista
Auto Europa Cars	737 TOWNSITE DR #743, Vista, CA 92084			44112	Buena Vista
Budget Rent A Car	1859 W. VISTA WAY , Vista, CA 92083			532111	Buena Vista
Budget Rent A Car Systems, Inc.	241 N. EMERALD DR , Vista, CA 92083			532	Buena Vista
C & M Motors Inc/ NationalLease	1902 VIA CENTRE , Vista, CA 92083			44111	Buena Vista
Cheap Cars Auto Sales	352 N. SANTA FE AVE , Vista, CA 92083			44112	Buena Vista
Coast Conversion	536 N. SANTA FE AVE , Vista, CA 92083			8111	Buena Vista
D & D Bus Sales	536 N. SANTA FE AVE , Vista, CA 92083			44112	Buena Vista
Diamond Imports Of Vista	964 VISTA VILLAGE DR , Vista, CA 92084			44112	Buena Vista
E G M Auto Sales & Leasing	835 N. SANTA FE AVE #A, Vista, CA 92084			44111	Buena Vista
E Z Buy Auto Information Service	952 POSTAL WAY #4G, Vista, CA 92083			44111	Buena Vista
Enterprise Car Sales	875 W. VISTA WAY , Vista, CA 92084			44111	Buena Vista
Enterprise Rent-A-Car Lsg 3249	875 W. VISTA WAY , Vista, CA 92083			532111	Buena Vista
Exotic Auto Rental	865 E. VISTA WAY , Vista, CA 92084			532111	Buena Vista
Fred's Auto Sales	1725 E. VISTA WAY , Vista, CA 92084			42111	Buena Vista
Garry Lowerison	1069 S. SANTA FE AVE #B, Vista, CA 92083			53221	Buena Vista
George's Auto Sales, Inc.	1211 N. MELROSE DR #B, Vista, CA 92083			42111	Buena Vista
Happy Auto Sales	721 N. SANTA FE AVE , Vista, CA 92083			44112	Buena Vista
In House Credit Auto Sales	1036 S. SANTA FE AVE , Vista, CA 92084			4411	Buena Vista
J & C Leasing Carolyn Culkin	1112 NASH LN , Vista, CA 92083			532111	Buena Vista
North County Auto Exchange	1082 S. SANTA FE AVE , Vista, CA 92084			44112	Buena Vista
North County Ford	450 W. VISTA WAY , Vista, CA 92083			44111	Buena Vista
Santa Fe Auto Sales	1045 N. SANTA FE AVE , Vista, CA 92084			44111	Buena Vista

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Santa Fe Auto Sales Inc	267 S. SANTA FE AVE , Vista, CA 92083			4411	Buena Vista
Security Chevrolet Inc	1100 E. VISTA WAY , Vista, CA 92084		551100 1	44111	Buena Vista
Two Brothers	1025 S. SANTA FE AVE #D, Vista, CA 92084			4411	Buena Vista
Vista Auto Group Inc.	267 S Santa Fe AVE , Vista, CA 92083			4411	
Vista Car Sales	1420 S. SANTA FE AVE , Vista, CA 92084			44112	Buena Vista
Vista Valley Auto Center	1803 E. VISTA WAY , Vista, CA 92084			44112	Buena Vista
Vista Village Motors	350 VISTA VILLAGE DR , Vista, CA 92083			44112	Buena Vista
West Coast Imports Sales &	1386 POINSETTIA AVE #E, Vista, CA 92083			44111	Agua Hedionda
Whiting's Auto Sales	968 Vista Village DR , Vista, CA 92084			Unassigned	Buena Vista
(h) Fueling					
7 Eleven #15923	1501 North Santa Fe Avenue, Vista, CA 92083	X	5541	447110	Agua Hedionda
7 Eleven #24085	900 North Santa Fe Avenue, Vista, CA 92083	X	5541	447110	Agua Hedionda
7 Eleven #32326 A 2111	3251 BUSINESS PARK DR, VISTA, CA 92083, Vista, CA 92083	X	5541	44711	Agua Hedionda
American Petroleum	1740 East Vista Way, Vista, CA 92084	X	5541	447110	Agua Hedionda
Ammex Oil, Inc. Fillco	1244 N. Santa Fe Ave., Vista, CA 92083	X	5541	447110	Agua Hedionda
Apro #27	976 Escondido Ave, Vista, CA 92083	X	5541	447190	Agua Hedionda
Apro Llc #30	485 N. Melrose Dr, Vista, CA 92083	X	5541	447110	Agua Hedionda
Arco AM PM #6315	1403 South Santa Fe Avenue, Vista, CA 92083	X	5541	44711	Buena Vista
Barnicles Express Gasoline	845 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5541	447110	Agua Hedionda
Chevron Station #1497	2295 South Melrose Drive, Vista, CA 92081	X	5541	447110	Agua Hedionda
Chevron USA	224 Emerald Dr, Vista, CA 92083	X	5541	447110	Agua Hedionda
Chevron USA (Foothill Chevron)	1211 E. Vista Way, Vista, CA 92084	X	5541	447110	Agua Hedionda
E Vista Way Exxon	911 E Vista Way, Vista, CA 92083	X	5541	447110	Agua Hedionda
Emerald Shell	145 N EMERALD DRIVE, VISTA, CA 92083, Vista, CA 92083	X	5541	447110	Buena Vista
Exxon Mobil Oil Corporation	710 Sycamore Avenue, Vista, CA 92083	X	5541	447110	Agua Hedionda
Foothill Chevron	1211 East Vista Way, Vista, CA 92084	X	5541	44711	Agua Hedionda
Golden State Gasoline, Inc.	535 North Santa Fe Avenue, Suite 4, Vista, CA 92083	X	5541	44711	Agua Hedionda
John's AMPM	625 Sycamore Avenue, Vista, CA 92083	X	5541	447110	Agua Hedionda
LM Retail, LP dba Shell Gasoline	2131 E Vista Way, Vista, CA 92084	X	5541	447190	San Luis Rey
Melrose Shell	210 South Melrose Drive, Vista, CA 92081	X	5541	447110	Agua Hedionda
Shell Oil Products U.S.	400 Sycamore Ave, Vista, CA 92083	X	5541	447110	Agua Hedionda
SKS, Inc. Petroleum Distributors	620 South Santa Fe Avenue, Vista, CA 92083	X	5541	447190	Agua Hedionda
South Melrose Arco	1590 S. Melrose Drive., Vista, CA 92081	X	5541	447110	Agua Hedionda
Sycamore Texaco	400 SYCAMORE AVE, Vista, CA 92083		5541	44711	Agua Hedionda
TJ Properties, Inc Chevron Olive	485 North Melrose Drive, Vista, CA 92083		5541	44711	Buena Vista

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Vista Unocal	976 Escondido Avenue, Vista, CA 92083		5541	44719	Buena Vista
Western States Petroleum LLC dba Chevron	600 Hacienda Drive, Vista, CA 92083	X	5541	447110	Buena Vista
(i) Pest Control					
A A Same Day Exterminators	807 N. SANTA FE AVE , Vista, CA 92084			56172	Buena Vista
Barlow's Pest Control	375 Windy Lane , Vista, CA 92083			56171	
Gemini Pest Control Inc	1058 TAYLOR ST , Vista, CA 92083			56172	Buena Vista
Growers Spraying Service	312 PLUMOSA AVE , Vista, CA 92083			56172	Agua Hedionda
Kennedy Pest Control, Inc.	114 NATAL WAY , Vista, CA 92083			56172	Buena Vista
Orkin Pest Control D Glassmaker	2420 GRAND AVE #J, Vista, CA 92083			56172	Agua Hedionda
Pestgon Inc	519 S. SANTA FE , Vista, CA 92083			56172	Buena Vista
Willis Exterminators	2475 CORAL ST #B, Vista, CA 92084			56172	Agua Hedionda
(j) Eating Places					
365 Olive Avenue Mobile Food Service Hub	365 OLIVE AVE Suite #A, Vista, CA 92083	X	5963	722330	Agua Hedionda
Ai Sushi	1910 SHADOWRIDGE DR Suite #106, Vista, CA 92083	X	5812	722110	Agua Hedionda
Aibertos Mexican Food	435 N. SANTA FE AVE, Vista, CA 92084	X	5812	722211	Agua Hedionda
Albertacos Mex Food Inc	601 SYCAMORE AVE, Vista, CA 92083	X	5812	722211	Agua Hedionda
Albertson's #6201	1301 E Vista Way, Vista, CA 92084	X	5411	445110	Agua Hedionda
Albertson's #6797	1601 S Melrose Dr, Vista, CA 92083	X	5411	445110	Agua Hedionda
Allen's Alley Cafe	124 HANES PL, Vista, CA 92083	X	5812	722212	Agua Hedionda
Arashi Japanese Cuisine	962 S. Santa Fe Ave., Vista, CA 92084	X	5812	722110	Agua Hedionda
Armandos Mexican Food	770 SYCAMORE AVE Suite #L, Vista, CA 92083	X	5812	722211	Buena Vista
Baja Fresh Mexican Grill	620 HACIENDA DR Suite #101, Vista, CA 92083	X	5812	722211	Agua Hedionda
Benson's Vista Way Cafe	868 E. VISTA WAY, Vista, CA 92084		5812	72211	Buena Vista
Big Dog Sausage & Hot Dogs @	1200 VALE TER, Vista, CA 92083		5812	72231	Buena Vista
Bombay Cafe	1280 E VISTA WAY, SUITE #4, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	Buena Vista
Boston Market Store #1167	1730 UNIVERSITY DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Burger King	377 VISTA VILLAGE DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Burger King #10512	1650 S. MELROSE DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Cafe Oasis	1175 Park Center Drive, F, Vista, CA 92083	X	5812	7222110	Agua Hedionda
California Pizza Kitchen	307 Vista Village Dr., Vista, CA 92085				Buena Vista
Carl's Jr. #1390	660 HACIENDA DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Carl's Jr. Restaurant	1790 UNIVERSITY DR, Vista, CA 92084	X	5812	722211	Agua Hedionda
Carl's Tavern	1565 W. VISTA WAY, Vista, CA 92083	X		722410	Agua Hedionda
Casa Linda	721 S. SANTA FE AVE, Vista, CA 92083	X	5812	722110	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Chicks Natural Roasted Chicken	950 E VISTA WAY, SUITE #H & I, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Chili Coast Burgers	1330 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Chili's Grill & Bar	255 Vista Village Dr., Vista, CA 92083	X	5812	722110	Agua Hedionda
Chin's Express & Teriyaki	1711 UNIVERSITY DR Suite #130, Vista, CA 92083	X	5812	722211	Agua Hedionda
Chin's Szechwan Vista, Inc.	600 E VISTA WAY, VISTA, CA 92083, Vista, CA 92083	X	5812	722110	Buena Vista
China Coast Buffet California, Inc.	1810 University Dr., Vista, CA 92083				
China Szechwan	959 E. VISTA WAY, Vista, CA 92084	X	5812	722110	Agua Hedionda
Chipotle Mexican Grill	30 Main St #G-100, Vista, CA 92084	X	5812	722211	Agua Hedionda
Choo Choo Donuts	1597 Vista Way E. Ste.B, Vista, CA 92083	X	5461	311811	Agua Hedionda
Christina Bakery	1110 N. SANTA FE AVE D, Vista, CA 92084	X	5461	722213	Agua Hedionda
Ciao Restaurant	2015 E. VISTA WAY, Vista, CA 92084	X	5812	722110	Agua Hedionda
Cirincione's Ristorante & Pizzeria	1450 N. SANTA FE AVE Suite #E, Vista, CA 92083	X	5812	722110	Agua Hedionda
Cobare's Corner Café	2260 Oak Ridge Way, Suite D, Vista, CA 92081	X	5812	722211	Agua Hedionda
Coco's 882	605 W. VISTA WAY, Vista, CA 92083	X	5812	722110	Agua Hedionda
Cold Stone Creamery	30 Main St #120, Vista, CA 92083	X	5812	722213	Agua Hedionda
Colima's Mexican Food	1850 Hacienda Dr. Suite#22, Vista, CA 92083	X	5812	722211	Agua Hedionda
Courtyard Cafe	325 S MELROSE DR, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Curbside Cafe	307 MAIN ST, Vista, CA 92084	X	5812	722110	Agua Hedionda
D. Chamber Creations LLC dba Coldstone Creamery	1711 UNIVERSITY DR Suite #140, Vista, CA 92083	X	5812	722213	Agua Hedionda
Dairy Queen	1031 S SANTA FE AVE, SUITE #A, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Dairy Queen - Shadowridge	1580 S. MELROSE DR Suite #116, Vista, CA 92083	X	5812	722213	Agua Hedionda
Danish & Donuts	1450 Santa Fe Ave.N. Ste I, Vista, CA 92083	X	5461	722213	Agua Hedionda
Danny's Donuts	102 Eucalyptus Ave, Vista, CA 92084	X	5461	722213	Agua Hedionda
Del Taco 212	1037 BOBIER DR, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Devora's Pastries @ East of Java	3231 Business Park Dr, 1, Vista, CA 92081	X	5461	722213	Agua Hedionda
Diamond Donuts	730 SYCAMORE AVE F, Vista, CA 92083	X	5461	722213	Agua Hedionda
Dinner Studio	1850 Hacienda Dr. Suite#12, Vista, CA 92084	X	5812	722320	Agua Hedionda
Dominos Pizza 7731	1021 E BOBIER DR, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Buena Vista
Dominos Pizza 8300	603 E. SYCAMORE AVE, Vista, CA 92083	X	5812	722211	Agua Hedionda
Donut Factory	1839 Vista Way W. Ste C, Vista, CA 92083	X	5461	311811	Agua Hedionda
Dos Amigos Restaurant	1651 S. Melrose Ave, #D, Vista, CA 92083	X	5812	722110	Agua Hedionda
Drive-thru Coffee Express	1092 E Vista Way, Vista, CA 92084			0	
Drucker Subway Sr, Inc	1651 S. MELROSE DR Suite #B, Vista, CA 92083	X	5812	722211	Agua Hedionda
Duran N Sonz Roast Pig	2125 Foothill Dr. , Vista, CA 92083			72232	
East Coast Pizzeria & Catering	1839 West Vista Way, Suite B, Vista, CA 92084	X	5812	722211	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
East Of Java	3231 Business Park Dr. Ste.1, Vista, CA 92083	X	5812	722213	Agua Hedionda
El Asadero Restaurant	1717 E VISTA WAY, SUITE #106, VISTA, CA 92084, Vista, CA 92084	X	5813	72241	Agua Hedionda
El Callejon Vista	20 Main St, H-100, Vista, CA 92083	X	5812	722110	Agua Hedionda
El Caporal Mexican Food	800 ESCONDIDO AVE B, Vista, CA 92084	X	5812	722211	Agua Hedionda
El Dorado Express Grill	3265 BUSINESS PARK DR B, Vista, CA 92084	X	5812	722211	Agua Hedionda
El Pollo Loco #3492	495 S. Melrose Dr., Vista, CA 92083	X	5812	722211	Buena Vista
El Puertesito Mexican Restaurant	1450 N. SANTA FE AVE Suite #R, Vista, CA 92084	X	5812	722110	Agua Hedionda
El Rancho	226 MAIN ST, Vista, CA 92084	X	5812	722110	Agua Hedionda
El Rancho Restaurant	1565 N. SANTA FE AVE, Vista, CA 92084	X	5812	722110	Agua Hedionda
El Rinconcito Mexican Seafood Rest	1033 S SANTA FE AVE, SUITE #E, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	Agua Hedionda
El Tigre Foods Warehouse	1150 E. Vista Way, Vista, CA 92084	X	5411	445110	Agua Hedionda
El Torito Market	249 N. EMERALD DR, Vista, CA 92083	X	5411	445110	Agua Hedionda
El Zurdo Mexican Food	1072 E. VISTA WAY, Vista, CA 92084	X	5812	722211	Agua Hedionda
Elaines Cake Boutique	1021 Santa Fe Ave. N. Ste 1, Vista, CA 92083	X	5461	311811	Agua Hedionda
Elk's Lodge Restaurant	1947 E Vista Way, Vista, CA 92084	X	5812	722110	San Luis Rey
Eriberto's Mexican Food	1805 HACIENDA DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Erika Restaurant	1851 W. VISTA WAY Suite #C, Vista, CA 92085	X	5812	722211	Agua Hedionda
European Deli & Rest	573 W. VISTA WAY Suite #D, Vista, CA 92083	X	5812	722211	Agua Hedionda
Feliccias	1011 S SANTA FE AVE, SUITE C, VISTA, CA 92083, Vista, CA 92083	X	5812	722110	Agua Hedionda
Fiesta Giant Pizza	1120 N. Santa Fe Ave., Vista, CA 92083	X	5812	722211	Agua Hedionda
Fifties Diner	1651 S. MELROSE Suite #A, Vista, CA 92083		5812	722110	Agua Hedionda
Filibertos Mexican Food	960 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Buena Vista
Fonzie's Classic Cafe & Antiques	1680 S Melrose Dr #101, Vista, CA 92081		5812	72211	Agua Hedionda
Food 4 Less 300	500 Hacienda Drive, Vista, CA 92081	X	5411	445110	Agua Hedionda
Foodmaker Inc 55 - Jack In The Box	815 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Buena Vista
Fortune Palace Restaurant	785 Shadowridge Dr., Vista, CA 92083	X	5812	722110	Agua Hedionda
Franciscos Mexican Deli	821 N. SANTA FE AVE, Vista, CA 92084	X	5812	722211	Buena Vista
Frank's Mexican Grill	122 W. CALIFORNIA AVE, Vista, CA 92085	X	5812	722211	Agua Hedionda
Froggy's Donuts and Bakery	602 E VISTA WAY, SUITE A, VISTA, CA 92084, Vista, CA 92084	X	5461	722213	Agua Hedionda
Giant New York Pizza	1250 S. SANTA FE AVE Suite #E, Vista, CA 92084	X	5812	722110	Buena Vista
Golden Donut	1281 N. SANTA FE AVE Z, Vista, CA 92084	X	5461	722213	Agua Hedionda
Golden Dragon Restaurant	1350 E. VISTA WAY Suite #10, Vista, CA 92083	X	5812	722210	Agua Hedionda
Hello Deli	2820 La Mirada Dr. Ste. A, Vista, CA 92083	X	5812	722211	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Hennessey's	224 Main St , Vista, CA 92084	X	5812	7221	Agua Hedionda
Holly's Pies	540 W. VISTA WAY, Vista, CA 92083	X	5812	722110	Agua Hedionda
House of Thanon Thai Cuisine	485 S. Melrose Dr. # 108 & 109, Vista, CA 92081	X	5812	722110	Agua Hedionda
In N Out Burger #61	2010 HACIENDA DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
International House Of Pancakes 814	632 SYCAMORE AVE, Vista, CA 92083	X	5812	722110	Agua Hedionda
Islands Fine Burgers & Drinks	240 S MELROSE DR, VISTA, CA 92083, Vista, CA 92083	X	5812	722110	Agua Hedionda
J F Japanese Cafe	35 Main St. Suite #100, Vista, CA 92083	X	5812	722211	Agua Hedionda
Jack In The Box #3002	740 SYCAMORE AVE, Vista, CA 92085	X	5812	722211	Agua Hedionda
Jack In The Box #3028	260 S MELROSE DR, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Jack In The Box #3032	3281 BUSINESS PARK DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Jack in the Box 3019	1471 N. SANTA FE AVE, Vista, CA 92084	X	5812	722211	Agua Hedionda
Java Hut Drive-Thru	823 E Vista Way, Vista, CA, 92084		5812	722213	
Java Hut Drive-Thru	949 S. Santa Fe Ave., Vista, CA 92083	X	5812	722213	
Jims Vista Lounge	1587 E. VISTA WAY Suite #A&B, Vista, CA 92084	X	5813	722410	Agua Hedionda
Jj's Deli #5	1495 POINSETTIA AVE 152, Vista, CA 92081	X	5812	722211	Agua Hedionda
Johnny Mac's Delipub, LLC	770 SYCAMORE AVE Suite #H, Vista, CA 92081	X	5812	722211	Agua Hedionda
Juanita's Taco Shop	248 MAIN ST, Vista, CA 92083	X	5812	722211	Buena Vista
Juba Juba	680 HACIENDA DR, Vista, CA 92083	X	5812	722213	Agua Hedionda
Juice Zone	30 Main St #180, Vista, CA 92083	X	5812	722213	Agua Hedionda
Juniors Taco Shop	1680 S. Melrose Dr. #110, Vista, CA 92083	X	5812	722110	Agua Hedionda
K & H Steak, Inc. dba Steak Escape	35 Main St #110, Vista, CA 92083	X	5812	722211	Agua Hedionda
Kabab Cuisine	1688 S. Melrose Dr. #206, Vista, CA 92083	X	5812	722110	Agua Hedionda
Kanya's Thai Cuisine	1011 S. SANTA FE AVE, Vista, CA 92083	X	5812	722110	Agua Hedionda
Kentucky Fried Chicken	840 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Kork's Donuts & Ice Cream	771 E VISTA WAY, SUITE 102A, VISTA, CA 92083, Vista, CA 92083	X	5461	722213	
La Gordita	1275 S. SANTA FE AVE Suites #117, 118, Vista, CA 92083	X	5812	722211	Buena Vista
La Mexicana Market	440 N Santa Fe Ave, Vista, CA 92083	X	5421	445210	Loma Alta
La Mixteca	1110 N. SANTA FE AVE F, Vista, CA 92083	X	5812	722213	Agua Hedionda
La Pachanga	2004 E. Vista Way, Vista, CA 92083		5812	72232	San Luis Rey
La Paloma Restaurant & Cocktail	116 ESCONDIDO AVE 10405, Vista, CA 92084	X	5812	722110	Agua Hedionda
Lamppost Pizza	15 Main St., Vista, CA 92084	X	5812	722211	Agua Hedionda
Little Caesars Pizza	1041 E. VISTA WAY, Vista, CA 92084	X	5812	722211	Agua Hedionda
Los Cabos Mexican & Seafood	760 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Lucy's Place Ice Cream	1583 E Vista Way #4, Vista, CA 92084	X	5812	722113	Agua Hedionda
Mama's & Papa's Pizza Grotto	988 ESCONDIDO AVE SUITE A, Vista, CA 92084	X	5812	722211	Loma Alta

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Marco Italian Restaurant	1825 E. VISTA WAY, Vista, CA 92084		5812	722110	San Luis Rey
Margarita's Snacks	TOWNSITE/CITRUS Suite #E, Vista, CA 92083		5812	72231	Agua Hedionda
Mariscos El Pacifico	702 S SANTA FE AVE., VISTA, CA 92084, Vista, CA 92084	X	5812	722110	Agua Hedionda
Martha's Bakery	995 Postal Way #110, Vista, CA 92083	X	5461	311811	Agua Hedionda
Martin's	1004 S. SANTA FE AVE, Vista, CA 92084		5812	722	Agua Hedionda
Mc Donalds 12791	1470 N. SANTA FE AVE, Vista, CA 92083	X	5812	722211	Agua Hedionda
Mc Donalds 1959	827 S. SANTA FE AVE, Vista, CA 92083	X	5812	722211	Agua Hedionda
Mexican Buffet	1234 S SANTA FE AVE, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	Agua Hedionda
Mexiplus Vista, LLC dba Taco Pablo's	530 HACIENDA DR, Vista, CA 92084	X	5812	722211	Agua Hedionda
Mi Pueblito Mexican & Seafood Inc.	815 N. SANTA FE AVE, Vista, CA 92084	X	5812	722211	Agua Hedionda
Mi Tiendita Market	700 Townsite Drive , Vista, CA 92083	X	5411	445110	Agua Hedionda
Mr. A's Liquor Deli	254 VISTA VILLAGE DR, Vista, CA 92084	X	5812	722211	Agua Hedionda
Naked Bean - Vista	530 HACIENDA DR Suite #101, Vista, CA 92083	X	5812	722212	Agua Hedionda
Nanay's Oriental & Fish Market	1350 E Vista Way, Suite 9, Vista, CA 92083	X	5812	722211	Agua Hedionda
New Panda Buffet	1040 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722212	Agua Hedionda
Nikos Burgers	1004 S. Santa Fe Ave., Vista, CA 92084	X	5812	722211	
Nucci's Italian Cafe Pizza Pas	1580 S. MELROSE DR Suite #108, Vista, CA 92083	X	5812	722110	Agua Hedionda
Nuevo Vallarta Restaurant	825 WILLIAMSTON ST, Vista, CA 92084	X	5812	722211	Agua Hedionda
Oggi's Pizza & Brewing Co.	425 S. MELROSE, Vista, CA 92083	X	5812	722110	Agua Hedionda
Ohana Hawaiian BBQ	620 HACIENDA DR Suite #106, Vista, CA 92083	X	5812	722211	Agua Hedionda
Oscar's Mexican Food	822 E VISTA WAY, VISTA, CA 92085, Vista, CA 92085	X	5812	722211	Agua Hedionda
Paeteria La Mixteca	1110 North Santa Fe Ave, Suite F, Vista, CA 92084	X	5812	722213	Agua Hedionda
Palomar Pizza	3265 BUSINESS PARK DR A, Vista, CA 92081	X	5812	722110	Agua Hedionda
Pam's Donuts & Ice Cream	510 HACIENDA DR 109, Vista, CA 92083		5461	722213	Agua Hedionda
Pan Don Felipe's Mexican Bakery	613 S. Santa Fe, Vista, CA 92084	X	5461	722213	
Panda Express, Inc.	20 Maint St. Suite #160, Vista, CA 92084	X	5812	722211	Agua Hedionda
Panda Express #1262	316 Sycamore Ave., Vista, CA 92083				
Panera Bread	401 Vista Village Dr, Ste. A, Vista, CA 92053	X	5812	722211	Agua Hedionda
Papa John's Pizza	485 S. MELROSE DR Suite #E, Vista, CA 92083	X	5812	722211	Agua Hedionda
Pepe's Fruits and Salads	1116 Sycamore Ave #C-102, Vista, CA 92081	X	5812	722213	Agua Hedionda
Pepper Tree Frosty	270 S SANTA FE AVE, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Pescadaria Fish Market	403 N Santa Fe Ave, Vista, CA 92083	X	5421	445220	Agua Hedionda
Pho Little Saigon Vietnamese	1717 E VISTA WAY, SUITE 101-102, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	
Pho Lucky	770 Sycamore Ave # E & F, Vista, CA 92081	X	5812	722110	Agua Hedionda
Pick Up Stix-Vista #7214	251 S. MELROSE DR Suite #303, Vista, CA 92083	X	5812	722211	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Picket Fence	945 S. SANTA FE AVE, Vista, CA 92084	X	5812	72211	Agua Hedionda
Pineapple Joe's	35 Main St., C-140, Vista, CA 92083		5812	445110	Buena Vista
Pizza Factory	1910 Shadowridge Dr. Suite #101, Vista, CA 92083	X	5812	722110	Agua Hedionda
Pizza Hut Inc	1591 E. VISTA WAY Suite #B, Vista, CA 92084	X	5812	722211	Agua Hedionda
Playa Azul Seafood Restaurant	1281 N SANTA FE AVE Suite #X, Y, Vista, CA 92084	X	5812	722211	Agua Hedionda
Polly's Pies Inc dba	540 W. VISTA WAY, Vista, CA 92083		5812	711111	Buena Vista
Popeyes Fried Chicken dba	1817 W. VISTA WAY Suite #F, Vista, CA 92083	X	5812	722211	Agua Hedionda
Primo Food Market	1535 W. VISTA WAY, Vista, CA 92083	X	5411	445110	Agua Hedionda
Quizno's Subs	485 S Melrose Dr #112, Vista, CA 92084	X	5812	722211	Agua Hedionda
Rancho del Oro	1281 N. Santa Fe Ave #K, Vista, CA 92084	X	5411	445110	Agua Hedionda
Rancho Grande Mexican & Seafood	102 S SANTA FE AVE, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	Agua Hedionda
Restaurant y Panderia Montealban	1275 S SANTA FE AVE., SUITE 108, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	
Rice King	3265 Business Park Drive, Suite C, Vista, CA 92083	X	5812	722211	Agua Hedionda
Rice King 12	573 W. VISTA WAY Suite #G, Vista, CA 92083	X	5812	722211	Agua Hedionda
Ricedle Chinese Cuisine	1611 S. MELROSE DR Suite #P, Vista, CA 92081	X	5812	722110	Agua Hedionda
Rin's Coffee Car @ Vista Medical Plaza	2067 W. VISTA WAY, Vista, CA 92083	X	5812	722213	Agua Hedionda
Rio Grande Taco Shop	1587 E. Vista Way, C., Vista, CA 92084		5812	722211	Agua Hedionda
Rivet's Deli	2515 Pioneer Ave #5, Vista, CA 92081	X	5812	722211	Agua Hedionda
Rj's Big Dog	1782 Felicita Lane, Vista, CA 92083			722	
Rodeos Meat Market	356 VISTA VILLAGE DR, Vista, CA 92083	X	5421	445210	Agua Hedionda
Round Table Pizza	923 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	72221	Agua Hedionda
Rubio's Baja Grill	1711 UNIVERSITY DR Suite #110, Vista, CA 92083	X	5812	722211	Agua Hedionda
Rudys Coyote Cafe	1450 N. SANTA FE AVE Suite #Y, Vista, CA 92083	X	5812	722211	Agua Hedionda
Rymich Corp dba Togo's	485 S. MELROSE Suite #C, Vista, CA 92083		5812	722	Buena Vista
SNCI, Inc.	1680 S. Melrose Dr., Vista, CA 92083		5411	445110	
Sachi Japanese Restaurant	530 HACIENDA DR Suite #104, Vista, CA 92083	X	5812	722110	Agua Hedionda
Salsa Market	1100 N. SANTA FE AVE, Vista, CA 92083	X	5411	445110	Loma Alta
San Giorgio Lucano	1280 E VISTA WAY, SUITE #1, VISTA, CA 92084, Vista, CA 92084	X	5812	722110	
Santorini Island Grill Vista, L L C	3295 Business Park Dr. Suite D, Vista, CA 92081	X	5812	722110	Agua Hedionda
Slater's Donut Shop	625 N. Santa Fe Ave, Vista, CA 92083	X	5461	722213	Agua Hedionda
Smitty's Downtown	119 E. BROADWAY, Vista, CA 92084	X	5813	722410	Agua Hedionda
Solano Bakery	203 MAIN ST, Vista, CA 92083	X	5461	3118	Agua Hedionda
Sonny's Back East	777 E Vista Way #206, Vista, CA 92084	X	5812	722211	Agua Hedionda
Sonrise Fast Food and Deli	800 Escondido Ave #F, San Marcos, CA 92084	X	5812	722211	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Souplantation	1860 UNIVERSITY DR, Vista, CA 92083	X	5812	722212	Agua Hedionda
Sprouts Farmers Market	225 Vista Village Drive, Vista, CA 92083	X	5411	445110	Agua Hedionda
Stagecoach Inn	1865 W. VISTA WAY, Vista, CA 92083	X	5813	722410	Agua Hedionda
Starbucks Coffee #5366	1711 UNIVERSITY DR #150, Vista, CA 92083	X	5812	722213	Agua Hedionda
Starbucks Coffee #5838	251 S. MELROSE DR Suite #301, Vista, CA 92083	X	5812	722213	Agua Hedionda
Starbuck's Coffee #6676	30 Main St, #190, Vista, CA 92083	X	5812	722213	Agua Hedionda
Starbucks Coffee #6791	1631 MELROSE DR, VISTA, CA 92081, Vista, CA 92081	X	5812	722213	Agua Hedionda
Stater Bros Market #156	780 Sycamore Ave, Vista, CA 92083	X	5411	445110	Agua Hedionda
Stater Bros. Market #157	1451 N. Santa Fe Ave., Vista, CA 92084	X	5411	445110	Agua Hedionda
Sub Shop # 195	1289 E. Vista Way, Vista, CA 92084	X	5812	722211	Agua Hedionda
Submarina	320 Sycamore, Vista, CA 92083				
Submarina	942 S. SANTA FE AVE, Vista, CA 92084	X	5812	722211	Buena Vista
Submarina (Business Park)	3231 Business Park Dr. Suite 4, Vista, CA 92081	X	5812	722211	Loma Alta
Subway #24598/Subway Life, Inc.	1711 UNIVERSITY DR Suite #120, Vista, CA 92083	X	5812	722211	Agua Hedionda
Subway #32111	20 Main St. Suite #150, Vista, CA 92083	X	5812	722211	Agua Hedionda
Subway Sandwiches & Salads #22847	1031 S SANTA FE AVE, SUITE #B, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Buena Vista
Subway Sandwiches & Salads 2208	950 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Sun Hing Buffet LLC	1960 Hacienda Dr , Vista, CA 92081	X	5812	722212	Agua Hedionda
Sunrise Cafe	1250 S. SANTA FE AVE Suite #3, Vista, CA 92083	X	5812	722110	Agua Hedionda
Sushi Cafe	3245 Business Park Dr. Suite #2, Vista, CA 92081	X	5812	722110	Agua Hedionda
Taco Bell 15435	1800 UNIVERSITY DR, Vista, CA 92083	X	5812	722211	Agua Hedionda
Taco Bell 17787	910 E VISTA WAY, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Agua Hedionda
Taco Bell 20413	3271 BUSINESS PARK DR, Vista, CA 92083	X	5812	722211	Buena Vista
Thai Pasta	1876 Hacienda Dr., Vista, CA 92083	X	5812	722110	Agua Hedionda
The Awesome Bean Coffee Company	2147 E. VISTA WAY, Vista, CA 92084	X	5812	722213	San Luis Rey
The Original Pancake House	435 S. MELROSE, Vista, CA 92083	X	5812	722110	Agua Hedionda
The Snack House	1580 S. MELROSE DR Suite #117, Vista, CA 92084	X	5461	722213	Agua Hedionda
The Village Bagel Co. (Guerin Mngmt)	485 S. Melrose Dr. #106, Vista, CA 92081	X	5461	722110	Agua Hedionda
Three Sisters Catering, Inc.	1589-A East Vista Way, Vista, CA 92083	X	5812	722320	Agua Hedionda
Tom's No. 24 Restaurant	1110 SYCAMORE AVE, Vista, CA 92083	X	5812	722211	Agua Hedionda
Tortilleria Los Reyes	218 MAIN ST, Vista, CA 92083	X	5812	722211	Agua Hedionda
Two Brothers From Italy	986 E VISTA WAY, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Buena Vista
Two Brothers From Italy	1651 S. MELROSE DR Suite #C, Vista, CA 92081	X	5812	722110	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Upper Crust Pizza	1330 E VISTA WAY, SUITE #2, VISTA, CA 92084, Vista, CA 92084	X	5812	722211	Buena Vista
Vaqueros Mexican Food	1740 E. VISTA WAY, Vista, CA 92084	X	5812	722211	Agua Hedionda
Vera's Tamale Express	400 Sycamore Ave, Vista, CA 92083	X	5812	722211	Buena Vista
Village Cafe	406 MAIN ST, Vista, CA 92083	X	5812	722211	Agua Hedionda
Vista Chinese Food	828 N. Santa Fe Ave #A1, Vista, CA 92083	X	5812	722110	Agua Hedionda
Vista Donuts	879 S SANTA FE AVE, VISTA CA 92083, Vista, CA 92083	X	5461	722213	Loma Alta
Vista Entertainment Center	435 W. VISTA WAY, Vista, CA 92083	X	5812	722211	Agua Hedionda
Vista Oriental Market	1021 N. SANTA FE AVE F, Vista, CA 92084	X	5411	445110	Agua Hedionda
Vista Way Cafe	868 E Vista Way, Vista, CA 92084	X	5812	722110	Agua Hedionda
Vista's Ice Box	777 E. VISTA WAY Suite #204, Vista, CA 92084	X	5812	722	Buena Vista
Vons Grocery #2121	940 S. Santa Fe Ave., Vista, CA 92083	X	5411	445110	Agua Hedionda
Wasabi Japanese Cuisine	1688 S. MELROSE DR Suite #212, Vista, CA 92083	X	5812	722110	Agua Hedionda
Wendy's Restaurant #16	567 W. VISTA WAY, Vista, CA 92083	X	5812	722211	Agua Hedionda
Wicked Good Pizza	749 Shadow Ridge Dr., Vista, CA 92083	X	5812	722110	Agua Hedionda
Wienerschnitzal 287	901 S SANTA FE AVE, VISTA, CA 92083, Vista, CA 92083	X	5812	722211	Agua Hedionda
Yacoolberry (@ LA Fitness)	680 Hacienda Dr., Vista, CA 92081				Buena Vista
Yogurt Giant	1817 W. VISTA WAY Suite #E, Vista, CA 92083	X	5812	722211	Agua Hedionda
Yum Yum Donut Franchise 5050d	924 S SANTA FE AVE, VISTA CA 92083, Vista, CA 92084	X	5461	722213	Agua Hedionda
(k) Mobile Carpet & Upholstery Cleaning					
Advance Carpet Cleaning & Bldg.	278 PASEO MARGUERIT , Vista, CA 92084			56174	San Luis Rey
Affordable Carpet Care And Jch Enterprises	1611 S Melrose Ave #170-a, Vista, CA 92081			56174	
Affordable Carpet Care&Jch Ent	418 SANTA CLARA DR , Vista, CA 92083			56174	Buena Vista
Alliance Disaster & Restoration Services	1487 POINSETTIA AVE #126, Vista, CA 92083			56174	Agua Hedionda
Andy's Carpet Cleaner	352 N Santa Fe Ave , Vista, CA 92083			56174	
Bankert's Cleaning Service	1047 ORA AVO DR , Vista, CA 92084			56174	
C & J Discount Carpet Care	1004 Marlin Dr. , Vista, CA 92084			56174	
Clean As A Whistle Carpet Care	2220 WATSON WAY #193, Vista, CA 92083			56174	Agua Hedionda
Heaven's Best Carpet & Upholstery	104 Hill Dr , Vista, CA 92083			56174	Buena Vista
Hydra Vac	1037 GLENMERE RD , Vista, CA 92084			56174	Buena Vista
Ken Co	116 AZALEA #f, Vista, CA 92083			56174	Buena Vista
Living Waters Carpet & Upholstery	18045 SATICOY ST , Reseda, CA 91335			56174	
Mckenna's Carpet	1275 Tower Dr , Vista, CA 92083			56174	
Miller Carpet Care	512 W. California Ave., Vista, CA 92083			56174	Agua Hedionda
Paul's Pressure Washing	751 E. VISTA WAY #81, Vista, CA 92084			56172	Buena Vista

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Rancho Carpet Cleaning Inc.	1157 S Santa Fe Ave , Vista, CA 92083			56174	
River Carpet Cleaning	1610 Calle Jules , Vista, CA 92084			56174	
Ruben's Carpet Cleaning	4182 Lonnie St , Oceanside, CA 92054			56174	
Showcase Textile Care	904 JUDILYN DR , Vista, CA 92083			56174	Buena Vista
Superior Carpet Cleaning	926 Westport Ln , Vista, CA 92084			56174	
The Torrey Pines Co., Inc.	2560 FORTUNE WAY , Vista, CA 92083			56174	Agua Hedionda
Thompson's Xtreme Cleaning Co.	200 Plymouth Dr. , Vista, CA 92084			56174	
(l) Cement Mixing or Cutting or (m) masonry					
Allied Stone Group, LLC	2141 INDUSTRIAL CT #F, Vista, CA 92083			23543	Agua Hedionda
American Concrete Cutting & Cor	1217 DISTRIBUTION WAY , Vista, CA 92083			23599	Agua Hedionda
American Tile Company	1253 ACTIVITY DR #A, Vista, CA 92083			23599	Agua Hedionda
Antonio Maola Concrete Pumping	603 RANCHO VISTA RD , Vista, CA 92083			23599	Agua Hedionda
Araiza Paving & Grading	550 W. VISTA WAY #110, Vista, CA 92083			23411	Buena Vista
Betz Concrete, Inc.	1217 DISTRIBUTION WAY , Vista, CA 92084			23599	Agua Hedionda
Capt N Kidd Services, Inc	1590 TIERRA DEL CIEL , Vista, CA 92084			23541	Buena Vista
Coppock Pool & Spa	719 SUNSET DR , Vista, CA 92083			23599	Agua Hedionda
Cornerstone Marble Gran & Tile	1205 AVENIDA CHELSEA #B, Vista, CA 92083			23599	Agua Hedionda
D W Masonry Wright	1919 SUNSET DR , Vista, CA 92083			Unassig ned	Agua Hedionda
Dc Concrete And Masonry	1710 JONATHON ST , Vista, CA 92083			23541	Buena Vista
Euro Tile	383 N Melrose Dr #B, Vista, CA 92083			23543	
Fitzpatrick Construction	2203 BAUTISTA AVE , Vista, CA 92084			23	San Luis Rey
Fleetwood Masonry	1775 YORK AVE , Vista, CA 92084			Unassig ned	Buena Vista
G & F Custom Plastering	664 E. VISTA WAY #E, Vista, CA 92084			Unassig ned	Buena Vista
Garza Grading & Paving	755 NORTH DR , Vista, CA 92083			23599	Buena Vista
Geogrid Retaining Wall Systems, Inc	1295 DISTRIBUTION WAY , Vista, CA 92083			23	Agua Hedionda
Honor Life Memorials	955 PARK CENTER DR , Vista, CA 92083			23541	Agua Hedionda
Innovations In Marble And Tile	1128 PORTOLA ST , Vista, CA 92084			23599	Buena Vista
Olivares Plastering	2227 CATALINA AVE , Vista, CA 92084			23599	Buena Vista
Padilla Construction	552 OLIVE ST , Vista, CA 92083			23542	Buena Vista
Perfect Paving Grading & Seal	1641 MONTE MAR DR , Vista, CA 92083			23599	Buena Vista
Pool Genie	1453 SUNRISE DR #B, Vista, CA 92084			23599	Buena Vista
Precision Concrete	1495 POINSETTIA AVE #145, Vista, CA 92083			2357	Agua Hedionda
Prestige Tile And Marble Installation Co	2168 OPAL RIDGE , Vista, CA 92084			235430	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Santa Fe Paving	602 LEMON AVE , Vista, CA 92084			23599	Buena Vista
Swanson Studios	339 OLIVE AVE , Vista, CA 92083			23543	Buena Vista
T.D. Tile	1485 POINSETTIA AVE , Vista, CA 92083			23543	Agua Hedionda
Western Concrete Pumping, Inc	2181 LA MIRADA DR , Vista, CA 92083			23491	Agua Hedionda
(n) Painting & Coating					
(cho)2 Home Services	955 Postal Way #56, Vista, CA 92083			811	Buena Vista
A C Coating	512 W. CALIFORNIA ST #116, Vista, CA 92083			23521	Buena Vista
Altura Paint & Supply	1850 HACIENDA DR #15, Vista, CA 92083			23599	Buena Vista
Calvert Painting	1161 LARK HILL DR , Vista, CA 92084			23599	San Luis Rey
Capital Painting Corporation	216 E. BROADWAY , Vista, CA 92084			23599	Buena Vista
Capital Painting Corporation 1	512 W CALIFORNIA AVE #204, Vista, CA 92084			2352	Buena Vista
El Carpi Jr. Construction	610 COCAPAH ST , Vista, CA 92083			811	Agua Hedionda
Fred A. Jones Painting	1407 BONAIR DR , Vista, CA 92084			23599	Buena Vista
J B Coating	219 S. SANTA FE AVE #137, Vista, CA 92083			23521	Buena Vista
J S Custom Painting	1722 FOOTHILL , Vista, CA 92084			23599	Buena Vista
J.B. Handyman	326 SAN DEL DR , Vista, CA 92083			811	Agua Hedionda
Jackpot Painting	391 OLIVE AVE , Vista, CA 92083			23599	Buena Vista
Joe Lane Custom Painting	1105 COLLINSWOOD LN , Vista, CA 92083			23521	Buena Vista
Lopez Demolition	318 Arnel Ave , Vista, CA 92083			23594	Agua Hedionda
Main Painting Co	121 HANES PL , Vista, CA 92084			23599	Buena Vista
Medel Painting	934 N Santa Fe Ave , Vista, CA 92083			2352	
Michael A. Eddy Painting	1930 WATSON WAY #1, Vista, CA 92083			332812	Agua Hedionda
Rainbow Painting	561 Emerald Drive , Vista, CA 92083			2352	
Rivera's Painting	239 PALA VISTA DR #11, Vista, CA 92083			2352	Buena Vista
Ronald W. Card	758 LAZY CIR , Vista, CA 92083			2352	Buena Vista
Ryan's Painting	666 TOWNSITE DR , Vista, CA 92084			2352	Buena Vista
Stark Painting Inc	2525 PIONEER AVE #1, Vista, CA 92083			23599	Agua Hedionda
Terry's Painting	533 SUNSET DR , Vista, CA 92083			23599	Agua Hedionda
Vision Painting	810 N Citrus , Vista, CA 92084			2352	Buena Vista
(p) Landscaping					
Ald Designs	29122 LAUREL VALLEY DR , Vista, CA 92084			54132	Buena Vista
Alta Vista Lawn Care	534 W. CALIFORNIA AVE #4, Vista, CA 92083			56173	Buena Vista
Andres Gardening & Hndymn Svc	1984 WARMLANDS AVE , Vista, CA 92084			56173	Buena Vista
Artistic View	405 PALMBARK , Vista, CA 92083			56173	Buena Vista
Brians Landscape And Maintenance	452 W Los Angeles Dr , Vista, CA 92083			54132	
Brother's In Law Landscaping	343 Gail Dr , Vista, CA 92084			811	
Brothers Maint	320 ACATENO AVE , Vista, CA 92083			56173	Buena Vista

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Casas Tree Service	755 HIGHLAND DR , Vista, CA 92083			Unassigned	Buena Vista
Castillo Landscaping	1424 Bonair Road #11, Vista, CA 92084			56173	
Chlorophyll Kid	916 JUDILYN DR , Vista, CA 92083			56173	Buena Vista
Classic Touch Landscape Maint	2185 HAWLEY DR , Vista, CA 92084			56173	San Luis Rey
Cole Landscape	824 Earth Dr , Vista, CA 92083			54132	
Condominium Services Company	402 OLIVE AVE #B, Vista, CA 92083			54132	Buena Vista
Cortez Tree Service	720 W. CALIFORNIA AVE , Vista, CA 92083			Unassigned	Buena Vista
Countryside Landscape	2049 E. VISTA , Vista, CA 92084			56173	San Luis Rey
Cox Landscape	947 Sheffield Dr , Vista, CA 92081			56173	
Cutters Source	1334 N. MELROSE DR #C, Vista, CA 92083			4442	Loma Alta
D&S and Sons Landscaping	133 Bellevivie Ct., Vista, CA 92084				
Dan Boteler Landscaping	579 MAR VISTA DR , Vista, CA 92083			23599	Agua Hedionda
Darrel D Rose Landscaping	508 MOA DR , Vista, CA 92083			56173	Loma Alta
Enrique Chavez	209 Hawthorne Circle , Vista, CA 92083			56173	
Fernando's Tree Service	280 Alestar St #4, Vista, CA 92083			54132	
Final Touch Landscaping	856.5 Mason Rd , Vista, CA 92084			56173	
G&F Landscape	1593 E. VISTA WAY #A, Vista, CA 92084			54132	Buena Vista
Garcia's Tree & Landscape Svc	156 ROBELINI DR , Vista, CA 92083			56173	Agua Hedionda
Gonzalez Tree Svc & Lndscpng	314 ACATENO AVE , Vista, CA 92084			56173	Buena Vista
Green Meadows Lawn Service	1243 ARCADIA AVE #C, Vista, CA 92084			56173	Buena Vista
Green Weaver Landscaping Services	527 Huff St. , Vista, CA 92083			56173	
Greenness Design	1146 SUNSET DR , Vista, CA 92083			56173	Agua Hedionda
Hernandez Gardening	401 W California Ave #17, Vista, CA 92083			56173	
Hernandez Lndscpg & Grdng Svc	952 WELLPOTT PL , Vista, CA 92084			56173	Buena Vista
Invision Landscape Inc.	1366 Brewley Lane , Vista, CA 92083			54132	
J. R. Landscaping & Maintenance	950 Arcadia Ave. #40, Vista, CA 92084			56173	
Jackson Landscape Construction	2202 BAXTER CANYON RD , Vista, CA 92083			56173	Agua Hedionda
Jmb Landscaping & Tree Service	310 BANDINI PL , Vista, CA 92083			Unassigned	Buena Vista
Joel Hernandez R	1804 Christi Dr , Vista, CA 92084			54132	
Kaufman Masonry & Landscape Supply	845 W. VISTA WAY , Vista, CA 92083			44411	Buena Vista
Las Palmas Landscape Mtc	309 LADO DE LOMA DR , Vista, CA 92083			56173	Buena Vista
Leituala Tree Work And General Maintenance	156 Pond Place #23, Vista, CA 92083			54132	

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Life Gardening Svcs	1803 MANZANITA CT , Vista, CA 92083			56173	Buena Vista
Martin Zurita	1150 Meadow Lake Dr., #6, Vista, CA 92084				
Mobile Handyman And Landscape	848 Smith Dr , Vista, CA 92084			811	
Monica's Garden	2304 AZURE LN , Vista, CA 92081			42293	Buena Vista
N J Landscaping	2330 Azure Lane , Vista, CA 92081			54132	
North County Tree Service	1431 HEDIONDA AVE , Vista, CA 92084			Unassigned	Agua Hedionda
Pascual Perez	1200 E Taylor St , Vista, CA 92084			54132	
Rafael Sanchez Maint	206 W. CALIFORNIA AVE , Vista, CA 92083			56173	Buena Vista
Rancho Tree Service	425 REDLANDS ST , Vista, CA 92085			23599	Buena Vista
Rancho Vista Landscaping Inc.	1335 WARMLANDS AVE , Vista, CA 92084			56173	Buena Vista
Rey & Sons Landscaping	1653 Rush Ave., Vista, CA 92084				
Robles Landscaping	247 E. BOBIER DR , Vista, CA 92084			56173	Buena Vista
Slobo Landscaping	1735 STORMY LN , Vista, CA 92084			23599	Buena Vista
Tesoro Landscape / So Cal Landscape Svc	1045 HIGHLAND DR , Vista, CA 92083			56173	Agua Hedionda
The Lawn Center	603 S. SANTA FE AVE , Vista, CA 92083			4442	Buena Vista
The Vintage Rose	2057 PASEO LADERA , Vista, CA 92084			45311	Buena Vista
Tree Barber Enterprises, Inc.	1923 GOODWIN DR , Vista, CA 92084			54132	Agua Hedionda
Trotta Landscape	460 OCEANVIEW DR , Vista, CA 92084			54132	Buena Vista
Turf Star, Inc.	2110 LA MIRADA , Vista, CA 92083			56173	Agua Hedionda
(q) Nurseries					
Arellano Growers Whsl	2015 FOOTHILL DR , Vista, CA 92084	X	5193	42293	Buena Vista
American Horticultural Supply, Inc.	1345 Specialty Dr #A, Vista, CA 92081	X	5193	42293	Agua Hedionda
Buena Creek Nursery	1280 SUNSET DR , Vista, CA 92083	X	5193	42293	Agua Hedionda
Coopers Cactus	1097 Crest View Rd., Vista, CA 92081	X	5193	42294	Agua Hedionda
Esperanza Growers	1455 E. TAYLOR ST , Vista, CA 92084	X	5193	42293	Buena Vista
Fiamengo Nursery	1715 MONTE MAR RD , Vista, CA 92083	X	5193	424930	Buena Vista
H M S Co	1400 Arcadia Ave, Vista, CA 92084	X	5193	42293	Buena Vista
Holly Tackett	2161 Alta Vista Drive , Vista, CA 92084			42293	Buena Vista
Mikes Landscape & Nursery Co	753 N. EMERALD DR , Vista, CA 92083	X	1799	23599	Buena Vista
Rancho Garcia Nursery	1640 Bonair Rd., Vista, CA 92084	X			
Rainbow Gardens	1444 E. TAYLOR ST , Vista, CA 92084	X		42293	Buena Vista
South Coast Orchids	805 MAR VISTA DR , Vista, CA 92083		0181	111421	Agua Hedionda
Sunrise Estates Palms	1574 Parkview Dr , Vista, CA 92081			111421	
Torres Asuncion Growers	1712 Anza Ave., Vista, CA 92084	X		42293	Buena Vista
United Plant Growers, Inc.	1054 MAR VISTA , Vista, CA 92083			42293	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Warmland Nursery	1850 WARMLAND AVE , Vista, CA 92085			1114	Buena Vista
(r) Golf Courses & Other Rec. Facilities					
Festival Fun Parks, L L C - Arcade	1525 W. VISTA WAY , Vista, CA 92083	X	7999	713990	Loma Alta
Shadowridge Country Club	1980 GATEWAY DR , Vista, CA 92083			532292	Agua Hedionda
(s) Cemeteries					
Allen Bros Mortuary & Chapel	1315 S. SANTA FE AVE , Vista, CA 92083			81221	Buena Vista
Cremation Services Inc	2570 FORTUNE WAY D, Vista, CA 92083			81221	Agua Hedionda
Palm Crest Funeral & Cremation	2598 FORTUNE WAY I, Vista, CA 92083			81221	Agua Hedionda
(t) Pool Cleaning					
Bobby Watkins Family Pool & Spa Service	943 Crescent Dr , Vista, CA 92084			23599	
Cali Bunga Pool Cleaning	1260 Winchester Ct., Vista, CA 92083				
Double J Pool Service	1215 Allea Lane , Vista, CA 92083			Unassigned	
Got Pool Cleaning And Repair	1569 Green Oak Road , Vista, CA 92081			22131	
Integrity Pool Services	915 Marlin Drive , Vista, CA 92084			Unassigned	
Leahi Pool & Spa	510 N Melrose Ave #P-7, Vista, CA 92083			22131	
Pool Perfection	801 HILLSIDE TER 8, Vista, CA 92084			51224	Buena Vista
S & A Pool Service	528 Collyn St , Vista, CA 92083			22131	
Southland Plumbing & Pool Svc	3030 BLACKWELL DR , Vista, CA 92084			51224	Buena Vista
Watters Clean! Pool Service	1974 Wellington Lane, Vista, CA 92081				
(u) marinas					
None					
(v) porta-a-potty servicing					
None identified					
(w) Other					
AMERICAN SPORT BIKE	1341 Distribution Way #22, Vista, CA 92081		5571	441221	Agua Hedionda
ARTISTIC TILE & STONE	325 S. Santa Fe Ave., Vista, CA 92083		5211	444190	Buena Vista
BANKERS DIRECT AUTO SALES	536 N. SANTA FE AVE., VISTA, CA 92083		5521	4411	Buena Vista
Ceragem	1031 S Santa Fe Ave E, Vista, CA 92083		5999	446199	Agua Hedionda
Eddie's Market	415 N Santa Fe, Vista, CA 92084	X	5411	445110	Agua Hedionda
Napa Auto Parts Vista	1334 North Melrose Drive, G/H, Vista, CA 92083		5531	44131	Loma Alta
Nu Blocks, LLC	2420 Grand Ave, B, Vista, CA 92081	X	8731	541710	Agua Hedionda
Pelican Packaging Inc	2365 OAK RIDGE WAY, Vista, CA 92083		7389	56191	Agua Hedionda
Prudential Overall Supply	2485 ASH ST, Vista, CA 92083		7211	812321	Agua Hedionda
Rayne Water Of North County	2011 W.VISTA WAY, Vista, CA 92083		5499	445299	Buena Vista
RESTORONICS OF SAN DIEGO	1340 Specialty Drive #C, Vista, CA 92083	X	7629	811211	Agua Hedionda

APPENDIX C-1
Commercial Inventory

Business Name	Street Address	Inspected	SIC	NAIC	Watershed
Pam Soto's Pets (@Simbah's Dog House)	573 W. Vista Way, #E, Vista, Ca 92083				
(x) Tributary to 303(d)					
None identified					
(y) Directly to ESA					
None identified					
Paintball operations					
None identified					

Appendix D-1 Construction Inventory

High Priority Projects

<i>Inspector</i>	<i>Street Name</i>	<i>Street No</i>	<i>APN</i>	<i>Area (ac)</i>	<i>WDID</i>	<i>GP No</i>	<i>PROJ NAME</i>
<i>D. Shaw</i>	S. Melrose Dr.	635	166-150-46-00	6.28		06-012	Commercial / Retail
<i>F. Durazo</i>	Cielita Linda	1025	163-010-04-00	20		06-010	Gordon Properties
<i>G. Weiss</i>	La Mirada Ct.	2421	217-251-27-00	16.6		04-038	Seven (7) Industrial Buildings
<i>G. Weiss</i>	Sycamore Ave	877	217-023-61-00	5.03		06-054	Pocina Properties
<i>K. Groscup</i>	Copper Dr	719	164-081-05-00	6.1		05-020	56 Townhomes
<i>K. Groscup</i>	Grandview	1434	174-131-02-00	8		05-041	WARMLANDS 13
<i>K. Groscup</i>	San Clemente	2240	178-023-33-00	5.00	9 37C318694	02-021	Sun Villa Homes PC 02 021
<i>K. Groscup</i>	Taylor St E	385	171-162-24-00	7.04	9 37C317212	01-020	Rough Grading for PC 2-043- 9 lot subdivsn
<i>R. Ward</i>	Olive @ VVD					CIP	Olive Improvements CIP# 8043

Medium Priority Projects

<i>Inspector</i>	<i>Street Name</i>	<i>Street No</i>	<i>APN</i>	<i>Area (ac)</i>	<i>WDID</i>	<i>GP No</i>	<i>PROJ NAME</i>
<i>D. Shaw</i>	Vale View Drive	787	166-680-17-00	3.34	9 37C323095	04-048	SUNSET HEIGHTS - 5 lot subdivision
<i>D. Shaw</i>	Vista Village Dr.	307	164-205-12-00	3.5		06-009	Vista Village Phase IV
<i>G. Weiss</i>	Oleander	2565				01-022	5 Lot Sub
<i>G. Weiss</i>	Hilo Way	702	183-460-19-00	3.25	9 37C322096	03-026	No Activity - GRADING PLAN NO 03
<i>G. Weiss</i>	Melrose Way	1276	166-182-04-00	2.92	9 37C322097	03-088	GRADING PLAN NO 01 **IS PROJECT ACTIVE?/ YES**
<i>K. Groscup</i>	Kings Road	1786	174-041-05-00	1.65		03-070	SFR
<i>K. Groscup</i>	Mesa Verde	1653	177-021-13-00	1.2		05-055	SFR
<i>K. Groscup</i>	Vista Grande	2328	171-092-01-00	2.76	9 37C322552	None Yet	VISTA GRANDE EST.
<i>K. Groscup</i>	Warmlands	2346	171-240-18-00	1.78		03-036	3 SFR
<i>R. Ward</i>	Melrose S.	326	164-230-71-00	1.17	9 37C326833	05-017	VISTA EXECUTIVE PLAZA/permit issued 11/1/05
<i>R. Ward</i>	Sunset Dr.	1805	169-022-02-00	2.4		05-012	SFR

Low Priority Projects

<i>Inspector</i>	<i>Street Name</i>	<i>Street No</i>	<i>APN</i>	<i>Area (ac)</i>	<i>WDID</i>	<i>GP No</i>	<i>PROJ NAME</i>
<i>D. Shaw</i>	Alta Vista Dr	1925	180-060-63-00	.28		06-016	SFR
<i>D. Shaw</i>	Ridge Rd.	1311	169-160-38-00	.40		05-015	SFR
<i>D. Shaw</i>	Rocking Horse Rd	760	169-251-43-00	.56		06-055	SFR
<i>D. Shaw</i>	Sunset Dr	930	183-012-36-00	.23		06-002	SFR
<i>D. Shaw</i>	Vista Village Dr	303	164-205-11-00	.65		06-018	Famous Dave's Restaurant
<i>F. Durazo</i>	Bobier E.	572	173-521-54	.25		02-048	SFR
<i>F. Durazo</i>	Emerald/Grapevine					CIP	Intersection
<i>F. Durazo</i>	Knapp Dr	1834	159-161-19-00	.5		03-050	SFR
<i>G. Weiss</i>	Business Park Dr.	3181	221-661-02-00	3.09		06-006	Business Park Car Wash
<i>G. Weiss</i>	Rolling Hills	627	183-190-57-00	1.24		04-023	SFR
<i>G. Weiss</i>	Sycamore Ave	867	217-023-56-00	1.10		05-022	SYCAMORE MONTESSORI SCHOOL
<i>K. Groscup</i>	Alta Vista	1438	177-062-52-00	0.66		03-072-M	SFR
<i>K. Groscup</i>	Maxwell Ln	1534	174-020-37-00	.49		3199A	SFR
<i>K. Groscup</i>	Tres Ninos Ct	1120	181-083-21-00	.66		05-038	SFR
<i>K. Groscup</i>	Valley Dr	916	181-022-17-00	.52		05-040	SFR
<i>K. Groscup</i>	Valley Dr.	908	181-022-18-00	.53		05-044	SFR
<i>R. Ward</i>	Golden Trail	1090	179-270-46-00	.50		05-036	SFR



CITY OF VISTA

Storm Water Compliance

Storm Water Compliance is taken seriously:

- The Storm Water Pollution Prevention Plan (SWPPP) is to be on site and available for review by City or Regional Board personnel.
- Amend SWPPP daily, weekly, or as needed.
- Maintain Best Management Practices (BMP's) all year.
- Have a designated onsite person to be in charge of BMP's.
- Have weather triggered action plan in place before it rains and be prepared to use back up BMP's prior to the rain event. *You will be cited if sediment is leaving your site.*
- Confer with sub-contractors and educate them on BMP maintenance. They also share in the responsibility.

Protocol for Enforcement:

- Correction required—verbal warning from Engineer Inspector.
- Correction required—written field memo from Engineer Inspector, copy to City Supervisor and Compliance Officer.
- Project receives either—corrective action verified or, Stop Work Order or Notice of Violation.
- Project receives either—corrective action verified or, Citation.
- Project receives either—corrective action verified or, Civil or Criminal Prosecution.

If you have any questions regarding storm water compliance issues, please contact Sandra Sotola, Storm Water Code Compliance Officer at 760-726-1340, ext. 1334.

ONLY RAIN IN THE STORM DRAIN

Appendix D-3 Construction Inspection Form



Print Date:
1/17/2007

PRIORITY: #Name?

Site ID: #Name?

Municipal NPDES Stormwater Permit

CONSTRUCTION ACTIVITIES INSPECTION FORM

Project Name/Description: #Name?		APN: #Name?	
Inspector: #Name?	Project Location: #Name?	Size of Site (acres): #Name?	
Covered under Statewide General Construcion Permit? <input type="checkbox"/> Check if YES		If yes, is SWPPP on-site? <input type="checkbox"/> Check if YES	WDID: #Name?
Contact Person: #Name?	Contact Phone: #Name?	Emergency Phone: #Name?	
Bldg. Permit No: #Name?	Grading Plan No: #Name?	Disturbed area (sq. ft): #Name?	

DATE OF INSPECTION _____	% COMPLETE: _____
<i>Checking the boxes below means that the particular BMP is in place-even if it is ineffective. If it is ineffective - note action and comments below.</i>	PHASE: _____

Erosion Control BMPs: Is there evidence of erosion at the project site? YES ☐ No ☐

<input type="checkbox"/> Preserving Existing Vegetation	<input type="checkbox"/> Hydroseeding	<input type="checkbox"/> Soil Binders, Hydraulic Mulch	<input type="checkbox"/> Permanent Landscaping
<input type="checkbox"/> Geotextiles, Plastic Covers, Erosion Control Blankets/Mats	<input type="checkbox"/> Diversion Channel for Run-On	<input type="checkbox"/> Other Type: _____	

Sediment Control BMPs: Is there evidence of offsite sediment or sediment discharge? YES ☐ No ☐

<input type="checkbox"/> Perimeter Protection:	<input type="checkbox"/> N/A	<input type="checkbox"/> Gravel Bags	<input type="checkbox"/> Silt Fencing	<input type="checkbox"/> Fiber Rolls	<input type="checkbox"/> Other _____
<input type="checkbox"/> Slope Protection:	<input type="checkbox"/> N/A	<input type="checkbox"/> Silt Fencing	<input type="checkbox"/> Fiber Rolls	<input type="checkbox"/> Slope Drains	<input type="checkbox"/> Other _____
<input type="checkbox"/> Resource Protection (environmentally sensitive areas and waterways)					
<input type="checkbox"/> Sediment Capture:	<input type="checkbox"/> N/A	<input type="checkbox"/> Detention Basin	<input type="checkbox"/> Desilting Basin	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Velocity Reduction:	<input type="checkbox"/> N/A	<input type="checkbox"/> Check Dams	<input type="checkbox"/> Rip Rap	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Off-Site Sediment Tracking:	<input type="checkbox"/> N/A	<input type="checkbox"/> Gravel Entrance	<input type="checkbox"/> Temporary Construction Road	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Inlet Protection:	<input type="checkbox"/> N/A	<input type="checkbox"/> Gravel Bags	<input type="checkbox"/> Gravel Rolls	<input type="checkbox"/> Fiber Rolls	<input type="checkbox"/> Other _____
<input type="checkbox"/> Other Type: _____					

Materials Management BMPs: Are activities or storage of materials/wastes resulting in discharge offsite? [For example-paints, concrete, plastering] Yes ☐ No ☐

<input type="checkbox"/> Spill Prevention and Control Program (employee education and training)					
<input type="checkbox"/> Fuel Chemicals Stored On-Site:	<input type="checkbox"/> N/A	<input type="checkbox"/> Secondary Containment	<input type="checkbox"/> Leak Detection	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Equipment Related Wastes:	<input type="checkbox"/> N/A	<input type="checkbox"/> Covered	<input type="checkbox"/> Secondary Containment	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Stockpile On-Site (Solids):	<input type="checkbox"/> N/A	<input type="checkbox"/> Covered	<input type="checkbox"/> Secondary Containment	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Trash/Litter On-Site:	<input type="checkbox"/> N/A	<input type="checkbox"/> Receptacles Provided	<input type="checkbox"/> Covered	<input type="checkbox"/> Secondary Containment	
<input type="checkbox"/> Other _____					
<input type="checkbox"/> Concrete Waste:	<input type="checkbox"/> N/A	<input type="checkbox"/> Designated Washout Area	<input type="checkbox"/> Secondary Containment	<input type="checkbox"/> Other _____	
<input type="checkbox"/> Sanitary Waste:	<input type="checkbox"/> N/A	<input type="checkbox"/> Secondary Containment	<input type="checkbox"/> Located away from inlets	<input type="checkbox"/> Other _____	

Comments:

Enforcement Action:	<input type="checkbox"/> No Action	<input type="checkbox"/> Verbal Warning	<input type="checkbox"/> Correction Notice	<input type="checkbox"/> Stop Work	<input type="checkbox"/> Admin Cite	<input type="checkbox"/> NOV
Follow Up? <input type="checkbox"/>	Follow Up Date: _____					
Signature _____	Date: _____					

Appendix D-4
Rainy Season Notification Letter

November 3, 2005

Dear Contractor/Developer/Owner:

Construction Site Stormwater Management
*****Rainy Season*****

The rainy season is upon us. The City of Vista is sending this letter to remind you of your responsibilities for construction site stormwater management and pollution prevention. In accordance with the State regulations (RWQCB Order 2001-01) and City of Vista ordinance (Municipal Code 13.18 and 17.56), you are required to implement and maintain the following Best Management Practices on a **year-round basis**:

- Erosion control (e.g. physical slope protection, vegetation, etc.);
- Sediment control (e.g. site perimeter, inlet and stockpile protection, tracking controls, etc.);
- Materials management (e.g. designated storage areas, proper labeling, secondary containment, etc.); and
- Ongoing updates to Stormwater Pollution Prevention Plan (SWPPP), as appropriate.

Additionally, during the **rainy season** you must **also** do the following:

- ✓ Have a “weather-triggered” action plan for deploying standby BMPs to completely protect exposed areas within 48 hours of a predicted storm event (where a predicted storm event is defined as a forecasted 40% chance of rain). Be able to provide proof of this requirement if requested by City or State inspector;
- ✓ Store a minimum of 125% of the materials needed to implement standby BMPs to prevent erosion and sediment discharges;
- ✓ The amount of exposed soil shall not exceed that which can be adequately protected by deploying standby erosion and sediment control prior to a predicted storm;
- ✓ Fully protect any disturbed areas that are not actively being worked on, if left for 10 or more days. The ability to deploy standby BMP material is not sufficient for these areas. BMPs must be installed.
- ✓ Update your SWPPPs and have onsite and easily accessible.
- ✓ Upgrade and maintain slope protection for all disturbed slopes.
- ✓ Remove accumulated sediments from slopes and sediment control devices.
- ✓ Upgrade, repair and maintain perimeter and inlet protections;

- ✓ Upgrade, repair and maintain entrance/exits stabilization to prevent offsite sediment tracking; and
- ✓ Protect temporary soil stockpiles and/or remove.

Finally, as another reminder for those sites at which one (1) or more acres has been disturbed, as of March 1, 2003 you are required to obtain coverage under the State's General Construction Stormwater Permit. Information about the General Construction Stormwater Permit, including the NOI form, can be found on the State Water Resources Control Board website at <http://www.swrcb.ca.gov/stormwtr/constfaq.html> or by contacting the Regional Water Quality Control Board at (858) 467-2952.

The City appreciates your participation and compliance.

Respectfully,

Linda Isakson
Water Quality Protection Program Manager

cc: Robin Putnam, Community Development Department
Dave Wilson, Code Compliance Department

Appendix E-1
FY 05-06 Enforcement Case Database Summary

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-164 Type Private Lateral Location Address 717 W. California St	Private Lateral flowing - not to street. George Solano on scene. Chronic	Sewage discharging onto pavement from a cleanout cap. Sand bags protecting storm drain inlet. Vacuum truck support on site. Office Manager (Parrish Pelley) is off site. Site cell # is (760) 500-2258, e-mail ppelley@bergelectric.com. He called Drain Patrol before my arrival (before 2:00 pm) and they arrived at 3:35 pm - blockage cleared. Fax for Parrish at Berg Electric (760) 746-4619.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, repair/clear line. Provide camera inspection of sound lateral line. Educational material included HELP, Sewer Lateral Design and Fiber Roll Follow-up Actions Receive camera inspection record, form, and maintenance agreement Actions completed Reviewed VHS tape - questioned area 5 on diagram. Tony Tirado viewed tape and felt it was grease. I contacted George Solano. His camera crew verified city main has positive connection to private lateral.
Watershed Buena Vista Creek Call Date 9/1/2005 Case Closed 10/6/2005			
SW No. SW05-213 Type Private Lateral Location Address 1205 N. Santa Fe Ave #79	Sewage spill - blockage of private lateral	I spoke with Linda Glover, coach owner. There is a blockage, property owner notified and plumber called. ABS installed by coach owner and line was water tested with no leaks visible.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and repair line Follow-up Actions Run water test to verify no leaks. Actions completed Line repaired, no visible leaks. I spoke with Ben Shah, property owner. He has decided to video the line. I suggested a maintenance cleaning schedule for the park.
Watershed Buena Vista Creek Call Date 11/15/2005 Case Closed 11/17/2005			
SW No. SW05-221 Type Private Lateral Location Address 1011 Mullen Way	Private sewer line leaking into roadway.	I spoke with resident. Plumbers are on scene and unable to locate leak. I asked resident to use no water until leak could be repaired.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and repair line. Follow-up Actions verify corrective action. Actions completed 12/30/05 Phone message from property owner. Leak repaired by ASAP DRAIN guys. 1/2/06 I drove to site. Area dry.
Watershed Buena Vista Creek Call Date 12/29/2005 Case Closed 1/2/2006			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-018 Type Private Lateral Location Address 942 Eucalyptus Ave Watershed Buena Vista Creek Call Date 4/10/2006 Case Closed 4/10/2006	Private sewer lateral spilled into right-of-way 2nd time in one week.	Private lateral spilling into roadway. Wastewater on scene removing debris. I contacted property owner and ASAP Drain Guys were dispatched.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, camera lateral to determine blockage and repair line Follow-up Actions ASAP Drain Guys ran camera in line - root invasion. Roots cleared. Actions completed I watched the video of camera in the line and the repair by removal of roots.
SW No. SW06-020 Type Private Lateral Location Address 1751 Alta Vista Dr. Watershed Buena Vista Creek Call Date 4/11/2006 Case Closed 5/8/2006	Sewage leaching from private lateral into roadway on Peach Grove Ln. (in front of 1255 Peach Grove).	Cirillo Mariscal of Public Works called and requested that I go to 1255 Peach Grove Ln. as a sewer leak was noticed. Property owner uses water in the morning and it dries during the afternoon hours.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Video the private lateral to identify problem. Repair and then re-video lateral. Send video to Engineering for review & verification. Follow-up Actions 4/24/06, No corrective action, issued NOV. 5/2/06, Left NOV at residence. 5/3/06, received a call from property owner. She has contracted with a company to begin repairs. A portable toilet will be installed and BMP's placed to absorb any greywater from shower/basin discharge. Actions completed Job completed. New lateral installed and system functional. Spoke with contractor and property owner to verify completion.
SW No. SW06-022 Type Private Lateral Location Address 125 Kilby Ln Watershed Buena Vista Creek Call Date 4/19/2006 Case Closed 4/20/2006	Sewer Spill - Chronic	Clean-out cap had popped off, sewage was discharging into driveway, into storm drain inlet on private property and surfacing on east side of easement right-of-way and NCTD right-of-way. It had not reached S. Santa Fe Ave.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge. Repair line. Provide written verification from plumber that line is clear and functional. Follow-up Actions Verbal verification from property owner and tenant. Actions completed Property owner & tenant stated system was functional.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-032 Type Private Lateral Location Address 1205 N. Santa Fe Ave Watershed Buena Vista Creek Call Date 5/15/2006 Case Closed 5/16/2006	Sewage running out of coach pipes.	Sewer vent is off set and spilled and semi-dry material is on ground.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Dease discharge, repair connection. Follow-up Actions Photo verify Actions completed Repaired vent line.
SW No. SW05-136 Type Commercial Location Address Albertson's, 1301 E. Vista Way Watershed Buena Vista Creek Call Date 7/5/2005 Case Closed 7/14/2005	Power washing - not reclaiming water - Chronic	I contacted Omar Orendain, Management for Pacific Real Estate Services. He stated a new reclamation system will be implemented on Tuesday 7/12/05.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement code compliant water reclamation procedure. Follow-up Actions Visually verify compliance system Actions completed Omar followed behind employee and captured water with wet/dry vacuum. Omar is contracting with a company that reclaims water. Power wash schedule is: Tuesdays, Thursdays and Sundays 4:00
SW No. SW05-137 Type Commercial Location Address Chevron, 600 Hacienda Dr. Watershed Agua Hedionda Creek Call Date 7/6/2005 Case Closed 7/12/2005	High levels of detergents	I spoke with Tangee Agostini (on-site Manager for Chevron Station). She stated John Suckling is Manager for Carwash. I spoke with John regarding high detergent levels. He stated they do hand washing in that area. I requested he divert discharge to car wash clarifier or cease washing in that location. He stated he would cease discharge.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions Photo verify and request re-testing Actions completed Area clean

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-140 Type Commercial Location Address Filco Gas Station, 1244 N. Santa Fe Ave Watershed Buena Vista Creek Call Date 7/7/2005 Case Closed 7/8/2005	Water running for a week	I spoke with Jose (cashier) and he connected me with Russ Sako, owner of the business. Russ will ask employee to locate and shut off landscape controls. He has contacted his landscape company to locate problem.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions Verify water is not discharging Actions completed Area drier and not discharging water
SW No. SW05-144 Type Commercial Location Address BOJ, 611 Mercantile St Watershed Buena Vista Creek Call Date 7/8/2005 Case Closed 7/19/2005	Lack of BMP housekeeping throughout site.	Trash, debris, old lumber, kitchen appliances and auto parts littered throughout site. RV on site hooked up to building electrical.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove trash and other mentioned items Follow-up Actions Photo Verify - Contact and refer to Code Compliance. Actions completed Area clean, appliances, lumber and other debris removed.
SW No. SW05-143 Type Commercial Location Address Lowe's, 151 Vista Village Dr. Watershed Buena Vista Creek Call Date 7/11/2005 Case Closed 7/13/2005	Watering plants and not reclaiming discharge - Chronic	Alan Jensen, Garden Manager for Lowe's, waters two times daily allowing water to discharge to storm drain inlets. He was briefed on storm drain education a requested not to allow water to discharge into storm drain inlet.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions Intermittent inspection to verify compliance. Actions completed Reclaiming discharge. Observe intermittently

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-167 Type Commercial Location Address Kragen's, 1220 E. Vista Way Watershed Buena Vista Creek Call Date 7/16/2005 Case Closed 8/2/2005	Car wash not reclaiming water - Chronic	I spoke with onsite Manager. She was not working Saturday 7/16/05. I contacted Victory Outreach (ph# 433-1826) and left a message. Pastor Carlos Moreno returned the call and was informed of the requirement to reclaim water. I spoke with Lori Mills, Manager for Kragens, (ph# 639-0095) regarding the 7/23/05 car wash. She understands the necessity to reclaim water and will not allow Victory Outreach authorization to use site if they fail to capture water.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reclaim discharge water Follow-up Actions Clarify with Kragen's Manager Actions completed Kragen's will not allow car washes unless water is reclaimed. Left message with complainant.
SW No. SW05-146 Type Commercial Location Address Santa Fe Auto Repair, 1045 N. Santa Fe Ave. Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 7/27/2005	Lot is greasy, hazmat is inappropriately stored, overflowing trash	Business has leaking fluids, engine parts, batteries, trash & debris throughout lot.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Abate violation & implement BMP's Follow-up Actions Photo verify Actions completed BMP's implemented
SW No. SW05-151 Type Commercial Location Address Humberto's Auto Service, 444-B S. Santa Fe Ave Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 7/27/2005	Grease and fluids on pavement. Conduct maintenance on cars without coverage overhead. Repair asphalt in front parking lot.	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharges, implement BMP's Follow-up Actions Photo verify Actions completed BMP's implemented

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-148 Type Commercial Location Address Glitter Wash, 1140 S. Santa Fe Ave Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 8/1/2005	Water discharge from driveway to street.	Water is being discharged from wash bays to driveway and to street carrying with it heavy metals, tire brake dust and detergents.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and correct runoff by implementing BMP's Follow-up Actions Photo verify Actions completed Area dry - Gravel well was created at far driveway estension to collect any water. Site superintendent also continually monitors discharge to remove it before it can leave site.
SW No. SW05-150 Type Commercial Location Address Vista Car Care, 444- A S. Santa Fe Ave.	Grease and fluids on pavement. Conduct maintenance on cars without coverage overhead. Repair asphalt in fron parking lot.	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharges, implement BMP's Follow-up Actions Photo verify Actions completed BMP's implemented
SW No. SW05-152 Type Commercial Location Address El Rinconcito, 1033 S. Santa Fe Ave.	Secondary containment for grease recyclers, treat spills around grease drum, keep lids closed.	Confirmed complaint description. Property Manager: Griswold Real Estate Management (858) 597-6100, ext 325, 5703 Oberlin Dr., Suite 300, San Diego, CA 92121. Wade Walker, contact person.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Close dumpster lids. Provide secondary containment for oil recycle drums. Follow-up Actions 8/1/05, no corrective action - issue Citation # 0279 on 8/4/05. 8/23/05, New 55 callon drums were in place but no secondary containment. I gave Mr. Sanchez picture examples of secondary containments. He would order something. Actions completed Secondary containment in place. I spoke with Francisco Sanchez regarding removal of 2nd drum that was not in a secondary containment. He stated it would be removed in a month. I contacted Estella Muro (Code Compliance Office) and citation has not been paid.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-153 Type Commercial Location Address Rice King 12, 573 W. Vista Way Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 8/2/2005	Disposing oil/grease into dumpster. Lids open	Dumpster lin open. Mr. Hee puts grease into dumpster	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Provide secondary containment over cover for grease recycler. Close lids of dumpsters when not actively in use. Follow-up Actions Photo Verify Actions completed Letter from tenant stating he has contracted with grease service.
SW No. SW05-147 Type Commercial Location Address McDonald's, 1470 N. Santa Fe Ave. Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 7/19/2005	Minimize outdoor water discharge for degreasing, clean oil bin and drive-thru for grease discharge.	Area appeared recently washed within the dumpster grease recycler enclosure with milky fluids in a puddle outside the dumpster enclosure leading to the storm drain system.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and reclaim. Follow-up Actions Photo verify Actions completed I met with Gene Heaton, Manager. Overwatering is attributing to discharge. Any cleaning is mopped up and not discharged to storm drain inlets. Area clean and no grease visible.
SW No. SW05-149 Type Commercial Location Address Nicko's, 1004 S. Santa Fe Ave. Watershed Buena Vista Creek Call Date 7/18/2005 Case Closed 8/9/2005	No secondary container for oil bin, no overhead cover. Dumpster lids are up, food and grease are on lot areas, chronic, leaves not swept.	Confirmed complaint description. I spoke with Mr. Mellos regarding stormwater pollution prevention and provided examples of secondary containments and overhead covers and websites. Mr. Mellos felt the problem with the leaves was to be directed to the business next door (Alta Mira Animal Hospital). Mr. Mellos confronted Dr. Valerie Graben (Hospital Administrator & doctor - 726-8918) demanding she cut down her trees. Dr. Graben contacted me. The hospital site is well manicured and leaves are cleaned daily.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Provide secondary containment and overhead cover for grease bin. Sweep and maintain leaves. Keep lids closed. Remove food and grease from pavement. Follow-up Actions 7/25/05, No corrective action. 8/1/05, No corrective action - Citation written Actions completed Food removed, grease bin cleaned and area surrounding bin. Trash and leaves removed. Secondary containment and overhead coverage recommended but not required at this time. Monitored for maintenance and compliance of grease bin.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-169 Type Commercial Location Address HMS CO., 1400 Palomar PI Watershed Buena Vista Creek Call Date 7/19/2005 Case Closed 8/4/2005	Miscellaneous trash and debris throughout site.	I spoke with Bruce Smith. Three of his five workers had been in a car accident and clean-up was compromised. He knows the grounds require BMP implementation. Some sediment is discharging from driveway at 1400 Palomar Place loading dock site. Miscellaneous agricultural materials require organization and removal.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Service site, removal of old materials, sweep up sediment, keep lids closed on dumpster(s). Follow-up Actions Photo Verify Actions completed Area much improved. BMP's implemented.
SW No. SW05-168 Type Commercial Location Address Esperanza Growers, 1455 E. Taylor Watershed Buena Vista Creek Call Date 7/19/2005 Case Closed 8/25/2005	Sediment discharge	Sediment discharging off property. Gas line exploded in May, has to be repaired. Richard Hildebrand (RH) met me on site. He explained it was a dirt road and City laid asphalt, covering up a 6" corrugated metal pipe inlet that went under the road (south to north side) into a drainage culvert that has congested vegetation and blocks runoff causing flooding onto 1454 E. Taylor St. I spoke with Mr. Lawhead at 1454 E. Taylor. He stated the City owns the frontage on the property. I met with Dennis Dudek and Rudy Luna. They were not aware of the 6" corrugated metal pipe inlet on south side, under roadway to north drainage culvert. Mr. Lawhead and RH feel the culvert should be cleaned and the corrugated metal pipe inlet/outlet located. Richard Caldwell provided parcel maps (PM 235 & PM 1707) which indicate City owns congested brow ditch. 8/8/05, discussed situation with Linda Isakson and she will contact Sudi Shoja regarding the ditch clean out. 8/9/05, I contacted Mr. Hildebrand to provide status.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clean roadway and implement BMP's to prevent runoff. Follow-up Actions Photo verify Actions completed Area cleaned. Gas line repaired.
SW No. SW05-171 Type Commercial Location Address Ted's Auto Shop, 727 E. Vista Way Watershed Buena Vista Creek Call Date 7/20/2005 Case Closed 8/16/2005	General BMP's, failure to maintain good housekeeping	Two vehicles were being worked on with aid of overhead cover. Engine was on pavement. Buckets are being stored on top of tool shed at rear of property. Grease and oil accumulation throughout site. 7/25/05 issued citation # 840 for \$100.00.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Maintain good housekeeping, remove buckets, cease working on cars without a cover and obtain 2nd containment for fluid recycling drums. Follow-up Actions Photo verify Actions completed Area has improved. Tenant ordering 2nd containment and will have area power washed.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-174 Type Commercial Location Address Green Oak Ranch, 1237 Green Oak Rd Watershed Agua Hedionda Creek Call Date 7/20/2005 Case Closed 7/22/2005	Large volume of water flowed through creek.	Area was not flowing and pools were intermittent in creek bed. Pooled water was clear. I contacted Mr. Fielstra who explained event. (See watershed county e-mail 7/20/05, 8:17am). I contacted Mark Davis @ VID operations, who directed me to Joe Weegand at County Operation Center (480-5534). Left message with Mr. Fielstra regarding some information from Joe.	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Request that County notify City of Vista when releasing large volumes of water. Follow-up Actions None required Actions completed None required
SW No. SW05-172 Type Commercial Location Address New Panda Buffet, 1040 E. Vista Way Watershed Buena Vista Creek Call Date 7/20/2005 Case Closed 8/9/2005	No secondary containment , grease spills	Confirmed complaint description, dumpster lids open, trash on ground. 8/4/05, Kristy, of New Panda Buffet, called and was in receipt of NOV.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clean up grease spills, close lids and implement secondary containment on oil drums. Follow-up Actions Photo verify Actions completed Grease drums were removed and kept under cover. Lids down. Area was cleaned of grease spills.
SW No. SW05-173 Type Commercial Location Address Goodwill, 820 Escondido Ave. Watershed Buena Vista Creek Call Date 7/21/2005 Case Closed 8/3/2005	Overflowing trash from dumpsters . Chronic	Numerous dumpsters are overflowing, leaking and trash is strewn throughout the alley on the east side of the building. 7/21/05 I spoke with Michael Goldman regarding dumpster condition. He suggested calling Capitol Growth Properties (858) 454-8857. Stacy Coburn is site manager for the location's common areas. Stacy suggested I contact Rayann Brewer of S & R Property Management at (760) 967-1690 who takes care of tenants from "Rent Time" over to strip on north side (Curves Etc). David Hansen of "Keeping Up Appearances" (contractors for Capitol Growth Properties) cell (858) 518-4126, contacted me regarding removal of leaves/trash in storm drain inlets on property.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, remove trash, debris and close lids on dumpsters. Follow-up Actions Photo verify Actions completed Area clear of debris and trash. Storm drain inlets cleaned.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-154 Type Commercial Location Address Applied Control, 1209 Activity Dr. Watershed Agua Hedionda Creek Call Date 7/21/2005 Case Closed 7/25/2005	No secondary containment/no cover on dumpster and outdoor pallets - no cover	Site looked much improved from initial D-Max inspection of 6/22/05	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cover dumpster and pallets. Follow-up Actions Observe intermittently Actions completed Observe Intermittently
SW No. SW05-155 Type Commercial Location Address CNC Dynamics, 1209 Activity Dr Watershed Agua Hedionda Creek Call Date 7/21/2005 Case Closed 7/25/2005	Waste recycling - no secondary containment or cover	Site looked much improved from initial D-Max inspection on 6/22/05.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cover dumpster Follow-up Actions Observe intermittently Actions completed Observe intermittently
SW No. SW05-156 Type Commercial Location Address Cal-Americas, 2834 LaMirada Dr. Watershed Agua Hedionda Creek Call Date 7/21/2005 Case Closed 7/25/2005	Water leaving site, dumpsters not closed.	Confirmed Complaint Description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge. Keep lids closed unless actively in use. Follow-up Actions Observe intermittently Actions completed Observe intermittently

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-166 Type Commercial Location Address Taco Pablo's, 530 Hacienda Dr. Watershed Buena Vista Creek Call Date 8/3/2005 Case Closed 8/5/2005	Trash enclosure maintenance and parking stall oil spills	I sent a letter to property management (Pacific Asset Management) requesting proper BMP implementation. - - Lori Reynolds, P. O. Box 19068, Irvine, CA 92623	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement general BMP's. (Was given Commercial/Industrial BMP educational material) Follow-up Actions Observe intermittently Actions completed Observe intermittently
SW No. SW05-157 Type Commercial Location Address 414-428 N. Santa Fe Ave Watershed Buena Vista Creek Call Date 8/3/2005 Case Closed 8/23/2005	No secondary containment, oil stains on pavement.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Provide secondary containment, clean storm drain, clean oil stains, clean spills. Follow-up Actions photo verify Actions completed Area cleaned and secondary containment ordered.
SW No. SW05-165 Type Commercial Location Address Mi Tiendita Market, 700 Townsite Dr Watershed Buena Vista Creek Call Date 8/4/2005 Case Closed 8/4/2005	Lack of BMP's at trash enclosures and perimeter	Confirmed complaint description. I sent a letter to property owner/property manager requesting BMP implementation.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement general BMP's at site Follow-up Actions Observe Intermittently Actions completed BMPs in place

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-170 Type Commercial Location Address Allen's Auto , 718 E> Vista Way Watershed Buena Vista Creek Call Date 8/9/2005 Case Closed 8/9/2005	Cover metal and spare parts, close dumpster lids, work on vehicles under a cover and improve slope boundaries.	Confirmed complaint description. This includes grease accumulation and general lack of BMP's throughout site.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Implement corrective BMP's Follow-up Actions Photo verify Actions completed Corrective action verified.
SW No. SW05-158 Type Commercial Location Address Dos Gringos, 3260 Corporate View Dr.	Discharge of pollutants	Floral water and fluids dripping out of 40 yard dumpster and delivery trucks spilling water buckets and discharging into storm drain inlet.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement BMP's Follow-up Actions 8/15/05, Trudi Steele, 477-7999 ext. 303, contacted me to state their intentions to implement BMP's. Actions completed Spill Prevention Plan letter received from Trudi Steele
SW No. SW05-179 Type Commercial Location Address 995 Postal Way	Chronic overwatering	Landscape watering system appears to be leaking. Water chronically crosses sidewalk into curb/gutter and storm drain system. I have talked with Dennis Dudek at Public Works regarding cleaning curb/gutter also.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge - repair landscape system Follow-up Actions Photo verify 8/24/05 No corrective action - issue NOV, 8/29/05 Mr. Peter Pozzuoli came to Engineering Dept and we discussed requirements. He requested additional time to repair and clean area. 9/2/05, slime cleaned off sidewalk - Public Work's cleaned street. 9/8/05, Water line not repaired - trapping trash and debris on sidewalk again. I left a message with Mr. Pozzuoli to provide me with status. 9/13/05, No corrective action on repairing water leak. Trash collecting at discharge on sidewalk and into curb/outter. I contacted Mr. Pozzuoli. Landscaper was greeted with a swarm of bees. Actions completed 9/20/05, Area dry. I contacted Mr. Pozzuoli. He stated a gasket would not close on a sprinkler head. It was repaired. NOV corrective action verified, was signed and copy sent to property owner

GENERAL		COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP	
SW No. SW05-182 Type Commercial Location Address 1010 S. Santa Fe Ave		BMP failure throughout site.	Dead vegetation, trash and debris throughout site discharging into storm drain system. I contacted Mark Vieron (Fire Dept, ext 2047) to clarify if a fire hazard existed. He stated homes above were far enough away to pose a hazard with Workout Centers dry vegetation.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and remove pollutant and maintain.	
Watershed Buena Vista Creek Call Date 8/29/2005 Case Closed 9/26/2005				Follow-up Actions 9/21/05, received message from Dave Garfinkel, San Diego Workout, requesting extension. I returned call granting extension. Person taking my response refused to give name and told me I didn't need to know his name and hung up on me. Actions completed Corrective action verified. Photo evidence. Area cleared of dead vegetation trash and debris. I e-mailed Judy Ritter regarding corrective action.	
SW No. SW05-163 Type Commercial Location Address Junior's Taco Shop, 1680 S. Melrose Dr. #110 Watershed Agua Hedionda Creek Call Date 9/13/2005 Case Closed 10/5/2005		Failure to implement BMP's	Lids up on trash bin, no secondary containment for 55 gallon drum and lid not secure.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement appropriate BMP's. Install secondary containment and cover for 55 gallon drum and keep trash bin lids closed. Follow-up Actions Junior's Taco Shop to provide proof of grease recycle collection other than at 55 gallon drum in dumpster. Actions completed Received copy of grease pick-up receipts. Case deferred to 1688 S. Melrose SW05-162 as Wasabi Restaurant uses 55 gallon drum.	
SW No. SW05-162 Type Commercial Location Address Wasabi Restaurant, 1688 S. Melrose Dr. Watershed Agua Hedionda Creek Call Date 9/13/2005 Case Closed 10/11/2005		Failure to implement BMP's	Lids on trash bin are up, no second containment on 55 gallon grease drum and lid not secure. 10/5/05 No corrective action. Contacted Tiffany, she has a greater understanding of second containment & cover. She contacted North County Grease, they do not have secondary containments. She decided to move indoors.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement appropriate BMP's. Install secondary containment & cover for 55 gallon drum and keep trash bin lids closed. Follow-up Actions Photo verify Actions completed Grease drum removed - storing grease indoors in original containers. Contacted Tiffany @ restaurant to confirm I have seen and verified corrective action.	

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-196 Type Commercial Location Address 1590 S. Melrose Dr. Watershed Agua Hedionda Creek Call Date 10/12/2005 Case Closed 10/20/2005	Water discharge - unknown origin	Pipe break. Employee unable to contact Management. Water break occurred at 3:00 a.m. VID (Vista Irrigation District) came to shut off meter as I could not locate break and Management had not responded. VID on scene at 8:40 a.m.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and repair break immediately. Long term: provide spill prevention policy to water quality prevention program. Follow-up Actions Provide verification of policy/procedure for spill response. Actions completed I spoke with Steve Davis, property owner. He stated the store has phone numbers to reach Sandy Chantler (Alliance Management Corp.), 24-7, and plumber is contacted by Sandy.
SW No. SW05-199 Type Commercial Location Address 348 N. Santa Fe Ave Watershed Buena Vista Creek Call Date 10/19/2005 Case Closed 10/26/2005	Illicit connection to storm channel	Public Work's, contacted me to say a white pipe was directed to storm drain channel near Pauley Equipment Rental. I spoke with David Pauley who stated the pipe carries away water from equipment yard. Mud was accumulating in grate area under an equipment trailer. The water discharges across parking lot and equipment yard and into storm drain channel.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement appropriate BMP's to prevent yard pollutants from entering storm drain channel. Follow-up Actions 10/26/05 & 10/27/05, Area cleaner. Discussed solutions with Jacob Pauley. Would like filter suggestions for large inlet pipe that funs off to City dirt easement near storm drain channel. Actions completed I spoke with Linda Isakson. Area runoff to dirt easement behind business is acceptable. No direct runoff to channel allowed. Filter system in inlet recommended.
SW No. SW05-204 Type Commercial Location Address 1132 N. Melrose Dr. Watershed Buena Vista Creek Call Date 10/20/2005 Case Closed 11/8/2005	Washing off engine into ribbon gutter and into NCTD right-of-way.	Overwatering of site. Spoke with Tracy King of North Coast Church. I spoke with Tracy Rossello at Rob's Auto Repair. They are knowledgeable and practice BMP implementation and pollution prevention. I spoke with Jeremiah and Jared at RK Iron Works. Their hose bibb is located behind metal racks and not accessible. They do not wash off anything.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease overwatering. Remove trash and debris near NCTD area and right-of-way gutters leading from site. Follow-up Actions Verify compliance. Actions completed Area dry - Landscape over-watering corrected. Washing off engine unable to substantiate.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-202 Type Commercial Location Address 1800 University Dr. (Wal-Mart) Watershed Agua Hedionda Creek Call Date 10/24/2005 Case Closed 11/2/2005	Power washing and not reclaiming discharge. Chronic	I contacted George Lucia, Fire Dept. Investigator. He is researching possible infraction. Referred "no business license" to Code after verifying with Baiba Murneks in Business License Dept. Letter sent to business owner, Mr. Lamora, with informational brochures. Also, letters to Wal-Mart and Big Lots Corporate Offices.	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and reclaim water Follow-up Actions Observe Intermittently Actions completed Reclaiming discharge. Observe Intermittently
SW No. SW05-201 Type Commercial Location Address 822 E. Vista Way Watershed Buena Vista Creek Call Date 10/26/2005 Case Closed 11/21/2005	Washing lot and not reclaiming.	Employee was washing off parking lot and asphalt and not reclaiming water. Area was still wet upon my arrival. I spoke with the Service Counter employees and gave them a NOV to forward to business owner. No secondary container or cover on grease drums. Grate at storm drain inlet had been pryed open. Complainant stated employee was forcing debris, with hose, through opening in grate. Grate leads to curb/street. 10/31/05, Frank Durazo spoke with business owner (in Spanish). Frank will meet them on site tomorrow to explain visually.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement secondary containment with cover. Reclaim any water used for cleaning exterior. Follow-up Actions Photo verify Actions completed Secondary containment in place. Photo verified. **Also owns Sunrise Café.
SW No. SW05-203 Type Commercial Location Address 823 N. Santa Fe Watershed Buena Vista Creek Call Date 10/28/2005 Case Closed 11/2/2005	Laundry discharging grey water	Confirmed complaint description - entered storm drain. Wastewater crew called out to vacuum off site and then wash down area. Pacific Drain cleared line on arrival @ 10:45 a.m.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement a regular maintenance schedule. Follow-up Actions Obtain maintenance schedule. Actions completed Maintenance will be performed quarterly by Pacific Drain.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-205 Type Commercial Location Address 1688 S. Melrose Dr. Watershed Agua Hedionda Creek Call Date 10/29/2005 Case Closed 11/2/2005	Grease spill into right-of-way.	Grease spilled onto roadway causing a slippery condition. Sheriff's closed area while Fire Dept. and P.W.'s Dept. removed hazard. I spoke with Wasabi and Jr's Taco, both have grease returned to original container and removed by recycle. I spoke with Lee Alhanoush of 'Kabab Cuisine' Greek Restaurant. He just opened a newly remodeled business, cleaned his grease fryer and wanted to know where to put discharge. I suggested he contact other restaurants. I asked where he poured the "greasy water". "Down the sink, I have a grease interceptor and it's cleaned two times a month". I gave him educational brochures and other grease storage suggestion. I contacted Property Managers, Jason Dick of Stepstone Realty, via e-mail and apprised him of the event.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and dispose of oil with recycle company. Remove 3 greasy buckets from rear walk way and clean walk way with dry method. Follow-up Actions Observe intermittently Actions completed Area clean. Observe intermittently
SW No. SW05-214 Type Commercial Location Address 530 Hacienda Dr. #104 Watershed Agua Hedionda Creek Call Date 11/16/2005 Case Closed 12/20/2005	Open grease recyclers, grease spills, trash at south side of restaurant.	Confirmed complaint description. I spoke with business owner, Hu Daqing. He did not know his property manager information or who was responsible for grease recycler. He stated he did use grease recycle units but thought property manager took care of cleanup and recycling of oil.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease dishcharge, provide secondary containment for grease recyclers with overhead coverage and remove trash and debris next to building. Asked that they provide name, phone number and schedule of recycle company. Follow-up Actions Photo verify Actions completed Area clean. Overhead cover is a 3/4" plywood braced by two walls of grease enclosure. No 2nd containment. Will monitor and require if area is not maintained.
SW No. SW05-220 Type Commercial Location Address 1350 E. Vista Way, Suites 8 & 9 Watershed Buena Vista Creek Call Date 12/28/2005 Case Closed 12/29/2005	White substance washed into alley.	White grout washed out by tenant remodeling.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove grout throughout alleyway. Reclaim any power washing water. Follow-up Actions Verify clean-up Actions completed Area clean of any grout. Photo verified. Signed tenants NOV on site.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-002 Type Commercial Location Address 2241 Hawley Watershed Buena Vista Creek Call Date 1/4/2006 Case Closed 3/3/2006	Sediment tracking off property and apartments, tenants parking on vacant lot.	I was able to locate property owner and will meet with him on site to discuss BMP options. 1/12/06, 5:06 p.m., left message. 1/16/06, Property owner had a family emergency and needed to fly to Iran - would return in 10 days. Discussed this with Linda Isakson. Issue NOV in 10 days. 1/31/06, Left message to contact me by noon. 2/1/06, Send out NOV.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, remove sediment in roadway and implement BMP's to prevent future discharge. Follow-up Actions 2/6/06, No corrective action. 2/16/06, mailed NOV by regular and certified mail. 2/27/06, Received call property owner - He stated people on either side are the sediment dischargers. Further investigation proves most sediment is from flower stand areas. E-mailed all to fix by 3/15/06. Actions completed 3/17/06 More gravel was to be implemented.
SW No. SW06-003 Type Commercial Location Address 941 E. Vista Way Watershed Buena Vista Creek Call Date 1/9/2006 Case Closed 1/19/2006	Power washing - no reclamation of discharge.	I contacted Orphir Management and spoke with Allison. She forwarded me to Victor Martinez's number and I left a message. I mailed Power Wash brochure to the Company with verbal warning letter.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge or reclaim Follow-up Actions None required Actions completed N/A
SW No. SW06-013 Type Commercial Location Address 1455 W. Vista Way Watershed Buena Vista Creek Call Date 1/10/2006 Case Closed 3/1/2006	Excessive algae and water	Excessive water and algae on sidewalk and roadway in front of this business (Tri-City Carpets). I discussed this with Linda Isakson and she, in turn, will discuss it with Sudi Shoja and Public Works. I contacted Daniel Lavine to reduce any over watering of landscaping in the area, also, see e-mail to Linda Isakson of 2/14/06 at 5:23 p.m. I requested that Public Works clean and maintain sidewalk.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge. Monitor for overwatering from businesses. Remove algae covering sidewalk. Follow-up Actions Photo verify Actions completed Algae removed. Area is dryer. Site has been referred to Public Works for maintenance.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-008 Type Commercial Location Address 846 Williamston St. Watershed Buena Vista Creek Call Date 1/16/2006 Case Closed 3/1/2006	Sediment discharge	Confirmed complaint description. I left a message with Facility Managers, Tim & Kevin stating that I would meet with them on site. 1/25/06, no response, left 2nd message.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement BMP's, remove and maintain dirt, etc., from perimeter area. Follow-up Actions Verify that corrections are made Actions completed Area clean with BMP's implemented. Monitor for effectiveness.
SW No. SW06-007 Type Commercial Location Address 1000 Vale Terrace Watershed Buena Vista Creek Call Date 1/16/2006 Case Closed 3/3/2006	Sediment discharge	Confirmed complaint description . I left a message with Facility Managers, Tim & Kevin, that I would meet with them on site. 1/25/06 No response, left 2nd message. Could not locate Facility Mgr. on site. 1/26/06, Tim returned call and stated I needed to speak with Kevin.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement BMP's, remove and maintain dirt, etc. from perimeter area. Follow-up Actions Verify corrections are made Actions completed Area clean with BMP's implemented. Monitor for effectiveness.
SW No. SW06-005 Type Commercial Location Address 151 Vista Village Dr., Lowe's Watershed Buena Vista Creek Call Date 1/20/2006 Case Closed 4/17/2006	Watering plants at Garden Center and discharging to storm drain at Lado de Loma	I spoke with Tim Jones, Store Manager. I gave him a Commercial/Industrial BMP brochure and suggested watering alternatives. I spoke with Kip Kaiser who would be contacting his Manager.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge unless reclaiming water. Provide written spill prevention plan to Engineering Dept. Follow-up Actions Verify receipt of spill prevention plan letter. 2/6/06 No letter - message to Kip Kaiser. 3/1/06, No letter - message to Kip Kaiser. Received a call from Ken Bryan - he will provide spill prevention letter for site. Actions completed Early April, Lowe's installed Nexus water tables throughout store. Area will be monitored for continuing compliance. I re-contacted Tim Jones, with recent photos, and we spoke with all Garden Center employees.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-031 Type Commercial Location Address 912 Postal Way Watershed Buena Vista Creek Call Date 3/7/2006 Case Closed 6/6/2006	Auto fluids leaking and no second containment.	Confirmed complaint category .	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, remove oil/grease and implement second containment on drums. Follow-up Actions Photo verify Actions completed Corrective action verified.
SW No. SW06-047 Type Commercial Location Address 1097 Crestview Rd Watershed Agua Hedionda Creek Call Date 3/14/2006 Case Closed 4/14/2006	Lack of site maintenance as noted during annual stormwater compliance inspection.	Trash, debris, dead vegetation, trash lids off, lack of BMP's to prevent erosion and no second container on port-a-potty.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove trash debris, dead vegetation. Implement BMP's to prevent erosion of soil from vehicular traffic. Install secondary containment on port-a-potty, level and secure. Keep lids closed. Provide cover for equipment. Follow-up Actions Photo verify Actions completed Area fully implemented with BMP's
SW No. SW06-050 Type Commercial Location Address 2015 Foothill Dr. Watershed Buena Vista Creek Call Date 3/16/2006 Case Closed 4/28/2006	Excessive accumulation of trash and debris, old appliances, bikes, etc..	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove acculation of trash and debris Follow-up Actions Photo verify Actions completed Area cleared of much trash and debris

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-052 Type Commercial Location Address 1455 E. Taylor St.	Accumulation of trash, debris, spoils such as old appliances, etc. throughout site.	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clean and maintain area Follow-up Actions 4/28/06, No corrective action. 5/2/06, Certified Mail returned. Attempted contact via phone, disconnected. 5/4/06, hand delivered certified mail to 1455 E. Taylor. 5/10/06, received call from Dick Hildebrand. Got his new number. He has completed some of the requirements and requested another month as he is sole proprietor. 6/7/06, drove by on 6/5/06 and some clean-up was done but much more is still needed. I contacted Dick Hildebrand requesting an update. No Response. 6/14/06, Contacted Dick and he will begin on lower "Big Door" area next week. Once area is cleared, close case on good Actions completed I spoke with property owner; some corrections have been made. He is working consistently to clear one area then proceed to the next. I told him I would monitor his progress.
Watershed Buena Vista Creek Call Date 3/16/2006 Case Closed 7/18/2006			
SW No. SW06-048 Type Commercial Location Address 1712 Anza Ave	Site has accumulated trash debris and lack of BMP's.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove accumulated trash & debris. Implement appropriate BMP's. Follow-up Actions 4/28/06, No corrective action. Requested Imelda Valdivia of Development Services Dept. to translate for Spanish speaking tenant, Calixto Martine. Gave a week extension to comply or citation begins. 5/17/06, No corrective action. Requested Imelda to inquire with comprehension of requirements. They understood but have been very busy with growers. Also, stated dumpsters were on site for cleanup. 5/26/06, no corrective action. It rained and mud is tracking off site. Again, Imelda called and spoke with property owner. Four dumpsters are now being filled. Gravel will be installed at the entrance. Actions completed On good faith, much has been done and in understanding that this is an annual inspection, Torres Growers will continually work toward compliance. Perimeter is protected.
Watershed Buena Vista Creek Call Date 3/16/2006 Case Closed 6/6/2006			
SW No. SW06-051 Type Commercial Location Address 1640 Bonair Rd	Accumulated trash and debris - lack of BMP's	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove trash and debris, implement BMP's Follow-up Actions Photo verify Actions completed Area cleaner, BMP's implemented.
Watershed Buena Vista Creek Call Date 3/16/2006 Case Closed 4/28/2006			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-049 Type Commercial Location Address 1409 Arcadia Ave Watershed Buena Vista Creek Call Date 3/16/2006 Case Closed 4/28/2006	No secondary container under port-a-potty's, miscellaneous trash/debris	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement secondary container under port-a-potty's, remove trash and debris. Follow-up Actions Photo Verify Actions completed Area cleared of trash and debris and second containers are under portable toilets.
SW No. SW06-026 Type Commercial Location Address 160 Sycamore Ave., A & B Watershed Agua Hedionda Creek Call Date 3/30/2006 Case Closed 5/8/2006	Power washer not reclaiming discharge water. Contractor State License # 20645 possibly fictitious. No Business License either. Checked with State Board for listing on 4/26/06...no listing.	I received a call regarding power washer not reclaiming water at Big Lots, 760 Sycamore Ave. I contacted Tom DeForrest, Manager of Big Lots, (760) 598-3674, who provided me with the invoice from the power washer, R. L. Steamworks. I also obtained Corporate Office phone number for Big Lots. Susan Gibson (sgibson@biglots.com), 1-800-1253 ext 7138, Senior Property Coordinator, Big Lots #4267, 760-A Sycamore Ave., Vista, CA 92083. April Harvey, ext. 6277, Property Manager. Vicki Cauter, ext. 6812, Sr. Property Manager. 5/9/06, I spoke with Susan Gibson, she connected me to Rick LaMora and he clarified reclamation. He washes both Big Lots on the 3rd Tuesday each month and Wal-Mart (Univeristy Dr.) every Monday evening between 10:00 and 11:00 p.m. I told Rick to obtain a Business License. I e-mailed Jeanette Farris in the Finance Dept. regarding status.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Cease further discharge to storm drain inlet, protect storm drain inlets and reclaim all discharge water. Follow-up Actions Observe intermittently Actions completed Discharge water is being reclaimed.
SW No. SW06-023 Type Commercial Location Address 440 Olive Ave Watershed Buena Vista Creek Call Date 4/19/2006 Case Closed 4/19/2006	Excessive water runoff	Business is washing vehicles creating runoff to float valve basin at front of building. The float trips, causing discharge to roadway. I contacted Mr. Giesler, property owner, and met at the site to assess problem at the business and make corrections.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and adhere to BMP requirements. Follow-up Actions Intermittent monitoring Actions completed Intermittent monitoring

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-024 Type Commercial Location Address 651 Eucalyptus Ave. Watershed Buena Vista Creek Call Date 4/22/2006 Case Closed 5/3/2006	White paint washed into storm drain via utility sink in pre-school yard.	Chris Dzwalski, from Public Works, investigated original complaint. This was forwarded to Craig Trammell at Public Works. I visited site and traced the white paint to a curb outlet at 651 Eucalyptus Ave, the pre-school. An outdoor sink in the pre-school yard is plumbed to storm drain. I ran water into sink and water exited the curb core where the white paint was visible. I took photos outside and went into pre-school gate and took photos of the sink. The Assistant Director asked me what I was doing. I identified myself (gave her my card and was wearing the yellow vest with the City logo also). She sternly told me I could not take pictures of the children. I told her I was here on a complaint regarding discharge from a sink. "This is private property and you can't take pictures. We could be sued!". I raised my camera to have us both view the picture of the sink, while I stated I would take another picture if there were children in the original picture. A clown standing behind the Assistant Director chimed in and both stated it was private property at which time the Assistant Director began flailing her arm and began pushing me. (She held a child in her left arm). I stated to "stop pushing me" and that two other women I talked with did not tell me photos were not allowed. I asked for the Director (who was at lunch). I asked for the Directors name and exited the gate. The clown followed me out wanting to see "where this white paint is". I walked to the curb, showed her and metioned again "She (Asst. Dir.,Name unknown) shouldn't be pushing anyone like that". The clown responded "I know". I returned to City Hall and began report.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge & obtain permit or remove sink as this is an illicit connection Follow-up Actions Photo verification. 5/1/06, I contacted Kay, Office Secretary, and asked the status. She was unaware a permit was required and of compliance date. I suggested she contact the Junior Warden to call me for assistance. Actions completed Visual verification. Sink removed.
SW No. SW06-033 Type Commercial Location Address 1960 Hacienda Dr Watershed Buena Vista Creek Call Date 5/12/2006 Case Closed 5/12/2006	Require new oil drum, no secondary containment, no overhead cover, grease spills and dumpster lid open.	New oil recycler has been installed, dumpster lid was closed.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Install new oil recycler, keep dumpster lid closed. Clean area Follow-up Actions Intermittent monitoring Actions completed New oil recycler has been installed, dumpster lid was closed. Area clean

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-036 Type Commercial Location Address 901 W. Vista Way Watershed Buena Vista Creek Call Date 5/12/2006 Case Closed 6/16/2006	Sediment discharge into right-of-way and boat washing discharge into creek.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement BMP's. Follow-up Actions Linda Isakson, Stormwater Manager, visited site and talked with business owner. It was determined sediment in front of AA Marine is originating from properties above. Boat washing water stays on property. Actions completed Refer to Case # SW06-054 for related addresses and further disposition of sediment issue.
SW No. SW06-034 Type Commercial Location Address 35 Main St #110 (Steak Escape) Watershed Buena Vista Creek Call Date 5/12/2006 Case Closed 7/25/2006	No secondary containment, no overhead cover on grease recycler and trash lids are not closed.	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, close dumpster lids, implement secondary containment and overhead coverage Follow-up Actions 6/6/06, No corrective action. 6/7/06, Phoned and e-mailed Steve Hargrave, property manager. He made personal visit on 6/12/06 and strongly advised tenant to comply with City or eviction will begin. 6/22/06, No corrective action - issue citation. Actions completed 7/24/06, Andy stated he would be storing his grease in original containers and have North County Grease as a recycle company.
SW No. SW06-035 Type Commercial Location Address 35 Main St. #100 Watershed Buena Vista Creek Call Date 5/12/2006 Case Closed 8/28/2006	No secondary containment or overhead cover on grease recycler. Trash lids not closed.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, close dumpster lids, implement second containment and overhead coverage. Follow-up Actions 6/6/06, No corrective action. 6/7/06, phoned and e-miled Steve Hargrave, Property Manager. He made a personal visit on 6/12/06 and strongly advised the tenant ot comply with the City or eviction will begin. 6/22/06, I contacted Steve Hargrave, Property Manager, and notified him on the no corrective action and informed him that a citation was issued. 7/7/06, No corrective action. Issued the second citation. 8/1/06, No corrective action. Again, called Steve Hargrave. He has ordered secondary containment and overhead cover and will call North Countv Grease Service. 8/7/06. Grease recvcler Actions completed BMP's implemented. Yellow Roll Top secondary containment, overhead coverage and area powerwashed.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-042 Type Commercial Location Address 770 Sycamore Ave #F Watershed Agua Hedionda Creek Call Date 5/23/2006 Case Closed 6/8/2006	Grease drum, no secondary containment and oil spills. Lids on dumpster are open.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement secondary containment, remove grease spills and keep dumpster lids closed. Follow-up Actions Photo verify. 6/6/06, John Huynh contacted me to say he ordered spill containment and it is to arrive 6/8/06. Actions completed Secondary containment and coverage for grease recycler has been implemented.
SW No. SW06-040 Type Commercial Location Address 1110 Sycamore Ave Watershed Agua Hedionda Creek Call Date 5/23/2006 Case Closed 6/9/2006	No secondary containment and no overhead coverage on tallow bin, trash strewn throughout enclosure and grease spills.	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's, secondary containment with overhead coverage, keep lids down on trash bins and remove grease spills. Follow-up Actions Photo verify Actions completed Area has been steamed but no overhead coverage. Good faith effort was made and closed case with qualifying statement requiring refinement if grease is not contained.
SW No. SW06-041 Type Commercial Location Address 770 Sycamore Ave #L Watershed Agua Hedionda Creek Call Date 5/23/2006 Case Closed 6/9/2006	No secondary containment on two 55 gal. drums, no overhead coverage.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement secondary containments and overhead coverage. Follow-up Actions Photo verify. Actions completed Secondary containment installed with 2 grease recyclers. No overhead coverage. Closed case with qualifying statement. Location will be monitored. Any pollution, overhead coverage will be required.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-043 Type Commercial Location Address 1175 Park Center Dr. Watershed Agua Hedionda Creek Call Date 5/23/2006 Case Closed 8/31/2006	Improper Storage of waste and grease	No secondary containment on two 55 gal. grease drums. Grease spilled onto pavement. Trash lids open.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement secondary containment and overhead coverage and keep lids closed Follow-up Actions Photo verify. 6/8/06, sign on front door- Closed due to fire. 6/9/06, I contacted neighboring unit (Ted Deaguero 760-402-2995). He will extend my request for contact from Café Oasis as he is a friend and will see business owner. 6/14/06, Left message at business phone number. 7/5/06, Contacted Ted Deaguero (neighboring business). He stated Bill Faraimo is aware of the letter sent on 5/24/06 and that contractors are rebuilding business. I requested, again, that Bill contact me. Certified letter returned on 7/3/06 as unclaimed. 8/2/06. Voice message with Café Oasis states "still being repaired from fire Actions completed 8/31/06, Paid visit to location. Business is still not opened and won't be for many more months. I have received no response from business owner. Grease drums are secure and not in use. I am closing case and will readdress when restaurant is opened or at next annual inspection.
SW No. SW06-046 Type Commercial Location Address 519 S. Santa Fe Ave.	Hosing off perimeter and not capturing discharge.	confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions Intermittent inspections Actions completed Intermittent inspections
SW No. SW06-065 Type Commercial Location Address 1280 E. Vista Way, Suite #1 Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 8/10/2006	No secondary containment and no overhead coverage	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Provide secondary containment and overhead coverage. Follow-up Actions Photo verify. 7/20/06, No corrective action. Spoke with Donna at restaurant, owner will call. I spoke with Emilio and suggested old grease be stored in original jugs. He will talk to grease recycler to remove drum. 8/8/06, Spoke with Donna and left message. No corrective action. 8/7/06, Emilio called to say that the grease drum is removed. Actions completed Area cleared of grease drum, photo verified.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-062 Type Commercial Location Address 868 E. Vista Way Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/20/2006	Lack of good housekeeping through site.	Washing pavement not capturing discharge. Sediment discharge from landscape. Trash lid up, floormats washed outside, no secondary containment or overhead coverage for oil drum, trash and clutter.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharges and implement BMP's Follow-up Actions Photo Verify Actions completed 7/20/06 Secondary container in place - Lids on but no overhead coverage, area much cleaner.
SW No. SW06-061 Type Commercial Location Address 1740 E. Vista Way Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/18/2006	No secondary containment. No overhead coverage	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required provide secondary containment and install overhead coverage Follow-up Actions Photo verify Actions completed Drum removed from outdoor location.
SW No. SW06-060 Type Commercial Location Address 960 E. Vista Way Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/20/2006	Lack of good housekeeping throughout site.	No secondary containment/overhead coverage, trash lid up, grease spills/discharge, leaves debris, oil from cars on lot.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement BMP's Follow-up Actions Photo verify. 7/12/06, Delfino De Leon called and needed more time to order a secondary containment & overhead cover. All other requirements have been met. Actions completed 7/20/06, New tallow bin with secondary containment - no overhead coverage in place. Told business owner to monitor it. If grease becomes a chronic problem he will need to refine the BMP's.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-056 Type Commercial Location Address 727 E. Vista Way Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/19/2006	Oil / Dirt accumulation	Confirmed complaint description. D-Max corrective action, recommended actions not implemented	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove oil/dirt accumulations by contracting with a power wash company. Provide us with the name and phone # of the company. Follow-up Actions 7/7/06, Site visit with power wash company and Tina Te. Asphalt has deteriorated and power washing will destroy the surface. It was suggested to contact property management for option, possible concrete pavement. Tina will contact property management 7/10/06. Actions completed 7/19/06, Tina Te contacted me. The property management stated that the property owner will need to visit the site. The general area requires a resurface. The auto business is maintained and making a concerted effort with all BMP's.
SW No. SW06-059 Type Commercial Location Address 1350 E. Vista Way #10 Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 10/18/2006	No secondary containment and no overhead coverage	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement BMP's Follow-up Actions Photo Verify. 7/25/06, I spoke with Joyce - no corrective action. We discussed options and she will talk with family for decision. 8/8/06, no corrective action - spoke with Em, Joyce's mother. A message was left for Joyce to call me. 8/9/06, A unit was ordered, per Joyce - will arriving in two weeks. I requested she call when it was in. 8/30/06, Unit arrived cracked. Joyce contacted company to replace it. (grease area clean). 10/2/06, Spoke with Emmy M - new secondary containment arrived. Landlord placed old utter blocking crease drum. Check it in 3 days. 10/17/06. Called North County Grease - all will be Actions completed Recycler in secondary containment and overhead coverage provided.
SW No. SW06-066 Type Commercial Location Address 1350 E. Vista Way, Ste. 8 & 9 Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/20/2006	No secondary containment. No overhead coverage	confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Provide secondary containment and overhead coverage Follow-up Actions Photo verify Actions completed 55 gallon drum removed.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-058 Type Commercial Location Address 1725 E. Vista Way	No secondary container/No overhead coverage on drums. Tires stored outside dumpsters that are not closed.	confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's and provide secondary container and overhead coverage Follow-up Actions Photo Verify Actions completed Area cleared of drums and debris.
Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/20/2006			
SW No. SW06-057 Type Commercial Location Address 815 E. Vista Way	Dmax inspection - grease accumulation	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove grease accumulation provide new tallow bin and monitor for grease spills. Follow-up Actions 7/5/06, spoke with Abdul, on-site manager. Tallow bin to be delivered by 4:00 p.m. Friday. 7/7/06, new bin in place and grease accumulation removed. Actions completed 7/10/06, e-mailed David Deshay with a thank you for your prompt assistance.
Watershed Buena Vista Creek Call Date 6/19/2006 Case Closed 7/10/2006			
SW No. SW05-161 Type Industrial Location Address Pro Metal Works, 2835 La Mirada Dr	Lack of BMP's	9/6/05, Visted site Chris Dzwigalski (Public Work's) and Scott Whitney. Business owner was not at site. Requested appointment. 9/14/05, Met with Scott Whitney on site. I clarified BMP requirements and suggested implementation of appropriate BMP's. Drums need second containment and dumpster lids covered. General BMP's needed.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's or remove storage to covered area. Follow-up Actions 9/21/05, Area cleaner, more organized. Actions completed Area cleaner. Drums have been removed. Storage and metal shaving dumpsters moved indoors.
Watershed Agua Hedionda Creek Call Date 9/6/2005 Case Closed 10/26/2005			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-159 Type Industrial Location Address Proteus Dimensional Tech, Inc. 1260 Distribution Watershed Agua Hedionda Creek Call Date 9/6/2005 Case Closed 9/29/2005	Lack of general site BMP's	Dumpster lid open. Equipment not covered or stored inside. Dirt discharge from rear slope. No 2nd containment for 55 drums stored outside.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's Follow-up Actions Photo of corrected action. Actions completed Area cleared of debris. No drums visible. Chris Gehrisch, CEO, contacted EDCO and requested lids be closed after dumping. Photos taken.
SW No. SW06-001 Type Industrial Location Address 1311 Specialty Dr. (Javo Coffee) Watershed Agua Hedionda Creek Call Date 1/10/2006 Case Closed 1/18/2006	Coffee grounds & extract into storm drain	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Remove and reclaim extract throughout lot and implement BMP's Follow-up Actions Photo verify Actions completed Area cleaned
SW No. SW06-016 Type Industrial Location Address 1331 Specialty Dr. Watershed Agua Hedionda Creek Call Date 4/3/2006 Case Closed 4/17/2006	Illegal discharge of vitamin fluid into storm drain inlet	I witnessed an employee dumping yellow fluid into roofscupper drain. I contacted supervisor and requested a MSDS (Material Safety Data Sheet) information, WDID# and verification of employee training. Cease further discharge.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease further discharge. NOV via e-mail. Follow-up Actions 4/13/06 - Received fax of information. Actions completed MSDS, WDID#, employee training signed. I contacted San Diego County Department of Environmental Health with resolve. Monitoring area intermittently hereafter.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-017 Type Industrial Location Address 1311 Speacalty Dr. Watershed Agua Hedionda Creek Call Date 4/4/2006 Case Closed 4/24/2006	Coffee grounds and extract into storm drain	Confirmed complaint description. Has entered storm drain system as well as tracking into neighboring driveways and parking lots.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Remove and reclaim extract/grounds throughout lot and upgrade existing BMP practices. Follow-up Actions Photo verify. 4/14/k06 rain event occurring and no BMP's in place. Coffee grounds in open dumpstrer and leaking. Issued 3rd citation. 4/19/06, received a call from William Marshall, Javo Beverage Co., Representative. They are refining their BMP's. They have assigned an employee to monitor dumpster and ordered tarps and berms for dumpsters. Actions completed Area cleaner and covers ready to place over ground in dumpster when not in use.
SW No. SW05-139 Type Residential Location Address 1879 Jardine Ct Watershed Agua Hedionda Creek Call Date 7/7/2005 Case Closed 7/12/2005	Overwatering of property	I have been monitoring area for 5 months to determine if water from property could be due to overwatering. Algae build-up indicates fertilizer in water. I spoke with Kate Machus, a neighbor, who stated the area has a high wter table and underground spring. Most residences in this area have water intrusion through at property. I discussed this with Mikhail Ogawa. He recommended a letter be sent to inform resident of over watering and irrigation practices.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reduce water on landscape Follow-up Actions Monitor site intermittently Actions completed Monitor site intermittently
SW No. SW05-138 Type Residential Location Address 1875 Jardine Ct Watershed Agua Hedionda Creek Call Date 7/7/2005 Case Closed 7/12/2005	Overwatering of property	I have been monitoring area for 5 months to determine if water from this property could be due to overwatering. Algae build-up indicates fertilizer in water. I spoke with Kate Machus, a neighbor, who stated the area has a high water table and underground spring. Most residences in this area have water intrusion through at property. I discussed this with Mikhail Ogawa. He recommended a letter be sent to inform resident of overwatering and irrigation practices.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reduce water on landscaping Follow-up Actions Monitor site intermittently. Actions completed Monitor site intermittently

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-141 Type Residential Location Address 735 Rincon St. Watershed Buena Vista Creek Call Date 7/8/2005 Case Closed 12/19/2005	Sediment discharge	Water from pool discharge was running down Rincon onto Mercantile. I contacted tenant about pool discharge and presented "Swim Pool" brochure. I noticed the steep bank next to the driveway that was discharging sediment. I contacted Derrick Anderson of NCTD regarding bank ownership. I e-mailed Derrick for assistance. 11/16/05 Linda Isakson e-mailed Derrick requesting BMP upgrade.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Upgrade BMP implementation to include slope protection. Follow-up Actions On-going Actions completed I spoke with Linda Isakson who has communicated with Derrick, of NCTD and property owner, Rudy Luna. All have agreed to maintain and monitor BMP's.
SW No. SW05-142 Type Residential Location Address 1936 Casa Blanca Ct. Watershed Agua Hedionda Creek Call Date 7/11/2005 Case Closed 7/13/2005	Washing out dead body transport van with fluids entering into storm drain system.	Reporting person stated Larry Walters washed his transport van out with disinfectant (reporting person saw and smelled disinfectant) as well as gurnery and discharging fluids into storm drain system. Three witnesses verified discharge activity. I contact Medical Examiners Office between 10:00 and 10:30 pm (Roger Poggemeyer 858-869-8110) to report violation. The sheriff's office was called and a Community Service Officer spoke with Larry Walter(LW). After sheriff left, LW confronted CL. She stated he was in violation and to discontinue washing practice at residence. LW stated "It wouldn't be any different" if he was washing his car and "water ran down the street". GL witnessed LW wearing protective gloves and spraying gurney with disinfectant, rear van doors were open and facing down to curb/gutter. LW hosed out interior and washed off gurney standing on driveway. CL stated body bags were laying off driveway (not being hosed off). 7/12/05 Medical Examiners office called to state Walter Funeral Services have not worked for them in two years. Car Wash educational material was given to LW	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease Discharge. Wash transport vehicle(s) at self-serve car wash Follow-up Actions None Actions completed With visual monitoring I have now see anymore car washing at this location.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-145 Type Residential Location Address 1710 Warmlands Ave	1710 Warmlands in hosing off driveway carrying away sediment into 1724 Warmlands driveway and into storm drain and creek. Chronic	I distributed six "Only Rain in the Storm Drain" brochures in the immediate vicinity. Area in front of 1724 was dry (as was the rest of the block). I recommended complainant call when violation is occurring(during business hours) and I would contact the property owner directly. Complainant believes the property owner has a vendetta against him and purposefully hoses off the mud onto his property. The driveway design at complainants is such that it would direct rain, hose water or overwatering.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease sediment discharge. Follow-up Actions Intermittent follow-up of area. Actions completed Area clear of sediment. Intermittent monitoring of this area.
Watershed Buena Vista Creek Call Date 7/12/2005 Case Closed 7/13/2005			
SW No. SW05-175 Type Residential Location Address 714 Franklin Ln.	Urinating on walls, vehicles in disrepair, pouring oil down storm drain.	Upon investigation the storm drain at the curb was clear. No urine odor detected. Trash overflowing. Oil appearance is on ribbon gutter at trash enclosure. I contacted Clarence Rich (x 1465) in Code Enforcement. No jurisdiction in regards to urinating on walls. I contacted reporting person and they stated they also contacted San Diego County Health. HELP brochure was left.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease illegal discharge, keep dumpster lids closed, request trash pick-up more often. Follow-up Actions Intermittent inspections Actions completed Storm drains clear. Intermittent inspections
Watershed Buena Vista Creek Call Date 8/1/2005 Case Closed 8/4/2005			
SW No. SW05-177 Type Residential Location Address 675 Rolling Hills Rd	Algae on pavement, constant water discharge	Site under construction. A 4" black corrugated plastic pipe runs the length of the site from a brow ditch below a group of potted palm trees to a gravel detention well. This well is adjoining a gravel runoff area which spills onto the asphalt curb into right-of-way.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove algae and maintain location free of pollutants. Follow-up Actions Photo verify removal of algae. Actions completed Area cleared of algae. Clean water is being discharged from surface water.
Watershed Agua Hedionda Creek Call Date 8/10/2005 Case Closed 8/16/2005			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-176 Type Residential Location Address 617 Durian St. Watershed Buena Vista Creek Call Date 8/10/2005 Case Closed 8/10/2005	Washing concrete into right-of-way	Sediment and concrete dust was present in curb/gutter and right-of-way as well as on driveway/apron. I spoke with property owner, Carol Meuse. She was not aware dirt discharge was a violation. Her contractor swept up area.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove concrete from sidewalk, curb/gutter and right-of-way. Follow-up Actions Verify corrective action. Actions completed Area swept.
SW No. SW05-178 Type Residential Location Address 2035 Foothill Dr. Watershed Buena Vista Creek Call Date 8/15/2005 Case Closed 8/29/2005	Septic system failure. Chronic	Area in yards of 2035 and 2041 Foothill had percolated water (Potable and black). I left information on Stormwater County Hotline and contacted owner.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge - (Contract with plumber immediately.) Follow-up Actions ASAP contractor on scene. Stated that there were two leaks in the in house plumbing. Both areas repaired. Property owner will contact septic plumber to verify system. Check in a week to see that area is not saturated. Actions completed Area drying up per e-mail communication with property owner and 2041 Foothill Dr. on 8/29/05 at 3:17 p.m.
SW No. SW05-180 Type Residential Location Address 400-500 Blk Pina Ln Watershed Buena Vista Creek Call Date 9/2/2005 Case Closed 9/22/2005	Sediment discharge from Pina Ln., discharged to curb/gutter and roadway on Rancho Vista Rd.	Landscape failures throughout Pina Ln. have discharged accumulation of dirt and settling on areas below residences and street crossing. "Help" brochures left at homes.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove sediment and maintain site Follow-up Actions 9/12/05, Little or no corrective action. - Mail verbal warning letter. Actions completed 9/21/05 area cleaner. Sand bags in place at 534 Pina Ln. All others swept up with exception of 543 Pina Ln. 9/22/05 received hotline message from Sheila Stearns, 543 Pina Ln, and she will remove sediment.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-160 Type Residential Location Address Palomar Place, East Extension Watershed Buena Vista Creek Call Date 9/7/2005 Case Closed 10/19/2005	Numerous residences on Palomar Place (East extension of read) are discharging sediment onto roadway. Chronic	Investigation Dates: 8/4/05 & 9/7/05. I contacted VUSD (Vista Unified School District) regarding sidewalk. 9/12/05, Steve Shaw of 1435/1439 left message (760-822-7898 cell #). He will sweep up area. 9/20/05, received call from Tony Tabares (945-8925), returned call and left message.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Verbal letter requesting implementation of BMP's to prevent discharge of dirt. Educational material handout was HELP. Follow-up Actions Photo verify 9/26/05, 1451 Palomar has asphalted their driveway. VUSD has cleared dirt from sidewalk. Actions completed 1768 Queens Way has installed gravel and planted red apple. This concludes the vicinity BMP implementation.
SW No. SW05-181 Type Residential Location Address 1025 Bonnie Brae Pl Watershed Buena Vista Creek Call Date 9/20/2005 Case Closed 9/22/2005	Discharging algae pool water across property to street below.	There is evidence of algae pool water and a discharge trail across 1024 Alta Vista Dr. Photo evidence shows green pool water at 1025 Bonnie Brae Pl.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and redirect pool discharge to street above pool (Bonnie Brae Pl.) Follow-up Actions Intermittent monitoring Actions completed Intermittent monitoring
SW No. SW05-183 Type Residential Location Address 810 Centennial Dr Watershed Agua Hedionda Creek Call Date 9/21/2005 Case Closed 9/29/2005	Dirt stock pile and sediment discharge to storm drain inlet.	Cutting of slope and removal of dirt accumulation on property is stockpiled adjacent to storm drain inlet on north rear of property.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's or remove stockpiles Follow-up Actions Photo verify Actions completed Area cleared of dirt - fiber rolls in place.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-184 (Sup) Type Residential Location Address 500 blk of Hildale Cir. Watershed Buena Vista Creek Call Date 9/22/2005 Case Closed 10/2/2005	Drainage ditch running behind houses on Hildale Cir.	Brow ditches congested with dirt, trash, etc accumulation. Portion of ditches owned by City - refer to Public Works for clearing.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required 9/22/05, I spoke with some residences while placing Help flyers. Contactd resident at 550 Hildale Cir. as property was denuded. No response. Mailed Verbal Warning Letter to request ground BMP implementation. Sent Verbal Warning Letter to 554 Hildale Cir. also. Little response. Follow-up Actions Photo Verify. 550 Hildale: 10/25/05, No correction - sent NOV letter by regular and certified mail. Follow-up 11/1/05. 11/3/05, area has no perimeter protetion - photo evidence- issued citation. Actions completed All residences: Corrective action taken by residences with exception of 550 Hildale Cir. Brow ditch cleared satisfactorily during October 2005.
SW No. SW05-185 Type Residential Location Address 1337 Durian Ct Watershed Buena Vista Creek Call Date 9/28/2005 Case Closed 9/29/2005	Split gravel bags in curb/gutter	I left a "Help" flyer at the door on 9/2/05 and subsequently checked thereafter. Flyer was laying on ground. I taped it to the garage door on 9/12/05. In area again on 9/28/05, bags not removed. I taped NOV to garage.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove split gravel bags and sweep area free of debris. Follow-up Actions Photo verify Actions completed I spoke with Sid Shah, Rental Manager, Supervisor. He is having vehicles washed at car wash and researching other possibilities. He stated they would not wash vehicles in the back lot area.
SW No. SW05-188 Type Residential Location Address 218 E. California St. Watershed Buena Vista Creek Call Date 10/5/2005 Case Closed 10/11/2005	Grease poured on dirt.	Grease has spilled over from 218 E. California on to 204 E. California's side yard at fence line. I spoke with tenant at 218 E. California who stated he would remove grease.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove grease. Follow-up Actions Photo verify Actions completed Corrective action verified.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-189 Type Residential Location Address 1228 Lagan Ave Watershed Buena Vista Creek Call Date 10/5/2005 Case Closed 10/11/2005	Dumping washing machine discharge water into storm drain.	A white pipe extended through garage wall to yard drain. This discharged to curb.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions Photo verify and run water test through line. Actions completed Pipe removed - Photo verified.
SW No. SW05-197 Type Residential Location Address 1791 Wolverine Way Watershed Buena Vista Creek Call Date 10/13/2005 Case Closed 10/14/2005	Washout of concrete into curb/gutter and has migrated to cross gutter at Beverly.	Complaint verified and vicinity is as described above. I spoke with homeowner. Contractor will be called to remove concrete residue.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove residue Follow-up Actions Photo verify Actions completed corrective action verified.
SW No. SW05-198 Type Residential Location Address 1629 Arrowood Ln Watershed Buena Vista Creek Call Date 10/17/2005 Case Closed 11/2/2005	Mud discharging off property	I previously left HELP brochure on 7/27/05 with Brooke Gordon. Some BMP's implemented. Since last rain we received a call on 10/17/06 existing BMP's require upgrading.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease sediment discharge, implement and upgrade BMP's to prevent run off. Follow-up Actions Remove sediment and implement BMP's to prevent further discharge. Actions completed Corrective action verified.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-200 Type Residential Location Address 800 Blk of Phillips St. Watershed Buena Vista Creek Call Date 10/20/2005 Case Closed 11/14/2005	Excessive sediment discharge from all residents. Chronic	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove sediment, vegetation and implement appropriate BMP's. Follow-up Actions Photo verify Actions completed BMP's implemented at location. Area much improved and slopes are vegetated. BMP's at 885 have been vandalized. Contacted property owner and she is making repairs.
SW No. SW05-208 Type Residential Location Address 1721 Monte Vista Dr. Watershed Buena Vista Creek Call Date 10/21/2005 Case Closed 11/17/2005	Over watering	Confirmed complaint description. Road intersection of Monte Vista and Valley is eroding and percolating water.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease overwatering. Follow-up Actions Presently it is the rainy season. Intermittent inspection during dry days will indicate less water discharge. Actions completed 11/10/05, Property owner contacted me. She is conscientious regarding storm water pollution and feels the water is caused from 3 neighbors above as well as contractor who washed off equipment last week (about the time I was taking evidence photos). I will drop educational flyers to residents in area surrounding 1721 Monte Vista and research any construction in that location. 11/17/05, I met with Cathy Nakamura today. A perimeter brow ditch discharges two homes above and to the south, which empties to their driveway into right-of-way. David Shaw reported no active permitted construction.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-207 Type Residential Location Address 1112 Monte Vista Dr. Watershed Buena Vista Creek Call Date 10/26/2005 Case Closed 11/8/2005	Sediment discharge	Excessive accumulation of sediment discharging from site.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove sediment and implement BMP's. Follow-up Actions Photo verify Actions completed Area clear of sediment, BMPs implemented. I contacted property owner and requested maintenance thereafter.
SW No. SW05-209 Type Residential Location Address 1114 Monte Vista Dr Watershed Buena Vista Creek Call Date 10/27/2005 Case Closed 11/22/2005	Sediment discharge off property	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement BMP's Follow-up Actions Photo verify. 11/14/05, Eleanor Meza contacted me. She is installing fiber fills within the week. Actions completed BMP's in place. Photo verified. Contacted property owner to monitor site for BMP applicability and maintenance.
SW No. SW05-215 Type Residential Location Address 1700 blk of Monte Vista Dr. Watershed Buena Vista Creek Call Date 10/27/2005 Case Closed 12/20/2005	Overwatering, roadway erosion	Confirmed complaint description.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reduce water discharge Follow-up Actions Intermittent monitoring Actions completed 12/19/05 I spoke with residences who felt excessive water emanates from 1702 El Dorado Ct. I left "HELP" flyer at the door (no answer) on 7/20/05 and mailed verbal letter with "HELP" flyer enclosure. A lot of alligatoring asphalt at 1702 El Dorado Ct. Numerous agapantha plants cover property.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-206 Type Residential Location Address 824 Earth Dr. Watershed Buena Vista Creek Call Date 10/31/2005 Case Closed 11/21/2005	Brow ditch congested with miscellaneous household items, trash and debris.	Confirmed complaint description. I gave HELP brochure with request to remove items by 11/7/05 to young man at residence. I spoke with Mr. Gonzales and his attorney. Area will be cleaned.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove items and clear brow ditch, use no water. Follow-up Actions Photo verify Actions completed 11/8/05, No corrective action. Send violation letter. 11/14/05, Debris and household items removed from ditch. Dirt remains. 11/21/05, Area cleared of sediment. Photo verified.
SW No. SW05-211 Type Residential Location Address 679 Lado de Loma Watershed Buena Vista Creek Call Date 11/7/2005 Case Closed 12/19/2005	Sediment on driveway discharging into right-of-way.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and remove sediment potential on driveway. Follow-up Actions 11/22/05 No corrective action - Issued NOV sent reg/certified. Photo verify. Actions completed 12/19/05 Area cleared of debris.
SW No. SW05-210 Type Residential Location Address 280 Avalon Dr. Watershed Buena Vista Creek Call Date 11/10/2005 Case Closed 11/10/2005	Power washing and not capturing discharge	Confirmed complaint description. I spoke with property owner. He was not aware it was a violation to not reclaim water. I gave him HELP brochures to give to tenants and Motor Oil as well as Power Washing brochures. I also wrote web addresses that would provide him with options for reclamation of discharge if he chooses to continue power washing site.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement appropriate BMP's to power wash site. Follow-up Actions Observe intermittently Actions completed Ceased power washing. Observe intermittently.

GENERAL**COMPLAINT DESCRIPTION****SITE INVESTIGATION****ENFORCEMENT AND FOLLOW UP**

SW No.
SW05-216

Type
Residential

Location Address
2165 Opal Ridge

Watershed
Agua Hedionda Creek

Call Date
12/9/2005

Case Closed
12/23/2005

A green Ford Taurus was in a wreck and is leaking fluids: "It appears something was put down to absorb the fluid at one point in time." Code Dept (Erika Shaw) advised them to clean it and NOT hose it down.

12/9/05 Oil spill in street. Sand has been placed to soak up spill - no one at home - left door hanger (HELP) with a note to sweep up the spill. 12/20/05 - No

Enforcement Action ☐ None ☐ Verbal ☒ NOV ☐ Citation/Fine

Correction Actions Required
Remove grease accumulation

Follow-up Actions
12/20/05 No corrective action - issued NOV

Actions completed
I spoke with Mr. Lawson, property owner. He has placed an absorbant on grease and will redo until grease is lifted. Area cleaner.

SW No.
SW05-222

Type
Residential

Location Address
405 N. Melrose

Watershed
Buena Vista Creek

Channel not being maintained.

Area not severe but needs some maintenance. I faxed Professional Community Management (PCM) and requested cleanup.

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required
Clean channel

Follow-up Actions
Verify corrective action.

Actions completed
Channel clean - e-mailed PCM with photo as a great example of a clean channel.

SW No.
SW05-219

Type
Residential

Location Address
637 Galaxy

Watershed
Buena Vista Creek

Concrete discharge into right-of-way

Concrete discharge had entered gutter and ran about 200 yards to cul-de-sac and area near storm drain inlet. Grass clogged concrete and acted as a filter.

Enforcement Action ☐ None ☐ Verbal ☒ NOV ☐ Citation/Fine

Correction Actions Required
Cease discharge. Remove concrete from curb/gutter and right of way. Implement concrete washout.

Follow-up Actions
Verify clean-up

Actions completed
Corrective action verified. Signed property owner's NOV on site.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-009 Type Residential Location Address 2400 blk Links Way Watershed Agua Hedionda Creek Call Date 2/3/2006 Case Closed 2/8/2006	Repainting red curb in private residential area.	Red paint chips were visible in gutter and curb landscape area. I contacted Susan Sharp (GRG Management) and e-mailed photos with request to remove chips. I spoke with Irma Olivas (Lot Mangament) contractor, (760) 476-1700, and e-mailed same. Steve Harman is General Manager.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge. Remove red pain chips from curb/gutter areas. Follow-up Actions Photo verify Actions completed Area cleared of paint chips.
SW No. SW06-011 Type Residential Location Address 200 S. Emerald Dr. #14 Watershed Agua Hedionda Creek Call Date 2/13/2006 Case Closed 2/14/2006	Sewer leak/ rotten vegetation odor and water	A willow tree had been removed and water continually seeps into stump hole and behind retaining wall. Roots visible between #14 & #15 space easements. Wet rotting wood odor is present. Possible root intrusion into sewage lines (creating leak and sewage odor). Recommended camera on sewer lines to verify flow is not obstructed or leaks present.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Private issue problem. Follow-up Actions Recommended viewing sewer lines to #14 & #15 with video camera. Actions completed N/A Private issue
SW No. SW06-012 Type Residential Location Address 811 N. Santa Fe Ave. #2 Watershed Buena Vista Creek Call Date 2/13/2006 Case Closed 3/17/2006	Washer not plumbed to sewer.	Washer to rear of #2, no answer. Detergent residue and odor apparent.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Plumb to sanitary sewer or remove washer. Follow-up Actions Verify 2/28/06, no action send NOV - reg.& Certified. 3/9/06, Received call from James Snow - working on resolving this issue. Actions completed 3/17/06 Washer removed, no discharge visible.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-015 Type Residential Location Address 1846 Warmlands Ave. Watershed Buena Vista Creek Call Date 2/16/2006 Case Closed 3/29/2006	Denuded site.	Denuded site due to re-landscaping, no BMP's. Dirt discharging into roadway. Left educational information.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement BMP's Follow-up Actions 2/27/06, No corrective action. Educational information no longer on front door. 3/13/06 No corrective action, Issue NOV. 3/27/06, No corrective action, contacted Jose, Sr. after he came to Engineering Dept. and stated that he just got the NOV letter. His son did not take care of the house and Jose, Sr. has re-acquired it. He will place BMP's today. Actions completed BMP's implemented - No discharge visible.
SW No. SW06-014 Type Residential Location Address 900 BLk Thomas Pl (Edge Hill Ranch Estates) Watershed Buena Vista Creek Call Date 2/16/2006 Case Closed 3/2/2006	Soil erosion, overwatering, lack of BMP's	Numerous violation potentials throughout community. Left "HELP" flyers throught. I contacted property management and they will clean up and enforce stormwater regulations. Recontacted complainant for status.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease overwatering, implement BMP's at various residences. Follow-up Actions Monitor Actions completed Monitor intermittently
SW No. SW06-021 Type Residential Location Address 1755 Alta Vista Dr. Watershed Buena Vista Creek Call Date 4/12/2006 Case Closed 4/24/2006	Sediment discharge onto Peach Grove - broken driveway	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove sediment along Peach Grove down to cross gutters and implement BMP's or repair driveway. Follow-up Actions Verify area swept Actions completed Area swept of dirt.

GENERAL**COMPLAINT DESCRIPTION****SITE INVESTIGATION****ENFORCEMENT AND FOLLOW UP**

SW No.
SW06-025

Type
Residential

Location Address
1040 North Ave.

Watershed
Buena Vista Creek

Call Date
4/28/2006

Case Closed
6/6/2006

Sediment leaving property from eroding driveway.

Confirmed complaint description. 5/8/06, I received a call from the property owner requesting an extension. He will request no more car washing on driveway and implement BMP's and replace driveway.

Enforcement Action ☐ None ☐ Verbal ☒ NOV ☐ Citation/Fine

Correction Actions Required
Cease discharge, repair driveway or implement BMP's to prevent further sediment discharge.

Follow-up Actions
Photo verify

Actions completed
New concrete driveway has been installed.

SW No.
SW06-029

Type
Residential

Location Address
303 Lado De Loma Dr

Watershed
Buena Vista Creek

Call Date
5/4/2006

Case Closed
5/22/2006

Chronic sediment discharge off property - THIS PROPERTY IS NEXT TO 402 RACHCO VISTA RD - SAME OWNER - See case # SW06-030

Confirmed complaint description. 5/22/06, Angela contacted me to say she would implement ice plant and maintain site.

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required
Cease discharge and implement BMP's.

Follow-up Actions
5/22/06, Received phone call from property owner, BMP's will be implemented.

Actions completed
Intermittent monitoring.

SW No.
SW06-028

Type
Residential

Location Address
534 Pina Ln

Watershed
Buena Vista Creek

Call Date
5/4/2006

Case Closed
5/23/2006

Chronic sediment discharge, denuded property

Confirmed complaint description.

Enforcement Action ☐ None ☐ Verbal ☒ NOV ☐ Citation/Fine

Correction Actions Required
Cease discharge, implement appropriate BMP's.

Follow-up Actions
BMP's implemented; gravel on driveway and gravel bags at corners of driveway.

Actions completed
BMP's implemented; gravel on driveway and gravel bags at corners of driveway.

GENERAL**COMPLAINT DESCRIPTION****SITE INVESTIGATION****ENFORCEMENT AND FOLLOW UP**

SW No.
SW06-030

Type
Residential

Location Address
402 Rancho Vista Rd

Watershed
Buena Vista Creek

Call Date
5/4/2006

Case Closed
5/22/2006

Chronic sediment discharge off property - THIS PROPERTY IS NEXT TO 303 LADO DE LOMA - SAME OWNER - See case # SW06-029

Confirmed complaint description. 5/22/06, Angela contacted me to say she would be implementing ice plant and would maintain location.

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required
Cease discharge and implement BMP's

Follow-up Actions
5/22/06, Received phone call from property owner and BMP's will be implemented.

Actions completed
Intermittent monitoring.

SW No.
SW06-039

Type
Residential

Location Address
915 Brooktree Ln

Watershed
Agua Hedionda Creek

Call Date
5/16/2006

Case Closed
5/22/2006

Over watering and creating discharge of sediment, trash and debris to enter creek at Watson Way street extension.

Confirmed complaint description

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required
Reduce over watering and maintain site free of sediment, trash and debris.

Follow-up Actions
Intermittent monitoring

Actions completed
Intermittent monitoring

SW No.
SW06-037

Type
Residential

Location Address
2260 Watson Way

Watershed
Agua Hedionda Creek

Call Date
5/16/2006

Case Closed
5/22/2006

Sediment and vegetation discharging into concrete ditch leading to natural water course.

Confirmed complaint description

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required
Reduce sediment and vegetation discharge.

Follow-up Actions
Intermittent monitoring

Actions completed
Intermittent monitoring

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-038 Type Residential Location Address 885 Brook Tree Ln. Watershed Agua Hedionda Creek Call Date 5/16/2006 Case Closed 5/22/2006	Over watering and creating discharge of sediment, trash and debris to enter creek at Watson Way street extension.	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reduce overwatering and maintain site free of sediment, trash and debris. Follow-up Actions Intermittent monitoring Actions completed Intermittent monitoring
SW No. SW06-044 Type Residential Location Address 678 Hillside Terr Watershed Buena Vista Creek Call Date 5/23/2006 Case Closed 6/5/2006	Paint discharge.	Dried white stucco discharge from 678 Hillside Terrace migrating down private roadway toward storm drain inlet. I initially left "HELP" flyer, received no response then issued a NOV.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove stucco stain. Follow-up Actions Photo verify Actions completed Slurry seal has been laid over stain.
SW No. SW06-045 Type Residential Location Address 1921 West Dr. Watershed Buena Vista Creek Call Date 5/26/2006 Case Closed 6/7/2006	Pollutant discharge migrating into roadway and into 1913 West Dr.	Confirmed complaint description. I spoke with worker who was saw cutting concrete at base of cement mortar unit (CMU) wall. The concrete dust was being washed off property, entering the right-of-way and being tracked throughout area. The worker did not know who he worked for. I knocked on office door (closed @ noon). I contacted rental phone number received a voice message. I re-contacted an hour later and connected with Rayann Brewer of S & R Properties. I e-mailed her photos and faxed the NOV.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and remove pollutant from property following migration. Follow-up Actions Photo verify. David Shaw checked area (I was on vacation). He took photos. Area at 1913 was cleaner but 1921 was not. Upon my return I e-mailed Rayann requesting update of cleaning/removal. Actions completed 6/7/06, area clean per Roger Brenzel (visual). Photos taken 6/5/06 showed improvement from original complaint photos.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-053 Type Residential Location Address 218 Vista Glen Ln. Watershed Buena Vista Creek Call Date 6/6/2006 Case Closed 6/19/2006	No perimeter protection	Confirmed complaint description. Jose Calderon stated that tenants from apartments park on his property creating a tracking problem.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement perimeter protection. Follow-up Actions Photo verify Actions completed Area swept and some BMP (board and rocks) implemented.
SW No. SW06-054 Type Residential Location Address 100 & 200 blks of Cooper Watershed Buena Vista Creek Call Date 6/7/2006 Case Closed 7/12/2006	Accumulation of sediment - lack of BMP's	Confirmed complaint description. Yellow highlight - Violator - verbal letter sent. Orange highlight - Compliance - Thank you letter sent.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, implement BMP's and maintain thereafter. Follow-up Actions Photo verify. 7/12/06 - 209, 243 & 262 little or no apparent correction with prevelant sediment discharge and denuded slopes: Monitor for future NOV issuance. Actions completed Intermittant monitoring
SW No. SW06-055 Type Residential Location Address 949 Ruby Dr. Watershed Buena Vista Creek Call Date 6/14/2006 Case Closed 6/26/2006	Overwatering, algae in gutter	Landscape very green and lush throughout property. Outdoor sink plumbed to landscape drainage (a bit of algae in sink also) which exits at curb/gutter. Yellow foamlike substance and green algae visible at both curb cuts. Overwatering/fertilizing is a concern.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove outdoor sink or obtain permit and plumb to sewer system. Reduce overwatering & fertilizing. Follow-up Actions Photo Verify. 6/21/06 Mrs. Mai (Martha) called and reported that it was new sod and needed a lot of water. Husband is returning this weekend and will remove the sink. Actions completed Sink removed.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-063 Type Residential Location Address 415 Plymouth Dr. Watershed Buena Vista Creek Call Date 6/20/2006 Case Closed 6/21/2006	Pool water discharge - algae	Confirmed complaint description. I spoke with Ken Dehart - Pool Genie-(760) 212-2674. He will research options.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and reroute to appropriate location. Follow-up Actions Verify through visual that the algae pool water is disposed of properly. Actions completed I met with Ken on site. Pool water is discharged to sanitation sewer (okay per Encina and the City of Vista).
SW No. SW06-064 Type Residential Location Address 669 Lado de Loma Watershed Buena Vista Creek Call Date 6/22/2006 Case Closed 7/27/2006	Sediment discharge, failed BMP's	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and repair/replace existing BMP's Follow-up Actions 6/27/06, Was contacted by Glen McCarger. He will correct the problem. 7/7/06, Glen called to say a fence company has been contracted and gave no specifics. Issued NOV. 7/10/06, Glen stated the fence people will place fence this week. 7/18/06, Property owner called to say fence is being installed on Saturday, July 22, 2006. 7/25/06, No corrective action. Called property owner stating citation will be issued. Mr. McCrager called and said Kurt Houston (619) 665-2959 was contractor and was brying to obtain a fence permit. I called Mr. Houston and gave him the direct line to Development Services for Actions completed 7/21/06, Contacted Developoment Services/Building Depts. No permit for fence. Contacted Glen, permit required. He would contact fence contractor.
SW No. SW05-193 Type Construction Location Address 819 Eucalyptus Ave Watershed Buena Vista Creek Call Date 10/4/2005 Case Closed 10/24/2005	Lack of site BMP's	Linda Isakson received complaint. I e-mailed Engineer Inspector who contacted construction supervisor to implement site preimeter BMPs.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement site BMP's Follow-up Actions Photo verify Actions completed BMP's implemented

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-194 Type Construction Location Address 572 Bobier Dr. Watershed Buena Vista Creek Call Date 10/5/2005 Case Closed 10/24/2005	Lack of BMP's	Received complaint from Linda Isakson. I contacted Frank Duraza, Engineer Inspector for construction site. He contacted construction superintendent who implemented appropriate site BMP's to perimeter.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement site perimeter BMP's to prevent sediment discharge. Follow-up Actions Photo Verify Actions completed Corrective action verified.
SW No. SW05-195 Type Construction Location Address 2240 San Clemente Ave Watershed Buena Vista Creek Call Date 10/9/2005 Case Closed 10/24/2005	Lack of perimeter BMP's	I received complaint from Linda Isakson on 10/11/05. I contacted Kurt Groscup, Engineer Inspector, who contacted site superintendent.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Implement site BMP's Follow-up Actions Photo verify Actions completed BMP's implemented.
SW No. SW05-218 Type Construction Location Address 721 Oceanview Dr. Watershed Buena Vista Creek Call Date 12/29/2005 Case Closed 1/23/2006	BMP Failure	Site in disrepair. BMP failure. I contacted Rashimi Bhatt, left a message. He returned call (by message) to state he was in Northern California and would call 1/4/06 upon his return. I returned call 1/6/06 and spoke with Rashmi.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Upgrade and repair BMP's. Follow-up Actions Verify compliance of BMPs Actions completed 1/16/06 - No corrective action. 1/17/06, contacted Rashmi Bhatt. He has contracted with Reggie Garcia. I contacted Reggie and e-mailed him pictures of site. Reggie stated he would comply and requested until 1/23/06. 1/23/06, Site BMP's improved, area cleaner.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-019 Type Construction Location Address 509 W. Vale View Dr. Watershed Buena Vista Creek Call Date 4/10/2006 Case Closed 4/13/2006	No BMP's (GP# 04-015)	I contacted Mr. Temasebi after investigating site and requested upgrade on BMP's.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Upgrade BMP's Follow-up Actions Photo verify Actions completed All BMP's improved and implemented.
SW No. SW05-190 Type Other Location Address Durian St. & Tylee St. Watershed Buena Vista Creek Call Date 10/5/2005 Case Closed 11/8/2005	Brow ditch blocked with vegetation, trash and debris.	I began investigation at crest of Durian St. (471 Durian St.). I spoke with property owner at the address who allowed me access to back yard. Brow ditch was obscured due to overgrowth of vegetation. I gained access to brow ditch outlet at 409-401 Durian St. Photo's taken. On 10/6/05 I left 'Help' brochures requesting brow ditch maintenance.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove overgrown vegetation, trash and debris from drow ditch at rear of property. Follow-up Actions Photo verify - contact complainant Actions completed 10/25/05, little corrective action, verbal warning letters sent to all. 11/5/05, 441 Durian cleared their ditch portion (e-mail from them with photo's). 11/8/05, Brow ditch cleared up to 441 Durian/ 1263 Tylee. 447 Durian and 1257 have minimal muck still at base of ditch. I contacted 1257 Tylee requesting additional clean-up. Landscaper will clear mud.
SW No. SW05-192 Type Other Location Address 836 Olive Ave. Watershed Buena Vista Creek Call Date 10/5/2005 Case Closed 11/8/2005	Car Wash advertised in local paper.	I received e-mail from Linda Isakson to follow up with VUSD for information and left voice message. 10/20/05 - No response - sent another e-mail. Voice message from Jeff Geyer stating he was researching car wash approval. 10/26/05, no response from Jeff. Called and was informed he is out of the office until mid November. I contacted Chely Zeppilli (office ext. 2231). She stated Ron Royer is subbing for Jeff and I was to leave a message with her for Ron (726-2170 ext 2222). 10/27/05, Ron and Jeff are creating a procedure for car washes at school sites. 11/1/05, Chuck Taylor and Sec'y, Maria Rogers (726-2170 ext 2222 left message. I returned call again into voice message. 11/2/05, called in the morning, Chuck not available. Called in the afternoon and spoke with Chuck. He would like suggestions for drafting an policy. I referred him to Linda Isakson.	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and implement BMP's to reclaim discharge water. Follow-up Actions Verify School District Policy of car washes. Actions completed Schools fall under Phase II of NPDES regulations. Chuck Taylor, Chief of Operation for Vista Unified School District, is formulating policy and schools are aware of pollution discharge violations.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW05-212 Type Other Location Address 600 Blk of Lado De Loma Watershed Buena Vista Creek Call Date 11/7/2005 Case Closed 1/16/2006	Sediment discharge into right-of-way	Confirmed complaint description	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, remove sediment in street and implement BM's Follow-up Actions 11/22/05, No corrective action - issue NOV registered and certified. Photo Verify. 12/19/05, no corrective action - contacted neighbor next door (Mike Catlin). 1/9/06, no corrective action. Contacted neighbor (Mike Catlin, who stated on 12/19/05 that BMP's would be researched and implemented) and left message. 1/12/06, No corrective action. Contacted Mike, left message. 70% rain event expected on Saturday. Actions completed 1/16/06 Fiber Rolls have been installed.
SW No. SW05-217 Type Other Location Address 1500 Blk Acacia Cir Watershed Buena Vista Creek Call Date 12/8/2005 Case Closed 12/8/2005	Overflowing manhole (private residence) and it was entering a storm drain.	Arrived on Hacienda. Vactor was setting up at the curb inlet cleanout. The D75 was carrying sewage into curb inlet. I followed the drainage ditch uphill and wastewater crew was working on the blockage. See Photo for debris	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clear blocked manhole, remove sewage from ditch, post water bodies, take samples. Follow-up Actions Verify clearance of blockage Actions completed All requirements to contain and mitigate sewage spill was accomplished by City crews.
SW No. SW06-006 Type Other Location Address 100 blk of Luzeiro Dr. Watershed Agua Hedionda Creek Call Date 1/23/2006 Case Closed 2/8/2006	Sediment discharging off site, BMP failure	Confirmed complaint description. 1/30/06, I spoke with Winston Elfon, new owner. I e-mailed photos and he had received a copy of photo (black & white) with letter and NOV forwarded from previous owner, George Karroum. Mr. Elton "will remove sediment in the next few days".	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge/upgrade BMP's Follow-up Actions Photo verify Actions completed BMP's upgraded and sediment removed from roadway.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. SW06-010 Type Other Location Address 1400 Block of S. Santa Fe Watershed Buena Vista Creek Call Date 2/7/2006 Case Closed 3/28/2006	Failure of existing BMP's	Confirmed complaint description. Contacted previous owner for any updated information of property (see e-mail 2/9/06 2:48 p.m.). Lot sold six months ago.	Enforcement Action <input type="checkbox"/> None <input type="checkbox"/> Verbal <input checked="" type="checkbox"/> NOV <input checked="" type="checkbox"/> Citation/Fine Correction Actions Required Remove sediment from right-of-way and repair or replace existing BMP's and maintain. 2/28/06, received call from Azam (Property Management Co.). She requested fax copy of letter & NOV. Faxed 2/28/06 14:49hrs. Follow-up Actions Photo Verify. 3/2/06, Phone call to Azam, she expects bags in by Monday 3/6/06 - monitor. 3/6/06, no corrective action, phoned Azam and she said by Friday at the latest (3/10/06). 3/13/06, no corrective action, issue citation #288. Actions completed 3/27/06, BMP's in place. I requested Sudi Shoja call Azam to clarify continual maintenance.
SW No. SW06-027 Type Other Location Address 231 Guajome Street Watershed Buena Vista Creek Call Date 5/4/2006 Case Closed 5/9/2006	Hose with running water into roadway	Water from a green garden hose was discharging into roadway. I picked up hose and redirected water to landscape. Further investigation showed hose was attached to a pump at the bottom of a baptismal font. The font drain was taped over with duct tape. The font had an approximate 6" depth of water which smelled slightly chlorinated. The hose from font and pump ran through a door knob hole to street.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and use of font until such time that it can be repaired and plumbed to sanitary sewer system. Follow-up Actions Observe Intermittently Actions completed Discharge ceased. Observe Intermittently

GENERAL**COMPLAINT DESCRIPTION****SITE INVESTIGATION****ENFORCEMENT AND FOLLOW UP**

SW No.
MISC 0506-17

Type
Private Lateral

Location Address
1385 Park Center Dr.

Manhole on private property backing up with sewage.

Water use has stopped, portable sanitation units delivered. Repair service has been called. No sewage spilling.

Enforcement Action ☒ None ☐ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required

Water use has stopped, portable sanitation units delivered. Repair service has been called. No sewage spilling.one

Follow-up Actions

None

Watershed**Call Date**

12/6/2005

Case Closed

12/6/2005

Actions completed

None - Private Property, Private Issue

SW No.
MISC 0506-31

Type
Private Lateral

Location Address
1112 Monte Vista Dr

Raw sewage running onto property from house

Do discharge off private property, therefore, private issue.

Enforcement Action ☒ None ☐ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required

None

Follow-up Actions

None

Watershed**Call Date**

1/12/2006

Case Closed

1/12/2006

Actions completed

None

SW No.
MISC 0506-54

Type
Private Lateral

Location Address
1108 Vista Bonita Dr.

Sewer backup problem on site.

Sewer backup problem on site. On private property, private issue, plumber called.

Enforcement Action ☐ None ☒ Verbal ☐ NOV ☐ Citation/Fine

Correction Actions Required

Repair private lateral

Follow-up Actions

Phone property owner

Watershed**Call Date**

5/11/2006

Case Closed

5/11/2006

Actions completed

Phoned property owner - line cleared

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-08 Type Commercial Location Address 1451 N. Santa Fe Watershed Buena Vista Creek Call Date 10/18/2005 Case Closed 11/1/2005	leaking water dispensing machine, algae accumulation	leaking water dispensing machine, algae accumulation	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge, clean up algae. Follow-up Actions photo verify Actions completed Area cleaned
SW No. MISC 0506-07 Type Commercial Location Address 249 Indiana Ave Watershed Buena Vista Creek Call Date 10/20/2005 Case Closed 10/20/2005	Mobile car washing. Not collecting water.	Mobile car washing. Not collecting water.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reclaim discharge water Follow-up Actions None Actions completed Contacted Code Compliance Dept. for clarification on mobile washing.
SW No. MISC 0506-09 Type Commercial Location Address 225 Vista Village Dr Watershed Buena Vista Creek Call Date 10/28/2005 Case Closed 10/28/2005	miscellaneous trash at loading dock	miscellaneous trash at loading dock	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clean up trash and maintain Follow-up Actions photo verify Actions completed Area clean. Monitor

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-10 Type Commercial Location Address 1611 A S. Melrose Dr. #130 Watershed Call Date 10/31/2005 Case Closed 11/1/2005	Anonymous Phone Call - Pouring something into storm drain inlet from Steam America business at above address	No business at this location by that name. Checked local vicinity - unfounded. Saw nothing as described by caller	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
SW No. MISC 0506-12 Type Commercial Location Address 30 Main St. Watershed Buena Vista Creek Call Date 11/3/2005 Case Closed 11/3/2005	scrub wash water put into storm drain inlet	scrub wash water put into storm drain inlet	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Reclaim discharge water Follow-up Actions Monitor Actions completed Monitor
SW No. MISC 0506-21 Type Commercial Location Address 1595 E. Vista Way Watershed Buena Vista Creek Call Date 12/29/2005 Case Closed 12/29/2005	Discharge of wash water	Discharge of wash water. Spoke with manager at 7- 11 Store. Presented a HELP brochure and requested that all discharge water be reclaimed	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge or reclaim Follow-up Actions Monitor Actions completed Monitor

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-37 Type Commercial Location Address 451 Bobier Dr. Watershed Buena Vista Creek Call Date 2/3/2006 Case Closed 2/3/2006	Car wash fund raiser held on Saturday	Contacted facilities manager - reclaim all discharge water	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease car wash or reclaim all discharge water Follow-up Actions Monitor Actions completed Monitor
SW No. MISC 0506-36 Type Commercial Location Address 933 Postal Way Watershed Call Date 2/3/2006 Case Closed 2/8/2006	Failing retaining wall at top of slope	Failing retaining wall at top of slope. Referred to Planning/Development Services. Private Property / Private Issue	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
SW No. MISC 0506-44 Type Commercial Location Address various locations Watershed Buena Vista Creek Call Date 2/26/2006 Case Closed 2/28/2006	Dirt in street. Rain forecast for this week.	Dirt in street - Forwarded to Public Works	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Requested street sweeping before rain event Follow-up Actions Monitor Actions completed Monitor

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-48 Type Commercial Location Address 727 E. Vista Way Watershed Buena Vista Creek Call Date 3/30/2006 Case Closed 4/4/2006	Presence of oil, fuel, solvent, trash, leaves and debris	Presence of oil, fuel, solvent, trash, leaves and debris @ Ted's Auto Repair	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Completely clean area and maintain Follow-up Actions Monitor Actions completed Area clean. Monitor
SW No. MISC 0506-56 Type Commercial Location Address 976 Escondido Ave Watershed Buena Vista Creek Call Date 6/8/2006 Case Closed 6/9/2006	Broken sprinkler	Broken sprinkler.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Contacted Union 76 gas station administrator. Need to pick up all trash and repair sprinkler lines. Follow-up Actions Photo verify Actions completed Area dry. Trash cleaned up
SW No. MISC 0506-57 Type Commercial Location Address 780 Sycamore Ave Watershed Agua Hedionda Creek Call Date 6/8/2006 Case Closed 6/9/2006	Trash and debris in loading dock.	Trash and debris in loading dock. Spoke with Cunuto, Store Manager at Stater Brothers, requesting clean up and maintenance.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required clean up and maintenance on southwest loading dock. Follow-up Actions Photo verify Actions completed Area cleaned

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-55 Type Industrial Location Address 2525 Birch St. Watershed Agua Hedionda Creek Call Date 5/12/2006 Case Closed 5/12/2006	Jensen Meats has a brow ditch that is unkempt and water is overflowing and running downhill onto property at 242 Cades Way.	Debbie Anselm was contacted at Jensen Meats (760) 727-6700 . She would investigate the runoff. Debbie could not locate any overflowing water and walk the perimeter. I asked her if I may give her name to the complainant. She was amenable. I contacted complainant leaving a message with Debbie's name and number. Private property/private issue.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Private Issue - No corrective action by us Follow-up Actions Contact complainant Actions completed Called complainant and he is in communication with Jensen Meat.
SW No. MISC 0506-58 Type Industrial Location Address 1380 Aspen Way Watershed Agua Hedionda Creek Call Date 6/12/2006 Case Closed 6/12/2006	Boxes of muriatic acid	I spoke w/ Gil Stone of Hammon Construction, who built commercial business 6 mos ago. Stains on pavement are from iron in the soil. He hired power wash company to clean stain and they tried muriatic acid and reclaimed discharge.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Dispose of muriatic acid empty boxes appropriately Follow-up Actions Photo verify Actions completed Boxes removed
SW No. MISC 0506-60 Type Industrial Location Address 2480 Grand Ave Watershed Agua Hedionda Creek Call Date 6/22/2006 Case Closed 6/23/2006	Traced ammonia found in Aqua Hedionda River to the upper area by Grand Ave per Westin Dry Weather Monitoring Company contracted by City of Vista.. Found an individual using a power washer, washing a vehicle. He stated he does it a couple times a month.	I spoke with Tricon Construction. The car washed yesterday was done by a mobile car wash company. The car wash company randomly calls for service offers. I asked the Tricon to call me the next time the car wash company contacted them offering service so I could obtain their name address and offer them educational information. Left educational info with Tricon.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge and reclaim water. Follow-up Actions Monitor Actions completed monitor

GENERAL	COMPLAINT DESCRIPTION		SITE INVESTIGATION		ENFORCEMENT AND FOLLOW UP	
SW No. MISC 0506-001 Type Residential Location Address 1540 Elm Dr.	Dirt stockpiled.	Dirt stockpiled.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Verbal warning to protect piles by 9/28/05.			
			Follow-up Actions			
			Actions completed Dirt removed.			
Watershed Buena Vista Creek						
Call Date 9/20/2005 Case Closed 10/4/2005						
SW No. MISC 0506-002 Type Residential Location Address 2069 Oak Glen Rd	Black flex water pipe into brow ditch	Black flex pipe installed at the downspout of roof gutters to carry away rain water	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None - nothing out of the ordinary - all to code			
			Follow-up Actions			
			Actions completed None			
Watershed						
Call Date 10/4/2005 Case Closed 10/4/2005						
SW No. MISC 0506-004 Type Residential Location Address 1556 Elm Dr.	concrete being dumped into natural channel	Property owner was lining a channel, not a recognized flood plain according to FEMA maps. Channel runs into private soil.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required No problem noted. OK to line private channel with concrete to stabilize.			
			Follow-up Actions None			
			Actions completed None			
Watershed						
Call Date 10/5/2005 Case Closed 10/5/2005						

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-05 Type Residential Location Address Monte Vista Dr. @ Valley Dr. Watershed Buena Vista Creek Call Date 10/12/2005 Case Closed 11/5/2005	water runoff - unknown origin - crossing intersection at Monte Vista & Valley Dr.	Fire Station 2 at this location - landscape control box broken - flooding area. Also, some residential over watering. HELP brochures distributed.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge. Reduce overwatering. Follow-up Actions Photo verify Actions completed Contacted Rich Minnick, Fire Dept Stn.2, landscape control box repaired. Area dry
SW No. MISC 0506-11 Type Residential Location Address 1791 Wolverine Way Watershed Buena Vista Creek Call Date 10/13/2005 Case Closed 10/14/2005	concrete washed into curb/gutter at the corner of Beverly and Wolverine	concrete washed into curb/gutter at the corner of Beverly and Wolverine	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required clean up concrete washout. Follow-up Actions photo verify Actions completed Area clean.
SW No. MISC 0506-06 Type Residential Location Address 111Wallace Ln Watershed Buena Vista Creek Call Date 10/25/2005 Case Closed 10/26/2005	congested brow ditch	Private brow ditch with accumulation of mud.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Private brow ditch. Private issue. Clear brow ditch. Follow-up Actions None Actions completed None

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-16 Type Residential Location Address 955 Postal Way Watershed Buena Vista Creek Call Date 12/6/2005 Case Closed 12/6/2005	Dirty water entering storm drain	Dirty water entering storm drain	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge Follow-up Actions monitor Actions completed Started sweeping instead of washing driveway.
SW No. MISC 0506-18 Type Residential Location Address 1753 York View Watershed Call Date 12/7/2005 Case Closed 12/7/2005	Draining a pool in backyard off property.	Per David S. refer to County. At present time it is not illegal to drain pools	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None required Follow-up Actions None Actions completed Referred to County (County area)
SW No. MISC 0506-19 Type Residential Location Address 122 Alta Mesa Watershed Call Date 12/12/2005 Case Closed 12/14/2005	Hotline call - - Graded slope - no protection	Hotline call - - Graded slope - no protection	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Refer to Planning Dept Follow-up Actions None Actions completed None

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-20 Type Residential Location Address 731 Alta Vista Watershed Call Date 12/28/2005 Case Closed 12/29/2005	Re-landscaping. BMP's required.	Re-landscaping. BMP's required.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Install BMP's. Follow-up Actions Photo verify Actions completed BMP's in place.
SW No. MISC 0506-23 Type Residential Location Address 122 Alta Mesa Watershed Buena Vista Creek Call Date 12/29/2005 Case Closed 12/29/2005	Unprotected slopes - no BMPs	Unprotected slopes - no BMPs Spoke with property owner, in process of landscaping.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required No sediment to leave site. Suggested BMPs. Follow-up Actions Monitor Actions completed Monitor
SW No. MISC 0506-24 Type Residential Location Address various addresses Watershed Buena Vista Creek Call Date 1/2/2006 Case Closed 1/2/2006	Various residential complaints.	referred to Public Works	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Referred to Public Works Follow-up Actions Monitor Actions completed Area cleaned/cleared - Monitor

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-22 Type Residential Location Address 155 Sapphire Ln Watershed Agua Hedionda Creek Call Date 1/5/2006 Case Closed 1/9/2006	Motor oil on right-of-way	Motor oil on right-of-way	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Remove grease accumulation Follow-up Actions photo verify Actions completed Area clean and vehicle gone
SW No. MISC 0506-27 Type Residential Location Address 635 W. California St. Watershed Buena Vista Creek Call Date 1/6/2006 Case Closed 1/12/2006	leaking sprinkler	leaking sprinkler.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Repair sprinkler Follow-up Actions verify Actions completed Area Dry
SW No. MISC 0506-26 Type Residential Location Address Silvana Way Watershed Buena Vista Creek Call Date 1/6/2006 Case Closed 1/6/2006	Mud accumulation on public roadway.	Mud accumulation on public roadway.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Referred to Public Works Follow-up Actions Monitor Actions completed Area cleaned - monitor

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-29 Type Residential Location Address 1540 Elm Dr.	Numerous stockpiles - no BMPs	Numerous stockpiles - no BMPs	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Referred to Development Service. - Private property issue - possible illegal grading Follow-up Actions none Actions completed Referred to Development Services
Watershed Buena Vista Creek Call Date 1/10/2006 Case Closed 1/10/2006			
SW No. MISC 0506-33 Type Residential Location Address 1155 Warmlands Ave	Two men dumping fluid into water course.	Unfounded	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
Watershed Call Date 1/18/2006 Case Closed 1/18/2006			
SW No. MISC 0506-34 Type Residential Location Address 2192 Impanema	White paint washed into curb/gutter, flowing down the street	White paint washed into curb/gutter, flowing down the street. Spoke with property owner requesting clean-up and they need to reclaim all discharge water.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Cease discharge - reclaim - cleanup Follow-up Actions photo verify Actions completed Area clear
Watershed Buena Vista Creek Call Date 1/26/2006 Case Closed 1/26/2006			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-35 Type Residential Location Address 845 Newport Terr. Watershed Buena Vista Creek Call Date 1/30/2006 Case Closed 1/30/2006	Continual runoff of water.	Continual runoff of water. VID investigated and stated not surface water and source of water unfounded.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None. Landscape water. Spoke with property manager, reduce watering. Follow-up Actions None Actions completed None
SW No. MISC 0506-38 Type Residential Location Address 1435 Vale Terr Dr. Watershed Buena Vista Creek Call Date 2/8/2006 Case Closed 2/13/2006	Water leak	Water leak. Left Help Brochure to repair leak	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required repair leak Follow-up Actions verify Actions completed area dry - leak repaired
SW No. MISC 0506-40 Type Residential Location Address 1656 W. Knapp Dr Watershed Buena Vista Creek Call Date 2/17/2006 Case Closed 2/27/2006	Leaking water from garage	Leaking water from garage. Water coming from water softner. Left HELP flyer with homeowner to fix water softner.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Repair water softner Follow-up Actions photo verify Actions completed Water softner fixed - area clean

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-41 Type Residential Location Address Monte Vista @ York Dr. Watershed Buena Vista Creek Call Date 2/22/2006 Case Closed 2/27/2006	Excessive water runoff.	Unable to substantiate complaint after several visits to site. Unfounded (Previous case SW05-215 - HELP flyers left at homes in the area and reduce irrigation water letters sent to residences in the area.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Continue to monitor during dry season Follow-up Actions Continue to monitor during dry season Actions completed Area found dry
SW No. MISC 0506-42 Type Residential Location Address 612 California Oak Dr. Watershed Call Date 2/27/2006 Case Closed 2/27/2006	Car washing at residence	Unfounded at time of investigation. Left HELP flyer at address - no one home. Area in COUNTY	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None02/27/06
SW No. MISC 0506-47 Type Residential Location Address 509 Palmbark Watershed Buena Vista Creek Call Date 3/30/2006 Case Closed 3/30/2006	White paint discharge into gutter	White paint discharge into gutter. Unable to find origin	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Referred to Public Works for street sweeping Follow-up Actions Monitored Actions completed Cleaned

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-49 Type Residential Location Address 955 Ruby Dr Watershed Buena Vista Creek Call Date 4/4/2006 Case Closed 4/4/2006	water flowing from neighbors property onto their property	Referred to Development Services Dept. Private Issue/ Private Property	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None - Referred to Development Services Dept.
SW No. MISC 0506-51 Type Residential Location Address 1225 Gatling Watershed Buena Vista Creek Call Date 4/6/2006 Case Closed 4/12/2006	Hotline call -- Unidentified caller complains that neighbor has an inoperable vehicle parked on street with oil spill on pavement.	Inoperable vehicle parked on street with oil spill on pavement. Spoke w/ owner and he stated he was having the vehicle removed and would clean the area.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Clean the area and maintain Follow-up Actions Photo verify Actions completed Area cleaned by property owner
SW No. MISC 0506-52 Type Residential Location Address 1724 Elm Watershed Buena Vista Creek Call Date 4/27/2006 Case Closed 4/27/2006	flooding to 1324 Warmlands Ave. - watercourse alteration.	flooding to 1324 Warmlands Ave. - watercourse alteration. Private property issue - Referred to Development Services Dept	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None - Referred to Development Services Dept

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-53 Type Residential Location Address 1021 N. Citrus Ave Watershed Buena Vista Creek Call Date 5/10/2006 Case Closed 5/10/2006	broken sprinkler spewing water into roadway @ Eastcrest Apts.	broken sprinkler spewing water into roadway. Left HELP flyer at the rental office - no contact person, only phone number for messages. I reported this to the Fire Dept as Bob Gmur, Fire Inspector, stated that 16 or more units required an on-site manager. Fire Inspector, George Lucia was contacted for assistance.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Repair sprinkler. Follow-up Actions none Actions completed Repair made. Area dry
SW No. MISC 0506-59 Type Residential Location Address 1603 Foothill Dr Watershed Buena Vista Creek Call Date 6/12/2006 Case Closed 6/13/2006	Richard Stack, of VID, received a call from complainant. They are being flooded out from property above them. Apparently there was a sprinkler system that was stuck on open.	The area was damp. Property owners redirected water through piping to road below. Private property/ private issue.	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
SW No. MISC 0506-003 Type Construction Location Address 202 W. Connecticut Ave Watershed Call Date 9/29/2005 Case Closed 10/5/2005	City Inspector, Frank D., stated "no further work shall be performed on the project until a rough grading permit is issued by the City".	cease all demolition activities immediately and stabilize the site with placement of Construction BMP's per the SWPPP for inspection by Frank D. on 10/5/05	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required cease all work until permit is issued and inspection by Frank D. for BMP placements. Follow-up Actions All BMP's in place Actions completed all requests met/ Stop Work Notice released by David Chase.

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-15 Type Construction Location Address 1535 Vale Terrace	Hotline Phone Call . Stockpiling a great amount of soil. No silt fences or waddles installed and rain in forecast for Friday. Also, check with Bldg. and Eng. Depts for regulations for moving/grading more that 45/50 yards (caller believes it requires a permit issued by the City).	Referred to Development Services	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed Referred to Development Services
Watershed Call Date 11/30/2005 Case Closed 11/30/2005			
SW No. MISC 0506-50 Type Construction Location Address Ruby Dr & Ravine Rd	Lack of effective BMPs. Broken gravel bags, damaged silt fences and fiber rolls. Entrance had tracking of dirt onto sidewalk and streets.	Lack of effective BMPs. Broken gravel bags, damaged silt fences and fiber rolls. Entrance has tracking of dirt onto sidewalk and streets.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Frank D., City Inspector, stated that this has been a recurring problem and, therefore, it must be cleaned up by the end of the day or face "Stop Work Notice". Next notification to come from Stormwater Code Enforcement, which is subject to fines and penalties. Follow-up Actions Photo verify Actions completed Frank D. states that area has been cleaned and proper BMPs implemented. Monitor
Watershed Buena Vista Creek Call Date 4/10/2006 Case Closed 4/12/2006			
SW No. MISC 0506-14 Type Other Location Address 1761 Laguna Dr.	Small motor home vehicle with holding tank open and draining grey/black water per City employee	Did not see anything unusual 2 hours later (2hrs later due to employee in meeting) Unfounded.	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
Watershed Call Date 11/30/2005 Case Closed 11/30/2005			

GENERAL	COMPLAINT DESCRIPTION	SITE INVESTIGATION	ENFORCEMENT AND FOLLOW UP
SW No. MISC 0506-32 Type Other Location Address miscellaneous locations Watershed Buena Vista Creek Call Date 1/16/2006 Case Closed 1/16/2006	BMP failure on City parks	BMP failure	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Referred to Parks & Recreation Follow-up Actions None Actions completed None
SW No. MISC 0506-39 Type Other Location Address Sycamore Ave @ Shadowridge Watershed Call Date 2/14/2006 Case Closed 2/14/2006	Trash and debris in Buena Vista Creek - referred by County per complainant	No investigation - volunteers do creek clean-up bi-annually to reduce trash and debris at this location.	Enforcement Action <input type="checkbox"/> None <input checked="" type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required None Follow-up Actions None Actions completed None
SW No. MISC 0506-45 Type Other Location Address Matagual Watershed Buena Vista Creek Call Date 3/27/2006 Case Closed 3/27/2006	City sewer manhole sewer leak. Public Works crew on scene (also reported to our Public Works Dept)	Spoke with David B. of our Public Works Dept. (Wastewater Division) - nothing entered storm drain system	Enforcement Action <input checked="" type="checkbox"/> None <input type="checkbox"/> Verbal <input type="checkbox"/> NOV <input type="checkbox"/> Citation/Fine Correction Actions Required Handled by our Public Works Dept. (Wastewater Division) Follow-up Actions None Actions completed None

GENERAL**COMPLAINT DESCRIPTION****SITE INVESTIGATION****ENFORCEMENT AND FOLLOW UP****SW No.**

MISC 0506-46

Type

Other

Location AddressIntersection of
Foothill & Oak**Watershed**

Buena Vista Creek

Call Date

3/29/2006

Case Closed

3/29/2006

After recent heavy rain, dirt and silt in the street and piled up at the curb. Storm drain inlet that is unprotected on the undeveloped corner.

After recent heavy rain, dirt and silt in the street and piled up at the curb. Storm drain inlet that is unprotected on the undeveloped corner. Referred to Public Works

Enforcement Action

None



Verbal



NOV



Citation/Fine

Correction Actions Required

Monitor

Follow-up Actions

Monitor

Actions completed

Monitor especially during rainy season

Appendix E-2
2006 Dry Weather Field Screening and Analytical Monitoring Report

**CITY OF VISTA
2006 Dry Weather Field Screening
and
IC/ID Program
FINAL REPORT**

Prepared For:

City of Vista
600 Eucalyptus Avenue
Vista, California 92084

Prepared By:

Weston Solutions, Inc.
2433 Impala Drive
Carlsbad, California 92008

December 2006

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	2006 Dry Weather Monitoring Program Overview	1
1.2	Dry Weather Monitoring Program Background	1
2.0	GEOGRAPHIC SETTING	3
2.1	City of Vista Characteristics	3
2.2	Dry Weather Site Locations – Hydrologic Areas	7
2.2.1	Agua Hedionda Hydrologic Area	7
2.2.2	Buena Vista Creek Hydrologic Area	7
2.2.3	Lower San Luis Rey Hydrologic Area.....	7
3.0	METHODS	9
3.1	Monitoring Program.....	11
3.2	Field Screening Analyses.....	11
4.0	RESULTS	12
4.1	Visual Observations	12
4.1.1	Agua Hedionda	13
4.1.2	Buena Vista Creek	13
4.1.3	Lower San Luis Rey.....	13
4.2	Description of Field Screening/Analytical Chemistry Parameters	15
4.3	Field Screening Parameter Results	16
4.3.1	Agua Hedionda- Field Sites	16
4.3.2	Buena Vista Creek- Field Sites	18
4.3.3	Lower San Luis Rey- Field Sites	18
4.4	Laboratory Analyses	19
4.4.1	Agua Hedionda- Field Sites Chemistry Results.....	20
4.4.2	Buena Vista Creek- Field Sites Chemistry Results.....	21
4.5	Creek Monitoring Results	23
4.5.1	Agua Hedionda- Creek Sites.....	27
4.5.2	Buena Vista Creek- Creek Sites.....	27
4.5.3	Lower San Luis Rey- Creek Site	27
5.0	ANALYSIS OF DRY WEATHER MONITORING DATA.....	29
5.1	2006 Dry Weather Data Analysis	29
5.2	Water Quality Constituents within the City of Vista	29
5.2.1	Ammonia.....	29
5.2.2	Nitrate	29
5.2.3	Ortho-phosphate.....	30
5.2.4	MBAS	30
6.0	IC/ID INVESTIGATIONS	39
6.1	Historical Data Analysis	49

6.1.1	Methods.....	49
6.1.2	Results.....	49
7.0	CONCLUSIONS AND RECOMMENDATIONS	55
8.0	REFERENCES	57

APPENDICES

- A – Site Photos
- B – Field Data Sheets
- C – Analytical Results and Quality Assurance/Quality Control Results
- D – Historical Data

LIST OF TABLES

Table 1. Potential Discharges to Storm Drainage Systems (EPA, 1993).	2
Table 2. 2006 Dry Weather Monitoring Locations and Drainage Basin Characteristics.	8
Table 3. Field Screening Parameters, Methods, Detection Limits and Action Levels.	10
Table 4. Laboratory Analytical Parameters, Methods, Detection Limits, and Action Levels.	11
Table 5. City of Vista 2006 Dry Weather Monitoring Results – Qualitative Observations.	14
Table 6. City of Vista 2006 Dry Weather Monitoring– Field Screening Results.	16
Table 7. City of Vista 2006 - Dry Weather Monitoring Station Laboratory Analytical Results.	22
Table 8. 2006 Creek Monitoring Locations and Drainage Basin Characteristics.	26
Table 9. City of Vista 2006 Creek Monitoring Results – Qualitative Observations.	26
Table 10. City of Vista 2006 Dry Weather Monitoring–Creek Monitoring Field Parameter Results.	27
Table 11. City of Vista 2006 – Creek Site Laboratory Analytical Results.	28
Table 12. Stations with concentrations above action levels for any of six field parameters.	29
Table 13. City of Vista Dry Weather Monitoring - ICID Investigation Results.	48
Table 14. Results of Mann-Kendall Trend Analysis	50
Table 15. Recommendations for follow-up activities based on site findings from the 2006 Dry Weather Monitoring Program.	56

LIST OF FIGURES

Figure 1. City of Vista Vicinity Map and 2006 Dry Weather Field Screening Program Sampling Locations.	5
Figure 2. City of Vista Land Use Map and 2006 Dry Weather Field Screening Program Sampling Locations.	6
Figure 3. City of Vista Vicinity Map and 2006 Creek Monitoring Locations.	24
Figure 4. City of Vista Land Use Map and 2006 Creek Monitoring Locations.	25
Figure 5. Initial Field Screening Results for Ammonia.	31
Figure 6. Follow-up Field Screening Results for Ammonia.	32
Figure 7. Initial Field Screening Results for Nitrate.	33
Figure 8. Follow-up Field Screening Results for Nitrate.	34
Figure 9. Initial Field Screening Results for Ortho-phosphate.	35
Figure 10. Follow-up Field Screening Results for Ortho-phosphate.	36
Figure 11. Initial Field Screening Results for MBAS.	37
Figure 12. Follow-up Field Screening Results for MBAS.	38
Figure 13. Land Use Map Depicting the Location of 1129 Sugarbush Lane.	40
Figure 14. Evidence of groundwater seeping through conveyance pipes contributing to flows in Buena Vista Creek.	42

Figure 15. Groundwater with elevated nitrate concentrations seeping through cracks and seams in storm water conveyances in the Buena Vista Creek-HA.....	42
Figure 16. Vehicle washing contributing to dry weather flows at AC-1 on June 23, 2006.....	44
Figure 17. Site AC-1 during the follow-up investigation for bacteria on 7/19/06.....	45
Figure 18. Evidence of illicit discharge from Jensen Meat Co. on 7/19/06.....	46
Figure 19. Evidence of site cleaning and illicit discharge from Jensen Meat Co. on 7/19/06.	46
Figure 20. Site AC-1 during a post IC/ID Investigation. Water levels were considerably lower on the follow-up on 8/21/06.....	47
Figure 21. Temporal Plot of Nitrate for the Agua Hedionda-HA.....	50
Figure 22. Temporal Plot of Nitrate for the Buena Vista Creek-HA.....	51
Figure 23. Temporal Plot of Nitrate for Guajome Creek.....	52
Figure 24. Temporal Plot of Phosphate for the Agua Hedionda-HA.	52
Figure 25. Temporal Plot of Phosphate for the Buena Vista Creek-HA.	53
Figure 26. Temporal Plot of Ammonia for the Buena Vista Creek-HA.....	54
Figure 27. Temporal Plot of MBAS for the Buena Vista Creek-HA.....	54

1.0 INTRODUCTION

1.1 2006 Dry Weather Monitoring Program Overview

The Dry Weather Field Screening Program is an integral part of the National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water Permit issued to the City of Vista (City) and other Co-permittees by the San Diego Regional Water Quality Control Board. The City has implemented a comprehensive Jurisdictional Urban Runoff Management Plan (JURMP) that includes the Dry Weather Field Screening and Illicit Connections/Illicit Discharges (IC/ID) Program. In 2005, the Dry Weather Monitoring Program consisted of screening 29 sites from several drainage basins within the City. In addition, seven creek sites were monitored. Although these creek sites were not a component of the JURMP requirements, the City added these seven sites to better characterize the water quality of the City's receiving waters during dry weather conditions.

From June 19th thru July 6th, 2006, Weston Solutions, Inc. conducted the 2006 Dry Weather Field Screening Program for the City of Vista. A total of 30 field screening sites and seven creek sites were inspected during this year's program. Each site was visually inspected and field parameters were measured to identify illegal discharges and/or illicit connections. Of the 37 sites that were inspected, 15 sites had constituent concentrations at or above the dry weather action levels. A total of 14 sites, including each of the creek sites and seven field screening sites, were selected for more comprehensive laboratory analyses. These 14 sites included seven sites throughout the Agua Hedionda, Buena Vista and Monte Vista sub-watersheds and the seven creek monitoring sites on Agua Hedionda and Buena Vista Creeks. Photographs taken of each site location are included in Appendix A while field parameter measurements and site observations recorded onto data sheets from each site are provided in Appendix B.

Nitrate was above the dry weather action level more frequently than any other analyte. Other constituent concentrations that were above the dry weather action levels for the City of Vista include ammonia, ortho-phosphate, surfactants (MBAS), pH, bacteria, and temperature.

1.2 Dry Weather Monitoring Program Background

The Illicit Connection/Illegal Discharge (IC/ID) Dry Weather Field Screening Program is one of the requirements of the Municipal Storm Water NPDES Permit issued by the San Diego Regional Water Quality Control Board (RWQCB), under Order No. 2001-01. This permit requires all Co-permittees, including the City of Vista, to develop and implement programs to prevent, reduce, and eliminate inappropriate discharges of pollutants from storm water conveyances into the waters of the United States.

The purpose of the Dry Weather Screening Program is to detect illicit connections and/or illegal discharges to the storm water conveyance system. In order to accomplish this goal, strategic sites were identified to test for chronic and/or improper discharges. Chemical parameters specified by the U.S. Environmental Protection Agency (EPA) for field screening were used as indicators of potential pollution from industrial, commercial, or domestic sources. The EPA has presented the following most common non-storm water sources and has placed them into three

contamination categories: pathogenic/toxic, nuisance, and clear. The pathogenic/toxic category may cause illness upon contact or consumption and possibly impair aquatic ecosystems. The nuisance category can cause degradation of water quality and impair aquatic ecosystems. Clear water usually comes from natural sources such as springs and ground water infiltration. Table 1 displays the potential for these sources to enter the storm drainage system (EPA, 1993).

Table 1. Potential Discharges to Storm Drainage Systems (EPA, 1993).

Potential Source	Storm Drain Entry		Flow Characteristics		Contamination Category		
	Direct	Indirect	Continuous	Intermittent	Pathogenic/ Toxic	Nuisance	Clear
Residential Areas							
Sanitary Wastewater	•	○	•	○	•	○	
Septic Tank Effluent		•	•	○	•	○	
Household Chemicals	○	•		•	•		
Laundry Wastewater	•			•		•	
Excess Landscaping Watering		•		•	○	○	•
Leaking Potable Water		•	•				•
Commercial Areas							
Gasoline Filling Stations	•	○		•	•		
Vehicle Maintenance/Repair	•	○		•	•		
Laundry Wastewater	•		•	○	○	•	
Construction Site Dewatering		•	•	○		•	
Sanitary Wastewater	•	○	•		•		
Industrial Areas							
Leaking Tanks and Pipes	○	•	•	○	•		
Misc. Process Waters	•	○	•	○	•	○	○

Note: • = most likely condition; ○ = may occur; blank = not likely to occur

Discharges to the storm water conveyance system can originate from a variety of sources. The following provides a brief discussion of potential sources:

Sanitary wastewater sources:

- Sanitary wastewater (usually untreated) from improper sewerage connections, ex-filtration, or leakage
- Effluent from improperly operating, or improperly designed, nearby septic tanks

Automobile maintenance and operation sources:

- Car wash wastewater
- Radiator flushing wastewater
- Engine degreasing wastes
- Improper oil disposal
- Leaky underground storage tanks

Irrigation sources

- Lawn runoff from over-watering
- Direct spraying of impervious surfaces

Relatively clean sources:

- Infiltrating groundwater
- Water routed from pre-existing springs or streams
- Infiltrating potable water from leaking water mains

Other Sources

- Laundry wastewater
- Non-contact cooling waters
- Metal plating baths
- Dewatering of construction sites
- Washing of concrete trucks
- Sump pump discharges
- Improper disposal of household toxic substances
- Spills from roadway and other accidents
- Chemical, hazardous materials, garbage, sanitary sludge landfills and disposal sites
- Fire hydrant discharges

2.0 GEOGRAPHIC SETTING

2.1 City of Vista Characteristics

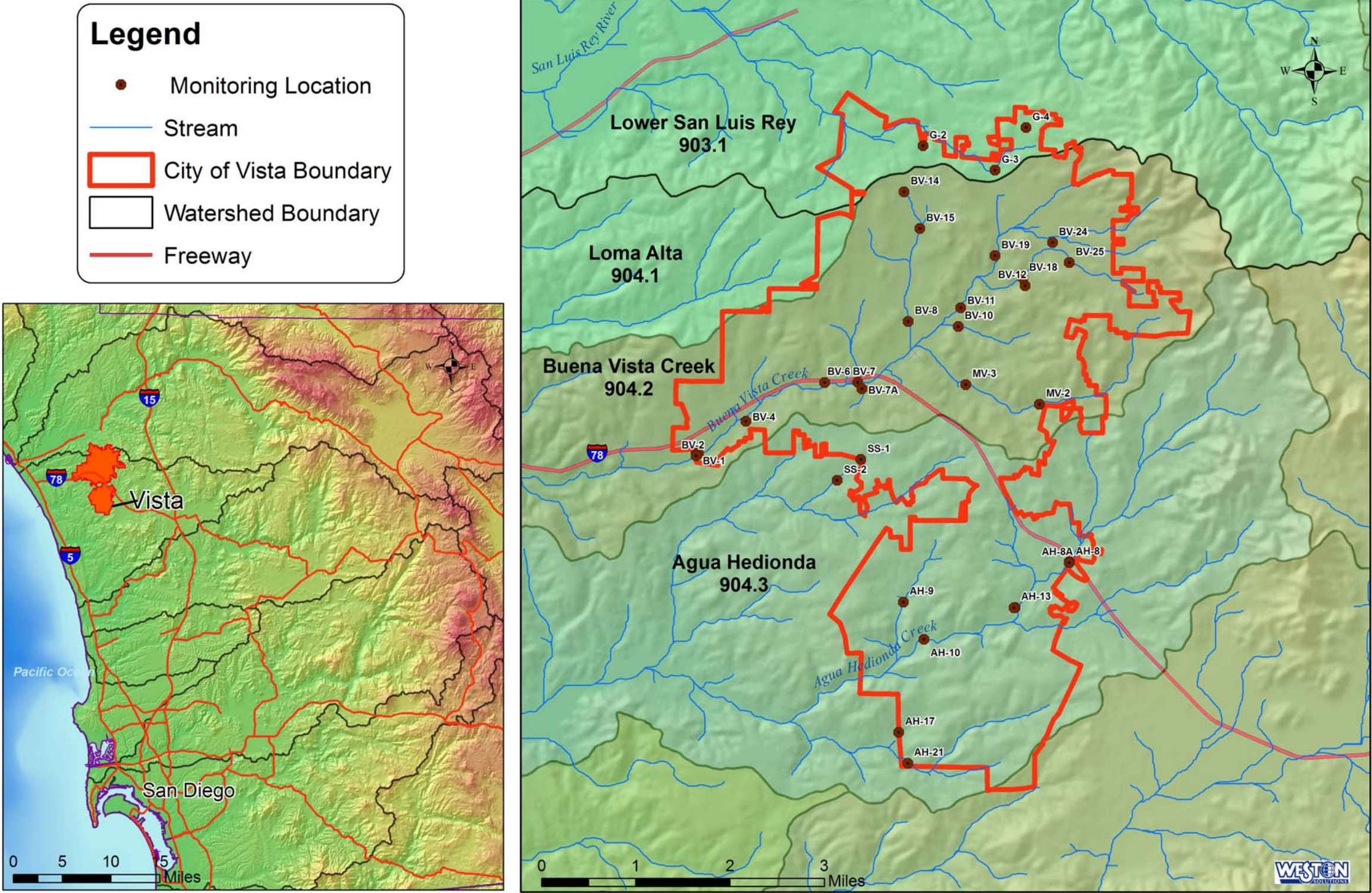
The City of Vista has a population of approximately 95,000 people and is located thirty-five miles north of downtown San Diego and seven miles east of the Pacific Ocean (Figure 1). It covers an area of approximately 18.6 square miles between Oceanside and Carlsbad to the west and San Marcos and unincorporated areas of San Diego to the east. The City's jurisdictional boundaries are contained almost entirely within the Carlsbad Hydrologic Unit (HU) - only the northernmost portion of the City lies within the San Luis Rey HU (6 percent of the City's total land area). The Carlsbad HU is divided into six Hydrologic Areas (HA), including: the Buena Vista Creek HA, the Agua Hedionda HA, the Loma Alta HA, and the San Marcos HA. Approximately 93 percent of the land within the City's jurisdiction lies within the Carlsbad HU. The Buena Vista Creek HA accounts for 55 percent of the land area, located in the northern portion of the City, while the Agua Hedionda HA accounts for 38 percent of the land area, located in the southern portion of the City. The Loma Alta HA is located in the northwestern portion of the City and contains approximately 1 percent of the City's land area while the San Marcos HA, in the southernmost portion of the City, comprises less than 1 percent of the land area.

Numerous sub-drainage areas have been identified within these HAs. These include:

- Buena Vista Creek
- North Fork Buena Vista Creek
- North Santa Fe
- Foothill/Vale Terrace
- Eucalyptus
- Monte Vista
- Sunset
- Buena
- Agua Hedionda
- Guajome Lake

Runoff generated within these drainage basins is ultimately discharged to the receiving waters of Agua Hedionda Creek, Buena Vista Creek, and Guajome Creek which are tributaries to Agua Hedionda Lagoon, Buena Vista Lagoon, and the San Luis Rey River respectively.

Land use within the City of Vista, depicted in Figure 2, is classified as 49.1 percent residential (SANDAG, 2006). The remaining land use types are categorized as transportation (14.8 percent), parks (8.6 percent), industrial (7.9 percent), vacant (7.5 percent), commercial (5.1 percent) and public facility (4.2 percent). Agricultural and commercial recreational uses each comprise less than 2 percent of the total land use.



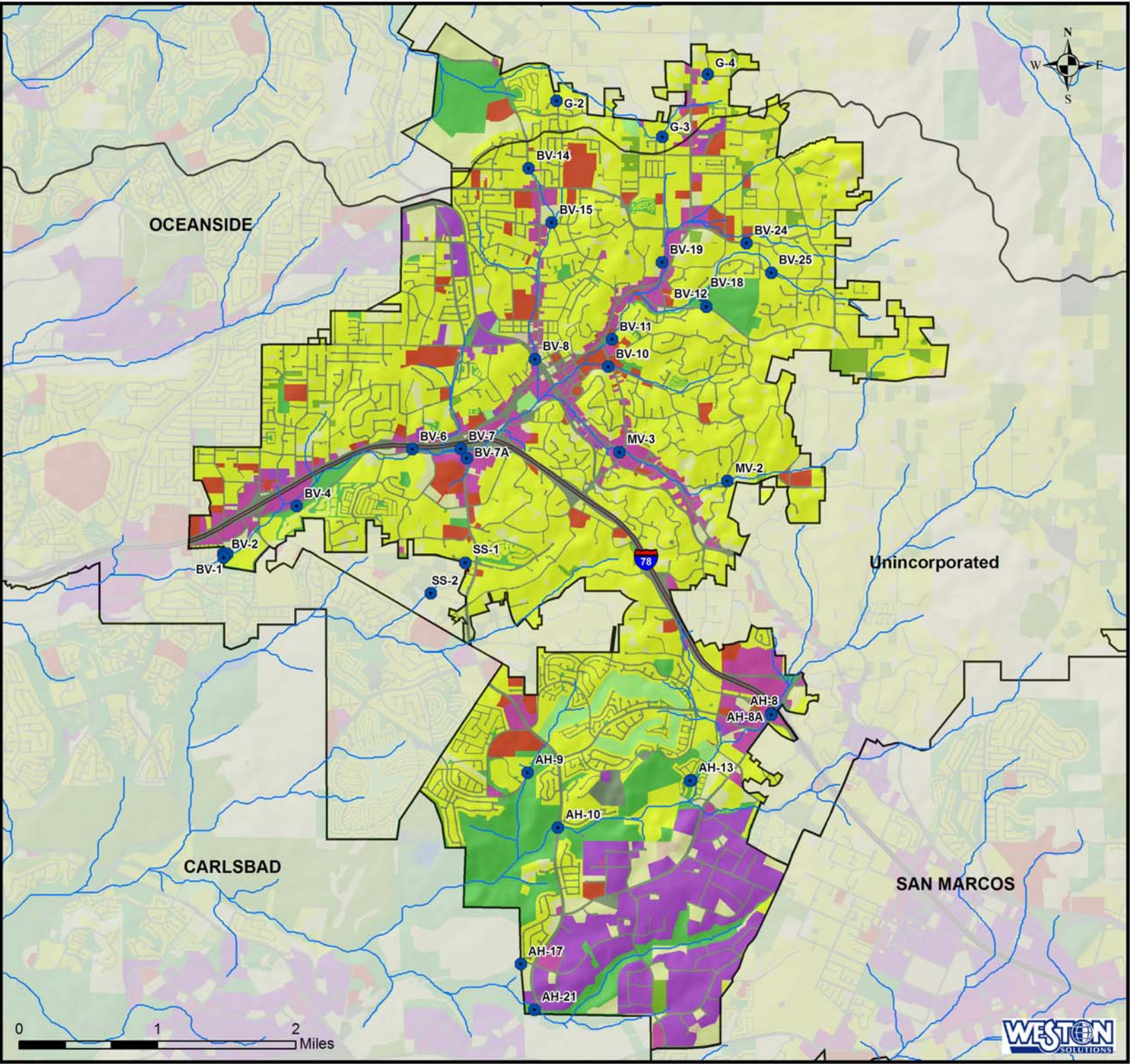
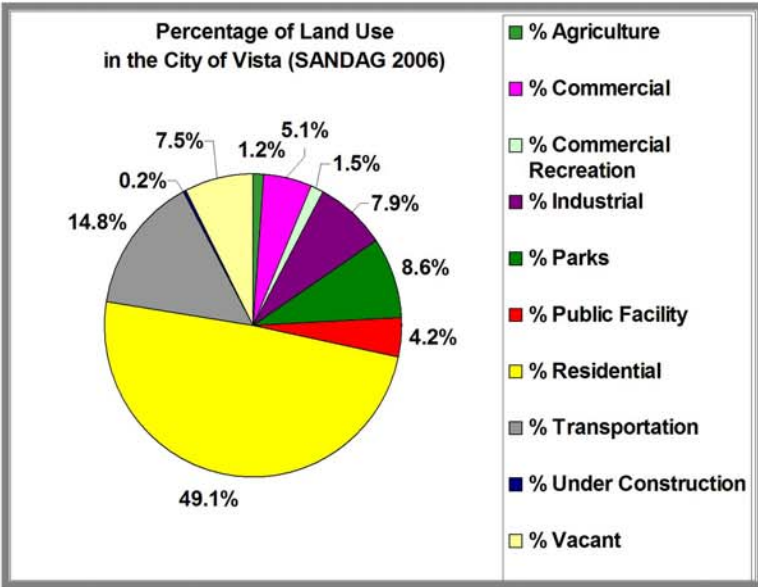
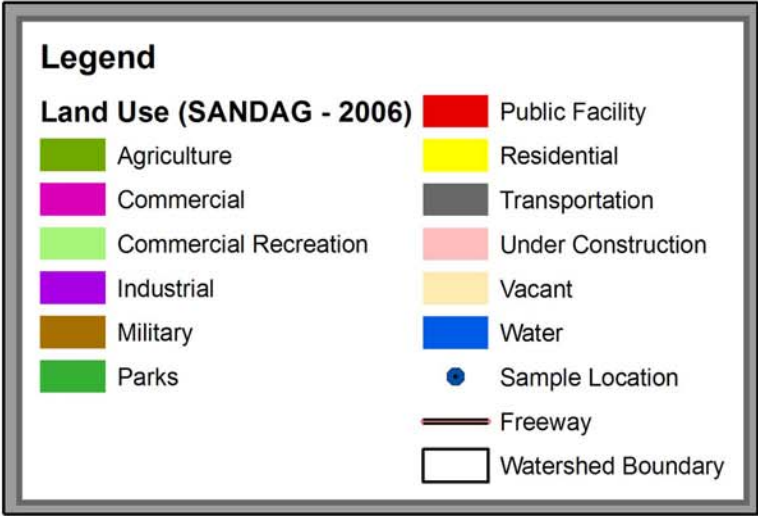


Figure 2. City of Vista Land Use Map and 2006 Dry Weather Field Screening Program Sampling Locations.

2.2 Dry Weather Site Locations – Hydrologic Areas

A review was conducted to determine whether sampling locations monitored in previous years adequately represented the numerous sub-drainage basins, land use types, and conveyance types within the City. A total of 37 sites were chosen to be monitored in 2006. The majority of the sites previously monitored in 2005 were included in the 2006 monitoring plan. The initial sampling locations during the 2006 Dry Weather Field Screening Program are depicted in Figure 1 and Figure 2. These locations include 30 storm drain or drainage sites and seven creek sites. Follow-up sample locations, when needed, occurred at the same sample location as the initial sample location. Table 2 lists all 2006 field screening sampling locations and provides geographical information such as drainage area, land use, conveyance type, and conveyance construction for each site within the Agua Hedionda, Buena Vista Creek and Lower San Luis Rey hydrologic areas. Photographs taken to document conditions at both initial and follow-up sampling locations are provided in Appendix A.

2.2.1 Agua Hedionda Hydrologic Area

As a result of the considerable variance of drainage area land use among the sampling sites, monitoring was performed at nine locations within the Agua Hedionda drainage area (Table 2). These nine sampling locations within the Agua Hedionda Hydrologic Area were located as follows: three sites were in residential/commercial areas (AH-8, AH-8A, and AH-9), three sites were in residential areas (AH-10, AH-13, SS-1), Site AH-21 was located in an industrial area within city limits, and Site AH-17 was located in a residential/industrial area. The remaining site, Site SS-2, was inadvertently located in an unincorporated area just outside of the city limits. Although data from SS-2 is included in this report, it should be noted that this sampling station was located slightly outside of the boundary line for the City of Vista and may not be relevant to the City's water quality dataset. Conveyance type and conveyance composition within the Agua Hedionda hydrologic area also varied. Of the nine conveyances, four were natural creek conveyances (AH-8, AH-10, AH-13, and SS-2) and five were concrete outlets (AH-8A, AH-9, AH-17, AH-21 and SS-1).

2.2.2 Buena Vista Creek Hydrologic Area

Drainage area land use varies with the Buena Vista Creek HA. Of the 18 site locations selected for sampling within the Buena Vista Creek drainage area, five were located in residential/commercial areas, nine were located in residential areas, two were located in commercial areas, and two were located in parks areas. Conveyances also varied by type and by composition: five conveyances were natural creeks while nine were outlets/catch basins made of concrete. Of the remaining four sites, three locations had concrete lined channels and one that had an earthen channel.

2.2.3 Lower San Luis Rey Hydrologic Area

Land use within the San Luis Rey HA varied slightly at each site location. All three of the site locations within the Lower San Luis Rey hydrologic area were in residential areas, although Site G-2 was located in a residential/commercial area. Two of the sampling locations (G-2 and G-4) were at concrete catch basins while the other sampling location (G-3) was at a concrete outlet.

Table 2. 2006 Dry Weather Monitoring Locations and Drainage Basin Characteristics.

Site ID	Sample Date	Sample Time	Hydrologic Unit	Hydrologic Area	Vista Sub-Drainage Basin	Location Description	Latitude	Longitude	Drainage Area Land Use	Conveyance Type	Conveyance Construction
Dry Weather Monitoring Stations											
AH-8	7/6/2006	1000	Carlsbad	Agua Hedionda	Buena	623 Sycamore Avenue	33.16655	-117.21545	Residential/Commercial	Natural Creek	Natural
AH-8A	7/6/2006	1030	Carlsbad	Agua Hedionda	Buena	634 Sycamore Avenue	33.16643	-117.21545	Residential/Commercial	Outlet	Concrete
AH-9	7/5/2006	1430	Carlsbad	Agua Hedionda	Agua Hedionda	Shadowridge & Antiqua Drive	33.16013	-117.24574	Residential/Commercial	Outlet	Concrete
AH-10	6/19/2006	1130	Carlsbad	Agua Hedionda	Agua Hedionda	Melrose Drive & Green Oak Drive	33.15442	-117.24188	Residential	Natural Creek	Natural
AH-13	7/5/2006	1400	Carlsbad	Agua Hedionda	Buena	Cottontail Lane & Sandy Lane	33.15948	-117.22532	Residential	Natural Creek	Natural
AH-17	7/5/2006	1505	Carlsbad	Agua Hedionda	Agua Hedionda	Faraday Drive, west end	33.14008	-117.24635	Residential/Industrial	Outlet	Concrete
AH-21	6/19/2006	1020	Carlsbad	Agua Hedionda	Agua Hedionda	Melrose Drive, south end	33.13532	-117.24462	Industrial	Outlet	Concrete
SS-1	7/6/2006	1140	Carlsbad	Agua Hedionda	Sunset	Escondido Avenue & Melrose Drive	33.18205	-117.25377	Residential	Outlet	Concrete
SS-2*	7/6/2006	1115	Carlsbad	Agua Hedionda	Sunset	1400 Sunset Drive	33.17880	-117.25803	Commercial	Natural Creek	Natural
BV-1	6/23/2006	0855	Carlsbad	Buena Vista Creek	Buena Vista Creek	4241 Tiberon Drive	33.18273	-117.28393	Residential	Outlet	Concrete
BV-2	6/23/2006	0902	Carlsbad	Buena Vista Creek	Buena Vista Creek	East of 4241 Tiberon Drive	33.18234	-117.28390	Residential	Concrete Channel	Concrete
BV-4	7/6/2006	1230	Carlsbad	Buena Vista Creek	Buena Vista Creek	1740 Hacienda Drive	33.18775	-117.27485	Residential/Commercial	Outlet	Concrete
BV-6	6/23/2006	1044	Carlsbad	Buena Vista Creek	Buena Vista Creek	Hacienda Drive & Breeze Hill Drive	33.19384	-117.26051	Residential/Commercial	Natural Creek	Natural
BV-7	6/29/2006	1445	Carlsbad	Buena Vista Creek	Buena Vista Creek	Melrose & Hacienda	33.19392	-117.25446	Commercial	Outlet	Concrete
BV-7A	7/6/2006	1215	Carlsbad	Buena Vista Creek	Buena Vista Creek	Melrose & Hacienda	33.19295	-117.25370	Commercial	Outlet	Concrete
BV-8	6/29/2006	0945	Carlsbad	Buena Vista Creek	North Santa Fe	Olive Avenue & Goeting Way	33.20338	-117.24533	Residential/Commercial	Concrete Channel	Concrete
BV-10	7/5/2006	1240	Carlsbad	Buena Vista Creek	Eucalyptus	Eucalyptus Avenue & Escondido Avenue	33.20268	-117.23618	Residential/Commercial	Concrete Channel	Concrete
BV-11	6/23/2006	1124	Carlsbad	Buena Vista Creek	N Fork Buena Vista Creek	Footbridge in Wildwood Park	33.20554	-117.23574	Residential/Commercial	Natural Creek	Natural
BV-12	7/5/2006	1230	Carlsbad	Buena Vista Creek	Foothill/Vale Terrace	Brengle Terrace Park, south side	33.20905	-117.22402	Parks	Natural Creek	Natural
BV-14	7/5/2006	1055	Carlsbad	Buena Vista Creek	North Santa Fe	North Santa Fe & Weston Circle	33.22335	-117.24632	Residential	Catch Basin	Concrete
BV-15	6/20/2006	0915	Carlsbad	Buena Vista Creek	North Santa Fe	Canenea Avenue & Citrus Avenue	33.21770	-117.24339	Residential	Outlet	Concrete
BV-18	6/29/2006	1030	Carlsbad	Buena Vista Creek	Foothill/Vale Terrace	Brengle Terrace Park, north side	33.21022	-117.22446	Parks	Natural Creek	Natural
BV-19	6/20/2006	1005	Carlsbad	Buena Vista Creek	N Fork Buena Vista Creek	1040 East Vista Way	33.21364	-117.22957	Residential	Earthen Channel	Natural
BV-24	6/29/2006	1310	Carlsbad	Buena Vista Creek	Foothill/Vale Terrace	1427 Foothill Drive	33.21573	-117.21906	Residential	Outlet	Concrete
BV-25	6/29/2006	1345	Carlsbad	Buena Vista Creek	Foothill/Vale Terrace	1661 Foothill Drive	33.21267	-117.21596	Residential	Natural Creek	Natural
MV-2	7/5/2006	1330	Carlsbad	Buena Vista Creek	Monte Vista	Monte Vista dr. & Cypress - 1073 Cypress	33.19082	-117.22118	Residential	Catch Basin	Concrete
MV-3	7/6/2006	1325	Carlsbad	Buena Vista Creek	Monte Vista	Santa Fe dr.	33.19373	-117.23468	Residential	Catch Basin	Concrete
G-2	7/6/2006	1305	San Luis Rey	Lower San Luis	Guajome	Corner of Ahmu & Goodwin	33.23046	-117.24294	Residential/Commercial	Catch Basin	Concrete
G-3	7/5/2006	1150	San Luis Rey	Lower San Luis	Guajome	Calle Jules, north end	33.22680	-117.22970	Residential	Outlet	Concrete
G-4	6/23/2006	1223	San Luis Rey	Lower San Luis	Guajome	2395 Warmlands	33.23341	-117.22410	Residential	Catch Basin	Concrete

* SS-2's location was outside of the city limits for the City of Vista

3.0 METHODS

The City's Dry Weather Analytical and Field Screening Guidance manual provides both guidelines for dry weather monitoring procedures and action levels for specific dry weather screening analytes. In accordance with this document, Weston Solutions' field scientists made an initial visit to each site. During each site visit, photographs were taken (Appendix A) and field observations and measurements recorded on data sheets (Appendix B). Specifically, field data sheets were used to record site descriptions and characteristics, flow estimations, visual observations, and field chemistry results.

If flowing or ponded water was observed during the initial visit, water quality tests were conducted. Sites which had constituent concentrations above dry weather action limits were investigated immediately. In these cases the site was revisited within a period of not less than four hours and not more than twenty-four hours. Observations and/or chemical testing were repeated during the second visit. If the site was dry on the initial visit, or if there were no constituent concentrations above the dry weather action levels, a follow-up visit was not conducted.

Samples were collected by inserting a pre-cleaned HDPE bottle into the middle of the flowing or ponded water.

Samples were tested on-site using CHEMetrics field test kits for the colorimetric analysis of ammonia, nitrate-N, orthophosphate-P, and detergents. In addition to the colorimetric analyses, the samples were also analyzed for pH, conductivity, and temperature using an Oakton Model 35630-62 pH/Conductivity/Temperature Meter. Turbidity was measured using a Hach 2100P Turbidimeter. A description of the chemical testing equipment and the Quality Assurance/Quality Control Program are provided with the chemistry and microbiological reports in Appendix C. Table 3 presents the specific ranges and detection limits of the field test kits and meters as well as the dry weather action level for each parameter.



Sampling at Site AH-13

Table 3. Field Screening Parameters, Methods, Detection Limits and Action Levels.

Parameter	Kit or Meter	Kit or Meter Range	Accuracy/ Increment	Detection Limit (mg/L)	Action Level (mg/L)
pH	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0.00 to 14.00 pH	± 0.01 pH	NA	<6.5 or >9.0
Temperature (°C)	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0 to 100 °C	± 0.5 °C	NA	Best Professional Judgment
Conductivity (mS/cm @ 25 °C)	Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter	0.0 to 19.99 mS/cm	± 1% Full Scale ± 1 Digit	NA	Best Professional Judgment
Turbidity	Hach Model 2100P Turbidimeter	0-1000 NTU	± 2% of reading plus stray light from 0-1000 NTU	NA	Best Professional Judgment
Ammonia (mg/L)	CHEMetrics K-1510	0-1.0 and 1.0-10.0 mg/L	0.1 mg/L from 0 to 0.4 mg/L 0.2 from 0.4 to 1.0 mg/L 1.0 mg/L from 1 to 10 mg/L	0.1	1.0
Nitrates (mg/L)	CHEMetrics K-6902	0 – 1.0 and 1.0-5.0 mg/L	0.1 mg/L from 0 to 0.4 mg/L 0.2 from 0.4 to 1.0 mg/L 0.5 mg/L from 1 to 5 mg/L	0.1	10.0
Detergents (mg/L)	CHEMetrics K-9400	0-3.0 mg/L	0.25 mg/L from 0 to 1 mg/L 0.5 mg/L from 1 to 3 mg/L	0.25	1.0
Phosphate (mg/L)	CHEMetrics K-8510	0 – 1.0 and 1.0-10.0 mg/L	0.1 mg/L from 0 to 0.4 mg/L 0.2 from 0.4 to 1.0 mg/L 1.0 mg/L from 1 to 10 mg/L	0.1	2.0

In accordance with the City's Dry Weather Analytical and Field Screening Guidance, a minimum of 25% of all the dry weather monitoring sites with flowing or ponded water were tested for the following parameters: total hardness, surfactants (MBAS), oil and grease, diazinon and chlorpyrifos, dissolved cadmium, dissolved copper, dissolved lead, dissolved zinc, and enterococci, total coliform, and fecal coliform bacteria (Table 4). Samples were collected from the horizontal and vertical center of the channel if possible or directly from the outfall discharge and kept clear from uncharacteristic floating debris. Because oil and grease and other petroleum hydrocarbons tend to float, oil and grease grab samples were collected at the air/water interface. Samples were properly preserved and put on ice for transport to the laboratory for analysis within appropriate holding times. Sites were selected for laboratory analysis based upon concentrations of at least one indicator parameter being elevated above Co-permittee action levels in previous monitoring years.

Table 4. Laboratory Analytical Parameters, Methods, Detection Limits, and Action Levels.

Parameter	Analytical Method	Sample Container Type	Preservative	Reporting Limit (mg/L)	Action Level (mg/L)
Total Hardness	EPA 200.7	500 mL plastic	HNO ₃	10 mg/L	-
Detergents (MBAS)	SM 5540C	500 mL plastic	None	0.5 mg/L	1.0 mg/L
Oil and Grease	EPA 413.1	1 liter glass amber	HCl	5.0 mg/L	15 mg/L
Diazinon	EPA 8141A (w)	1 liter glass amber	None	0.05 µg/L	0.5 mg/L
Chlorpyrifos	EPA 8141A (w)	1 liter glass amber	None	0.05 µg/L	0.5 mg/L
Dissolved Cadmium	EPA 6020	500 mL plastic	HNO ₃	0.005 mg/L	California Toxics Rule
Dissolved Copper	EPA 6020	500 mL plastic	HNO ₃	0.005 mg/L	California Toxics Rule
Dissolved Lead	EPA 6020	500 mL plastic	HNO ₃	0.005 mg/L	California Toxics Rule
Dissolved Zinc	EPA 6020	500 mL plastic	HNO ₃	0.02 mg/L	California Toxics Rule
Enterococci	SM 9230 B	100 mL plastic	Sodium Thiosulfate	10 MPN/100 mL	10,000 MPN/100 mL
Fecal Coliform	SM 9221 E	100 mL plastic	Sodium Thiosulfate	20 MPN/100 mL	20,000 MPN/100 mL
Total Coliform	SM 9221 B	100 mL plastic	Sodium Thiosulfate	20 MPN/100 mL	50,000 MPN/100 mL

3.1 Monitoring Program

Field sampling for the City of Vista Dry Weather Monitoring Program was conducted between June 19, 2006 and July 7, 2006. Specifically, Agua Hedionda was monitored between June 19th and July 7th, 2006, Buena Vista Creek HA was monitored from June 20th thru July 6, 2006 and monitoring of the Lower San Luis Rey HA occurred between June 23rd and July 6th, 2006.

3.2 Field Screening Analyses

All sites with flowing or ponded water were sampled for the following parameters: Temperature, pH, Conductivity, Turbidity, Ammonia, Surfactants (MBAS), Nitrate, and Ortho-phosphates.

4.0 RESULTS

The following sections provide results for the 2006 dry weather monitoring program. Visual observations made at each of the hydrologic areas are presented in Section 4.1 while field screening analyses for each hydrologic area using a water quality meter or field test kit are presented in Section 4.2. Results of chemical analyses of water samples collected from selected field stations are presented in Section 4.3. In addition to the dry weather monitoring station results described above, the City of Vista also monitors the receiving waters to provide water quality information for watershed assessment. These creek sites are presented in Section 4.5.

4.1 Visual Observations

Visual observations made at each monitoring station included water color, water clarity, floatable materials, deposits, vegetation, biology, and flow. If any particular odors were associated with the site, those observations were also recorded. A summary of the qualitative visual observations are presented in Table 5.



Irrigation and runoff at Site G-4

- **Odor:** Odor can be caused by chemicals from residential, commercial, and industrial discharges. It can also result from natural sources including decaying organic matter and microbial activity.
- **Water Color:** The apparent color of water results from dissolved substances and suspended matter. Soil runoff and decaying organic matter produce a variety of yellow, red, brown, and gray colors.
- **Water Clarity:** Water clarity is a qualitative assessment of turbidity. Turbidity refers to the cloudiness of water. Water that is turbid generally has low clarity, and may appear cloudy or opaque, while less turbid water will appear clear. Suspended solids and microscopic plankton that scatter light passing through the water cause turbidity. High turbidity can be an indicator of soil runoff or blooms of microscopic organisms due to high nutrient inputs.
- **Floatable Materials:** The type of floating matter can help identify the source of contamination, since these substances are often direct products of the source of the pollution. Trash such as plastic bags, containers, glass bottles, paper products, and styrofoam items may be indicative of contaminants as well.

- **Deposits:** Deposits can help identify sources of contamination. These substances are often the direct product of a pollution source.
- **Vegetation:** Excessive vegetation can be an indicator of elevated levels of nutrients in the runoff.
- **Biology:** The presence or absence of biological organisms such as larval and adult insects, fish, crustaceans, mollusks, and algae, can help to indicate if there is toxicity associated with the runoff.
- **Flow:** Water moving down a conveyance; in some instances flow may be ponded and stagnant pools may be present, or in cases of no flow, portions of a water body or conveyance may be dry (no water).

4.1.1 Agua Hedionda

Visual field observations were recorded at nine site locations in the Agua Hedionda hydrologic area and are presented in Table 5. Flow was observed at seven of the nine sites; two sites were ponded (SS-1 and SS-2). Site AH-9 had a musty odor while all other Agua Hedionda sites were odorless. Water color and clarity were clear at all site locations with the exception of Site AH-9, SS-1 and SS-2, which were either yellow or orange color. Site SS-2 was also observed as being slightly cloudy. In general, trash and leaf debris were the most common items observed during field monitoring; floatable debris was noted at each of the site locations. Vegetation ranged from normal to excessive among the nine sites, and at each location a varying assemblage of biological resources such as algae, insects, clams, crawfish and fish were observed.

4.1.2 Buena Vista Creek

Visual field observations were recorded during the 2006 dry weather monitoring program at eighteen sites in the Buena Vista Creek hydrologic area and are presented in Table 5. While water was observed flowing at 11 of the 18 site locations, three locations were ponded and four locations were dry. A musty odor was noted at site BV-10 and a rotten egg odor was noted at site BV-24. With the exception of sites BV-7 and BV-24 which were brown and yellow in color, respectively, coloring of the water was not observed at the remaining sites. Floatables, trash, and leaf debris were observed at nearly all of the sites. Vegetation varied widely among the sites. A varying assemblage of biological resources such as algae, insects, snails, crawfish and fish were observed at all but three sites (BV-14 T, BV-14B, and MV-2). BV-14 and MV-2 are street level curb inlets where biological resources would not be expected.

4.1.3 Lower San Luis Rey

Visual field observations were recorded during the 2006 dry weather monitoring program at three sites in the Low San Luis Rey hydrologic area and are presented in Table 5. Flow was not evident at any of the site locations. Site G-2 was dry and sites G-3 and G-4 were ponded. Site G-3 had a musty odor and the water was observed as both clear and yellow, while site G-4 smelled of sewage and the water was clear and yellow. Floatables, an oily sheen, and trash were observed at both sites. Vegetation in the Lower San Luis Rey hydrologic area varied slightly. Site G-3 had normal vegetation and site G-4 (manhole) had no vegetation. Biological resources (insects) were observed at each of the three monitoring stations.

Table 5. City of Vista 2006 Dry Weather Monitoring Results – Qualitative Observations.

Site ID	Date Sampled	Estimated Flow (gpm)	Light Conditions	Odor	Color	Clarity	Floatables	Vegetation	Biological Resources	Other/Notes
Dry Weather Monitoring Stations										
AH-8	7/6/2006	flowing	sunny	none	none	clear	trash	excessive	algae, insects, snails	
AH-8 Follow-Up	7/7/2006	flowing	partly cloudy	none	none	clear	trash	excessive	algae, insects, snails	
AH-8A	7/6/2006	flowing	sunny	none	none	clear	trash	excessive	algae, insects, snails, clams	excessive vegetation, choking outfall
AH-8A Follow-Up	7/6/2006	flowing	partly cloudy	none	none	clear	trash	excessive	algae, insects, snails, clams	
AH-9	7/5/2006	flowing	sunny	musty	yellow	clear	trash, bubbles, leaf debris	excessive	algae, insects	
AH-10	6/19/2006	flowing	sunny	none	none	clear	leaf debris/wood debris	normal	algae, ducks	
AH-13	7/5/2006	flowing	sunny	none	none	clear	trash, leaf debris, wood debris	normal	insects, snails, crawfish	turbidity high due to Horiba stirring up sediment from bottom of creek bed
AH-13 Follow-Up	7/6/2006	flowing	sunny	none	none	clear	trash, leaf debris, wood debris	normal	insects, snails, crawfish	
AH-17	7/5/2006	flowing	sunny	none	none	clear	trash, leaf debris	normal	insects, snails	
AH-21	6/19/2006	flowing	sunny	none	none	clear	leaf debris	normal	algae, insects	water being pumped into storm drain from water main
SS-1	7/6/2006	ponded	sunny	none	yellow	clear	leaf debris	normal	algae, insects, snails	
SS-1 Follow-Up	7/7/2006	ponded	sunny	none	yellow	clear	leaf debris	normal	algae, insects, snails	
SS-2	7/6/2006	ponded	sunny	none	orange	slightly cloudy	leaf debris	normal	insects, fish	
BV-1	6/23/2006	flowing	overcast	none	yellow	clear	sheen	normal	algae	
BV-1 Follow-Up	6/24/2006	flowing	overcast	none	yellow	clear	sheen	normal	algae	
BV-2	6/23/2006	flowing	overcast	none	yellow	clear	trash	limited	algae	
BV-4	7/6/2006	flowing	sunny	chemical	none	clear	Trash, Bubbles/foam, leaf debris	normal	algae, insects, fish	
BV-6	6/23/2006	ponded	sunny	none	yellow	clear	trash/sheen	normal	insects	
BV-7	6/29/2006	flowing	sunny	chemical	brown	opaque	leaf debris	normal	insects/crawfish	water was very cloudy and brown, difficult to see, only 1 ft deep
BV-7A	7/6/2006	Dry	sunny							
BV-8	6/29/2006	flowing	sunny	none	none	clear	trash, leaf debris	limited	algae	wide concrete channel with lots of algae covering bottom
BV-8 Follow-Up	9/1/2006	flowing	sunny	none	none	clear	trash, leaf debris	limited	algae, snails	
BV-10	7/5/2006	flowing	sunny	musty	none	clear	trash	limited	algae, insects	
BV-11	6/23/2006	flowing	sunny	none	none	clear	none	normal	algae, insects	
BV-12	7/5/2006	Dry	sunny							
BV-14 Top	7/5/2006	flowing	sunny	none	none	clear	none	none	none	pH and temp slightly above action level
BV-14 Top Follow-Up	7/6/2006	flowing	sunny	none	none	clear	none	none	none	
BV-14 Bottom	7/5/2006	flowing	sunny	none	yellow	clear	none	none	none	
BV-15	6/20/2006	Dry								
BV-18	6/29/2006	flowing	sunny	musty	none	clear	none	normal	insects, snails	water was clear, the meter was reading the sediment that was stirred up by our disturbance
BV-19	6/20/2006	flowing	overcast	none	none	clear	trash	excessive	insects, crawfish	site was moved 50 yards upstream due to overgrown vegetation/ possible homeless camp
BV-19 Follow-Up	6/20/2006	flowing	sunny	none	none	clear	trash	excessive	insects, crawfish	
BV-24	6/29/2006	flowing	sunny	rotten eggs	yellow	clear	bubbles/foam	normal	algae	
BV-25	6/29/2006	ponded	sunny	rotten eggs	brown	opaque	bubbles/foam/sheen	normal	insects, algae, fish	large pond with pollen sheen covering the entire surface. Strong rotten egg odor, sediment/particulates in water appeared black
BV-25 Follow-Up	6/30/2006	ponded	sunny	rotten eggs	brown	opaque	bubbles/foam/sheen	normal	insects, algae, fish	
MV-2	7/5/2006	ponded	sunny	musty	brown	slightly cloudy	trash, sheen, dead bird	none	none	water sample slightly foamy and yellowish brown in color- may be reason test kit reading is elevated.
MV-2 Follow-up	7/6/2006	ponded	sunny	rotten eggs	brown	slightly cloudy	trash, sheen, dead bird	none	none	
MV-3	7/6/2006	Dry	sunny							
G-2	7/6/2006	Dry	sunny				trash	none		
G-3	7/5/2006	ponded	sunny	musty	yellow	clear	trash, sheen	normal	insects	
G-3 Follow-Up	7/6/2006	ponded	sunny	musty	yellow	clear	trash, sheen	normal	insects	
G-4	6/23/2006	ponded	sunny	sewage	yellow	clear	bubbles/sheen, leaf debris	none	insects	
G-4 Follow-Up	6/23/2006	ponded	sunny	sewage	yellow	slightly cloudy	bubbles/foam	none	none	

4.2 Description of Field Screening/Analytical Chemistry Parameters

All sites with flowing or ponded water were sampled for the following parameters: Temperature, pH, Conductivity, Turbidity, Ammonia, Surfactants (MBAS), Nitrate, and Ortho-phosphates. A brief description of the reasons for measuring a given field parameter is provided below:

- **Temperature:** Extreme temperatures can be an indicator of commercial or industrial runoff. There is no numeric dry weather action level for temperature; Best Professional Judgment is used by the field monitoring crew to determine the need for follow-up investigations. In some cases, proximity of drainages to street levels or shallow flow in culverts may result in elevated temperatures and may not be indicative of industrial or commercial discharges.
- **pH:** Measures of pH represent the intensity of the acidity or alkalinity of water, on a scale ranging from 0.0 to 14.0, with 7.0 considered neutral. The pH of natural waters typically ranges from 6.0 to 9.0 (EPA 1993). Measurements falling outside of this range could be an indicator of commercial or industrial discharges.
- **Conductivity:** Conductivity is a measurement of a water body's capability to pass electrical current and is generally affected by the geology of the area in which the water is flowing. The presence of inorganic dissolved solids such as chloride, nitrate, sulfate, and phosphate anions or sodium, magnesium, calcium, iron, and aluminum cations will increase a water's conductivity while organic compounds such as oil, phenol, alcohol, and sugar may act to lower conductivity through water. Discharges to streams can change the conductivity depending upon their make-up. A failing sewage system would raise the conductivity because of the presence of chloride, phosphate, and nitrate.
- **Turbidity:** Turbidity refers to the clarity of a water body; high concentrations of particulate matter can modify light penetration, and through sedimentation smother benthic habitats-impacting both organisms and eggs. Fine particulate material can clog or damage sensitive gill structures, decrease an organism's resistance to disease, prevent proper egg and larval development, and potentially interfere with particle feeding activities. If light penetration is reduced significantly, reductions in photosynthesis can also result in a lower daytime release of oxygen into the water. High turbidity may be indicative of illicit discharges.
- **Ammonia:** Ammonia is commonly used in fertilizers and may be combined with other compounds such as sulfate and nitrate to form ammonia-based salts. Toxic concentrations of ammonia, as low as 0.53 mg/L of NH_3 , have been reported for various fresh water organisms (<http://www.epa.gov/waterscience/criteria/ammonia>). These toxic levels are both pH and temperature dependent and increase as both pH and temperature decrease. Generally, plants are more tolerant of ammonia than animals, and invertebrates are more tolerant than adult fish. Juvenile fish, however, have relatively low tolerances for elevated ammonia levels and may undergo developmental changes in their gill tissue, liver, and kidneys. Un-ionized ammonia should not exceed 0.05 mg/L for aquatic organisms.

- **MBAS:** Surfactants are discharged from household and commercial cleaning and laundering operations. Anionic surfactants are commonly used in detergents and account for approximately two-thirds of the total surfactants used. Anionic surfactants are commonly measured as Methylene Blue Active Substances (MBAS). Surfactant concentrations are usually below 0.1 mg/L in natural waters and range from 1.0 to 20.0 mg/L in raw sanitary wastewaters (EPA 1993). Because of their importance, detergents (surfactants) were tested in the field and in laboratory analyses.
- **Nitrate:** High nitrate levels in urban runoff may be a result of fertilizer runoff, leachate from septic tanks, sewage spills/ illicit connections, or erosion of natural deposits.
- **Orthophosphate-P:** Orthophosphate-P (reactive phosphorus) can occur naturally from local geologic conditions, and with the decay and dead animals, but may also indicate the presence of human sewage, and commercial, agricultural or residential waste water. Detergents containing phosphates can also be source of phosphate contamination found in water.

4.3 Field Screening Parameter Results

4.3.1 Agua Hedionda- Field Sites

Field screening parameters for the 2006 dry weather monitoring program are presented in Table 6. Two of the nine site locations in Agua Hedionda were above the nitrate action level of 10 mg/L. Sites AH-8 and AH-8A had nitrate concentrations of 12.0 mg/L and 15.0 mg/L, respectively. Site SS-1 had concentrations of ammonia above the action level of 1.0 during both the initial field screening and follow-up investigation (1.5 mg/L and 2.0 mg/L respectively).

Table 6. City of Vista 2006 Dry Weather Monitoring– Field Screening Results.

Site ID	Temperature (°C)	pH	Turbidity (NTU)	Conductivity (µS/cm)	Nitrate (mg/L)	Ammonia (mg/L)	Reactive Phosphorus (mg/L)	Surfactants (MBAS) (mg/L)
Dry Weather Action Level	BPJ	<6.5 or >9.0	BPJ	BPJ	10.0	1.0	2.0	1.00
Dry Weather Monitoring Stations								
AH-8	21.6	8.97	2	1.91	12.0	0.4	0.4	0.25
AH-8 Follow-Up					9.0			
AH-8A	22.4	8.7	1	2.14	15.0	0.2	0.3	0.25
AH-8A Follow-Up					12.0			
AH-9	23.5	8.44	34	2.0	0.2	0.4	1.5	0.50
AH-10	20.8	8.21	43	2.0	6.0	0.0	0.4	0.50
AH-13	23.8	8.68	308*	1.18	3.5	0.1	0.3	0.25
AH-13 Follow-Up			25					
AH-17	22.6	8.57	60	3.17	1.5	0.9	0.6	0.50
AH-21	24.9	7.93	22	0.664	0.1	0.4	0.1	0.25
SS-1	22.1	8.35	8	1.18	0.1	1.5	0.6	0.75
SS-1 Follow-Up						2.0		

Site ID	Temperature (°C)	pH	Turbidity (NTU)	Conductivity (µS/cm)	Nitrate (mg/L)	Ammonia (mg/L)	Reactive Phosphorus (mg/L)	Surfactants (MBAS) (mg/L)
SS-2	21.4	8.33	22	4.03	0.4	0.6	1.5	0.50
BV-1	19.8	8.82	5	5.75	0	0.4	0.3	3.0
BV-1 Follow-Up								1.0
BV-2	20.2	8.68	4	2.03	1.0	0.2	0.15	0.25
BV-4	24	8.94	12	1.72	0.3	0.3	0.6	0.50
BV-6	21.1	8.60	30	1.67	3.0	0.2	0.4	0.25
BV-7	24.3	8.63	241	1.72	2.4	0.3	0.3	0.25
BV-7A	DRY							
BV-8	24.7	9.46	3	1.43	0.8	0.0	0.2	0.25
BV-8 Follow-Up		7.73						
BV-10	25.8	8.73	33	1.77	7.5	0.1	0.2	0.25
BV-11	20	8.75	0	1.88	5.5	0.2	0.2	0.25
BV-12	DRY							
BV-14-T	30.2	9.11	0	2.04	0.4	0.1	0.0	0.25
BV-14-T Follow-Up	29.8	9.11						
BV-14-B	25.3	8.55	2	3.58	0.8	0.4	0.0	0.50
BV-15	DRY							
BV-18	20.3	8.44	152*	1.88	9.0	0.1	0.2	0.20
BV-19	20.6	8.67	3	1.68	15.0	0.1	0.1	0.50
BV-19 Follow-Up					37.5			
BV-24	27.6**	8.92	3	1.8	9.0	0.2	0.6	0.50
BV-25	31.9	9.37	196	1.89	0	0.6	0.0	0.75
BV-25 Follow-up	32.4	8.28						
MV-2	27.0	8.84	133*	1.15	0.4	4.0***	3.0	5
MV-2 Follow-up			not turbid			Not measured	6.0	Not measured****
MV-3	DRY							
G-2	DRY							
G-3	24.3	8.37	63	2.1	0.2	1.5	1	0.75
G-3 Follow-Up						1.5		
G-4	22.8	8.70	51	0.855	0	1.0	4.0	1.50
G-4 Follow-Up						1.5	3.5	0.8 - 1.0**

Yellow highlighting indicates value surpassed dry weather action level

Gray highlighting indicates site was dry

* Interference from sampling, flow was clear

**Sample interference from equipment

***Sample color was yellowish brown, likely an interference since test kit colorimetric reading is yellow.

Blank cell indicates parameter not analyzed (only parameters with results above action levels are followed up).

**** Analysis was not performed as site was ponded and conditions were unchanged. Site was recommended for cleaning.

4.3.2 Buena Vista Creek- Field Sites



Buena Vista Creek – BV-10

Field screening parameters for the 2006 dry weather monitoring program are presented in Table 6. Five of 18 site locations sampled in the Buena Vista Creek HA had results above the dry weather action levels for various field screening parameters. Site BV-1 had a Surfactant (MBAS) concentration of 3.0 mg/L and was above the dry weather action level of 1.0 mg/L. The follow-up test result was 1.0 mg/L. Site BV-8 (pH value of 9.46) was above the dry weather action level pH value (>9.0). The follow up test result (7.73) was within the acceptable range for pH. Elevated temperatures (30.2°C initially and a follow up result of 29.8°C) and pH (9.11 and a follow up result of 9.11) were measured at site BV-14. Site BV-19 had nitrate concentrations (15.0 mg/L in initial testing, and 37.5 mg/L in follow up testing) above the dry weather action level (10.0 mg/L). Temperatures of 31.9°C in initial testing and 32.4°C in follow up testing were measured at BV-25. Site BV-25 also had an elevated

initial pH value of 9.37; however, pH was within the acceptable range in follow up testing.

4.3.3 Lower San Luis Rey- Field Sites

Three site locations within the San Luis Rey HA were scheduled for field sampling; however, Site G-2 was dry and thus was unable to be tested. Site G-3 had an initial ammonia concentration of 1.5 mg/L and a follow up concentration of 1.0 mg/L while site G-4 had initial and follow up ammonia concentrations of 1.0 mg/L, respectively (Table 6). Site G-4 also was above the dry weather action level for phosphate and MBAS. Initial and follow up phosphate concentrations were measured at 4.0 mg/L while initial and follow up MBAS measurements were 1.5 mg/L and 1.0 mg/L, respectively (Table 6).

4.4 Laboratory Analyses

Laboratory analyses were conducted on samples collected at six dry weather sites and seven creek monitoring sites. A brief description of the chemical analytes selected for laboratory analysis is provided below.

- **Oil and Grease:** The oil and grease analysis is applicable for the determination of hydrocarbons, vegetable oils, animal fats, waxes, soaps, grease, and related matter. Discharges may cause surface films and shoreline deposits leading to environmental degradation. The Co-permittee action level for oil and grease is 15 mg/L.
- **Diazinon:** Diazinon is an organophosphate insecticide. The retail sale of diazinon was banned in 2005 by EPA. It kills insects, as well as other organisms through its effect on the nervous system. Diazinon is moderately persistent in the environment and, in high enough concentrations, can be toxic to birds, mammals, honeybees, and other beneficial insects. It is also toxic to freshwater fish and invertebrates. The Co-permittee action level for diazinon is 0.5 µg/L.
- **Chlorpyrifos:** Chlorpyrifos is an organophosphate insecticide that is currently being phased out by the US EPA. Over the years, chlorpyrifos has been the most widely used insecticide in the United States, and is still used in agriculture on a variety of crops. In private residences, chlorpyrifos has been used as a termiticide, mosquitocide, and lawn treatment, in addition to other domestic uses. It absorbs readily to soil particles and therefore is not highly mobile in soil. Chlorpyrifos presents a high risk to birds, fish and mammals, and an even a higher risk to aquatic invertebrates. The Co-permittee action level for chlorpyrifos is 0.5 µg/L.
- **Total Hardness:** Hardness refers to the presence of particular minerals in water. The hardness of water can vary considerably between locations. Natural sources of hardness are limestones, which are dissolved by percolating rainwater made acid by dissolved carbon dioxide. Hardness results are used in determining California Toxics Rule water quality objectives for dissolved metals.
- **Dissolved Cadmium:** Cadmium occurs in sulfide minerals that also contain zinc, lead, or copper and is usually associated with zinc at a ratio of about one part cadmium to 500 parts zinc in most rocks and soils. Commercially it is used in electroplating, batteries, paint pigments, and alloys with various other metals. Guidelines for maximum cadmium concentrations in natural water are linked to the hardness or alkalinity of the water (i.e., the softer the water, the lower the permitted level of cadmium). It is considered nonessential for plants and considered extremely toxic to animals. In animals, cadmium tends to accumulate and disrupt the functioning of organs such as the kidneys and liver. The average abundance of cadmium in streams is 1 µg/L and in groundwaters is from 1 to 10 µg/L. The U.S. EPA primary drinking water standard or maximum contaminant level (MCL) is 10 µg/L (Standard Methods, 1998).

- **Dissolved Copper:** Copper occurs in its native state, but is also found in many minerals. It is widely used in electrical wiring, plumbing, roofing, various alloys, pigments, cooking utensils, brake pads, and the chemical industry. Copper is considered an essential trace element for plants and animals. The average abundance of copper in streams is 4 to 12 µg/L and in groundwater is less than 0.1 mg/L. The U.S. EPA drinking water 90th percentile action level is 1.3 mg/L (Standard Methods, 1998).
 - **Dissolved Lead:** Lead is normally found in the mineral galena. It is commonly used in batteries, ammunition, solder, piping, pigments, insecticides, and some alloys. It is nonessential for plants; in animals it is toxic by ingestion and is a cumulative poison. The average abundance of lead in streams is 3 µg/L; lead concentrations in groundwater are generally less than 0.1 mg/L. The U.S. EPA drinking water 90th percentile action level is 15µg/L.
 - **Dissolved Zinc:** Zinc occurs in its native state and is used in many alloys such as brass and bronze. It is also used in batteries, fungicides and pigments. It is an essential growth element for plants and animals, but at elevated levels it is toxic to some species of aquatic life. The average abundance of zinc in streams is 20 µg/L and in groundwater is less than 0.1 mg/L. The U.S. EPA secondary drinking water standard MCL is 5 mg/L.
 - **Bacteria:** Bacteria (specifically total coliform, fecal coliform, and enterococcus) are commonly found in human and animal feces. They are generally not harmful themselves, but they do indicate the possible presence of pathogenic bacteria, viruses, and protozoans that also live in human and animal digestive systems. Total Coliform, fecal coliform, and enterococci bacteria are common test organisms for water quality sampling.
 - **Total Coliforms:** Total coliforms are a group of bacteria that can occur in human feces, but can also be present in animal manure, soil, and other places outside the human body. Elevated total coliform concentrations may also be a result of regrowth in warm, ponded areas with sufficient organic matter that may act as an amplifier.
- Fecal Coliforms:** Fecal coliforms are a subset of total coliforms and are more indicative of the presence of animal or human waste.
- **Enterococci:** Enterococci are a subgroup within the fecal streptococcus group and are better suited for survivability in salt water. They are generally found in the digestive systems of humans and other warm-blooded mammals.

4.4.1 Agua Hedionda- Field Sites Chemistry Results

Chemistry results from water samples collected from Agua Hedionda field site locations AH-10 and AH-21 and are provided in Table 7. All chemistry and bacteria concentrations from these sites were below the dry weather action levels. Dissolved zinc was detected at site AH-21 (0.056 mg/L) but was below the hardness based CTR action level (0.2 mg/L).

4.4.2 Buena Vista Creek- Field Sites Chemistry Results

Although five field locations (BV-6, BV-8, BV-15, BV-18, and BV-19) were scheduled for analytical chemistry analyses, site BV-15 was dry and was not sampled (Table 7). Samples collected at sites BV-6 and BV-8 were above the dry weather action level for total coliforms, while site BV-8 was also above the action level for fecal coliforms. Initial total coliform concentrations at site BV-6 were measured at 50,000 MPN/100mL; follow up concentrations were measured at 60,000 MPN/100mL. At site BV-8, total coliforms were initially measured at 60,000 MPN/100mL, but were below the action level during the follow up visit (23,000 MPN/100mL). Site BV-8 also was above the action level for fecal coliform. The follow up result for fecal coliforms at site BV-8 was below the dry weather action level. All other chemistry and bacteria concentrations from these sites were below the dry weather action levels.

Table 7. City of Vista 2006 - Dry Weather Monitoring Station Laboratory Analytical Results.

Analytes	MRL		Dry Weather Monitoring Stations								
		Sample Date:	6/19/2006	6/19/2006	6/27/2006	7/19/2006	6/29/2006	7/19/2006	N/A	6/29/2006	6/20/2006
		Dry Weather Action Level	AH-10	AH-21	BV-6	BV-6 Follow up	BV-8	BV-8 Follow up	BV-15	BV-18	BV-19
Conventional constituents											
MBAS (surfactants) (mg/L)	0.5	1	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Oil and Grease (mg/L)	1	15	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Total Hardness (mg/L CaCO3)	10	N/A	726	188	538	not measured	431	not measured	N/A	818	696
Dissolved Metals (ug/L) (Hardness Dependent)											
Dissolved Cadmium	0.005	CTR	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Dissolved Copper	0.005	CTR	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Dissolved Lead	0.005	CTR	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Dissolved Zinc	0.02	CTR	ND	0.056	ND	not measured	ND	not measured	N/A	ND	ND
Organophosphate Pesticides (ug/L)											
Diazinon	0.05	0.5	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Chlorpyrifos	0.05	0.5	ND	ND	ND	not measured	ND	not measured	N/A	ND	ND
Bacteria (MPN/100mL)											
Total Coliform	20	50,000	5,000	230	50,000	60,000	60,000	23,000	N/A	5,000	7,000
Fecal Coliform	20	20,000	170	20	300	3,000	50,000	2,300	N/A	700	130
Enterococcus	10	10,000	800	40	1,100	not measured	3,000	not measured	N/A	1,300	358E

"N/A" - Not analyzed (site was dry)
CTR-California Toxics Rule

4.5 Creek Monitoring Results

In addition to the dry weather monitoring station results described above, the City of Vista also monitors the receiving waters as part of the watershed program. The creek sites are monitored to provide dry weather receiving water data. The creek monitoring locations are depicted in Figure 3 and Figure 4. The creek monitoring locations and characteristics are also presented in Table 8. Qualitative site observations from the creek site monitoring are presented in Table 9. Field parameter monitoring results are presented below in Table 10.

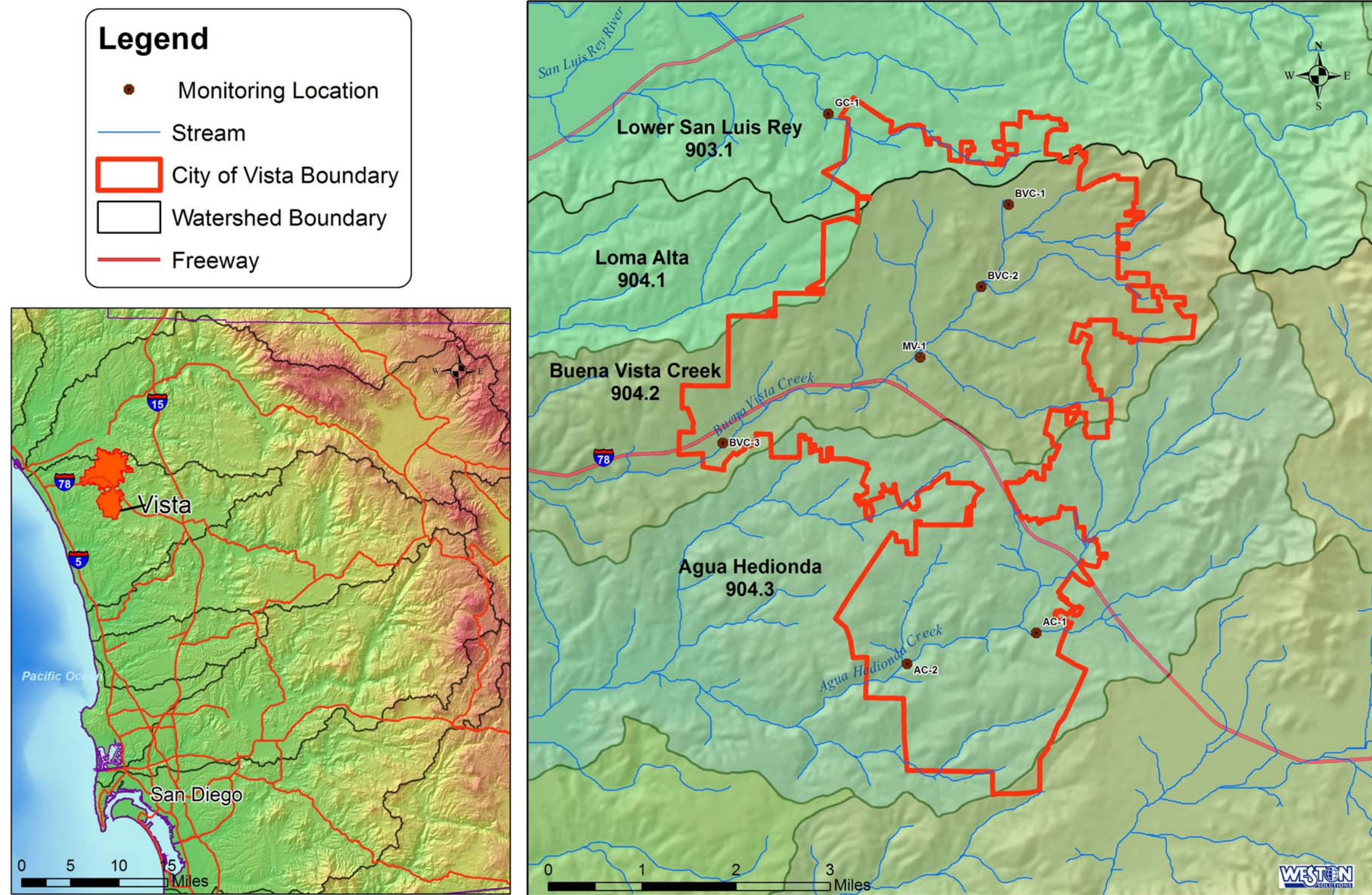


Figure 3. City of Vista Vicinity Map and 2006 Creek Monitoring Locations.

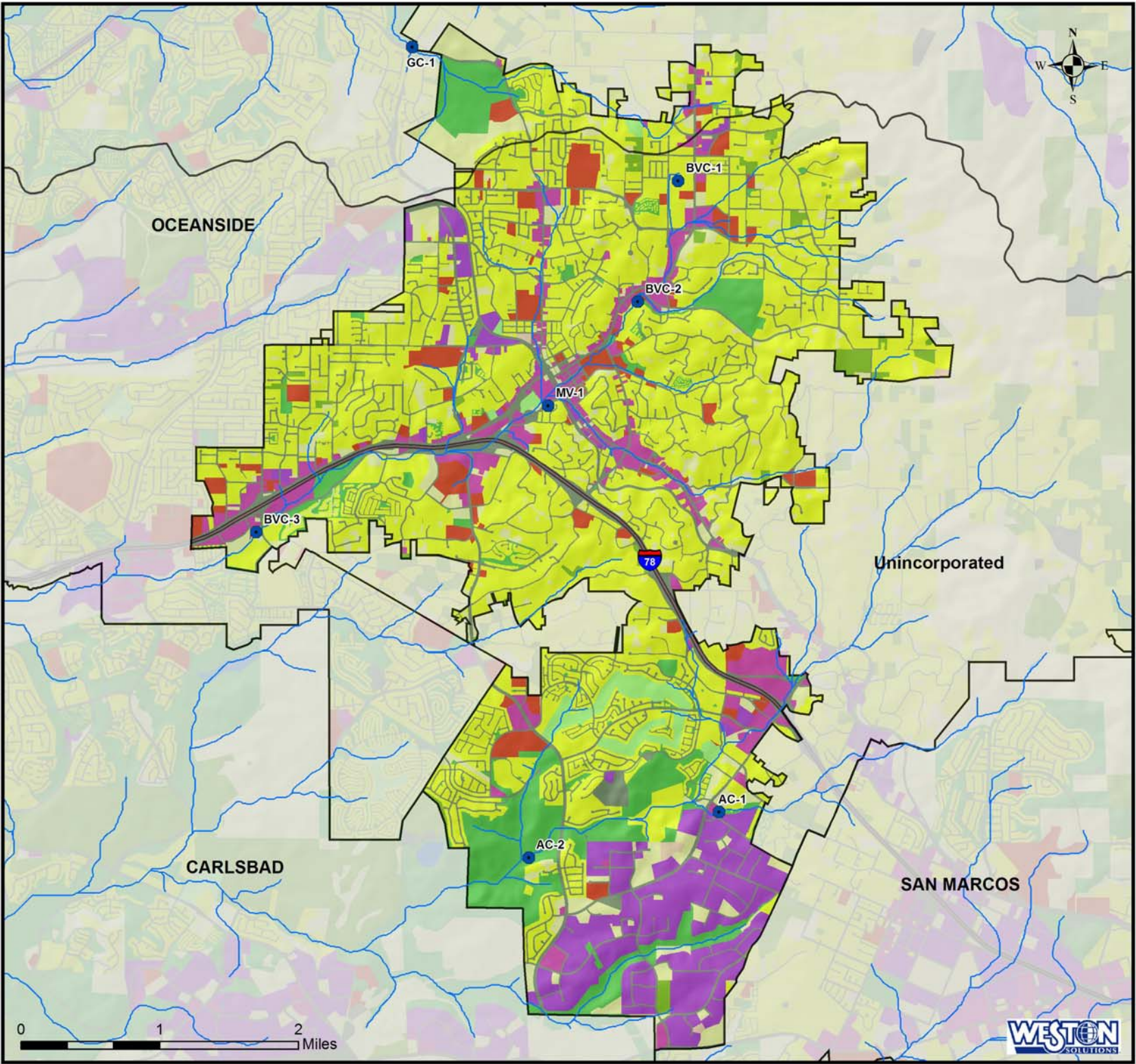
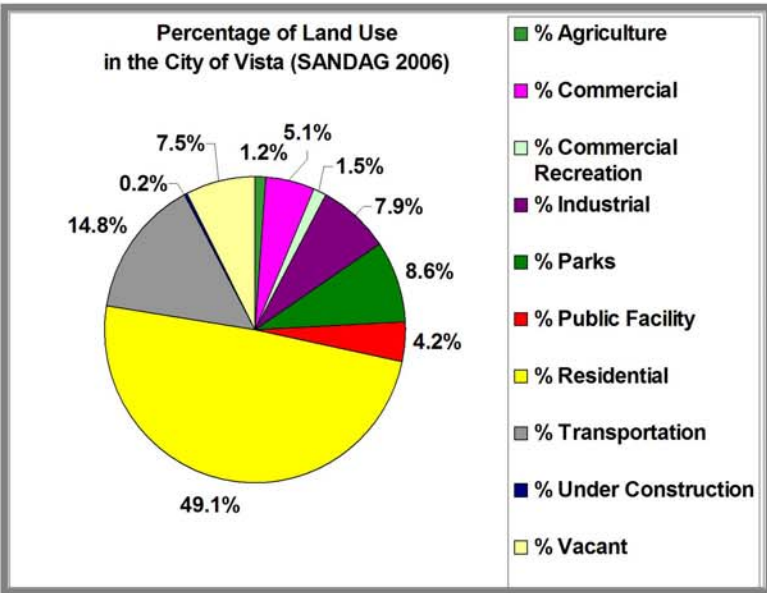
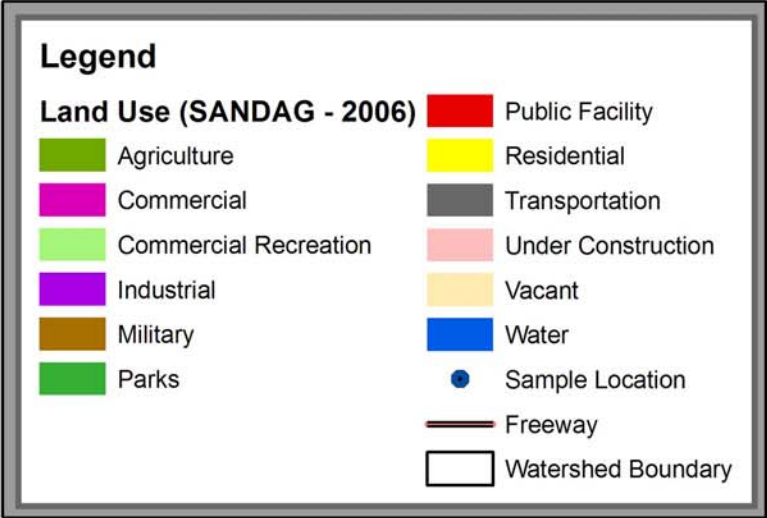


Figure 4. City of Vista Land Use Map and 2006 Creek Monitoring Locations.

Table 8. 2006 Creek Monitoring Locations and Drainage Basin Characteristics.

Site ID	Sample Date	Sample Time	Hydrologic Unit	Hydrologic Area	Vista Sub-Drainage Basin	Location Description	Latitude	Longitude	Drainage Area Land Use	Conveyance Type	Conveyance Construction
Creek Monitoring Sites											
AC-1	6/19/2006	1355	Carlsbad	Agua Hedionda	Agua Hedionda	Green Oak Road, east end, south of Yellow Gate	33.15623	-117.22232	Commercial	Earthen Channel	Natural
AC-2	6/19/2006	1250	Carlsbad	Agua Hedionda	Agua Hedionda	Junction of Agua Hedionda Creek and North Branch	33.15128	-117.24593	Open	Natural Creek	Natural
BVC-1	6/20/2006	0930	Carlsbad	Buena Vista Creek	N Fork Buena Vista Creek	East Vista Way, NW corner of Vista Royalodge Trailer Park	33.22224	-117.22814	Residential	Concrete Channel	Concrete
BVC-2	6/20/2006	1140	Carlsbad	Buena Vista Creek	Foothill/Vale Terrace	East Vista Way & Frances Drive	33.20954	-117.23303	Commercial	Natural Creek	Natural
BVC-3	6/23/2006	0910	Carlsbad	Buena Vista Creek	Buena Vista Creek	Emerald Drive Bridge & Via Center	33.18504	-117.28019	Commercial	Natural Creek	Natural
GC-1	6/20/06	0825	Carlsbad	Lower San Luis Rey	Guajome Lake	Melrose and Rancho Sante Fe	33.23601	-117.26174	Residential/Agricultural	Natural Creek	Natural
MV-1	6/20/2006	1100	Carlsbad	Buena Vista Creek	Monte Vista	Recreation Drive, east end near Water Park	33.19857	-117.24406	Residential/Commercial	Concrete Channel	Concrete

Table 9. City of Vista 2006 Creek Monitoring Results – Qualitative Observations.

Site ID	Date Sampled	Estimated Flow (gpm)	Light Conditions	Odor	Color	Clarity	Floatables	Vegetation	Biological Resources	Other/Notes
Creek Monitoring Sites										
AC-1	6/19/2006	ponded	sunny	musty	none	clear	trash/sheen/leaf debris/plastic/styrofoam	normal	algae, insects, crawfish	
AC-1 Follow-Up	6/20/2006	ponded	sunny	musty	none	clear	trash/sheen/leaf debris/plastic/styrofoam	normal	algae, insects, crawfish	
AC-2	6/19/2006	flowing	sunny	none	none	clear	leaf debris	normal	algae, insects, fish	
BVC-1	6/20/2006	flowing	overcast	none	none	clear	none	none	algae, insects	
BVC-1 Follow-Up	6/20/2006	flowing	sunny	none	none	clear	none	none	algae, insects	
BVC-2	6/20/2006	flowing	sunny	none	none	clear	leaf debris	normal	algae, insects, crawfish	
BVC-2 Follow-Up	6/20/2006	flowing	sunny	none	none	clear	leaf debris	normal	algae, insects, crawfish	
BVC-3	6/23/2006	flowing	overcast	none	yellow	clear	leaf debris	normal	algae, insects	
BVC-3	6/27/2006	flowing	overcast	none	none	clear	none	normal	Algae, Insects	
MV-1	6/20/2006	flowing	partly cloudy	none	none	clear	trash, leaf debris	none	Algae, Insects	
MV-1 Follow-Up	6/20/2006	flowing	sunny	none	none	clear	trash, leaf debris	none	Algae, Insects	
GC-1	6/20/2006	flowing	overcast	none	none	clear	trash/bubbles/foam	normal	insects, snails, crawfish	

Table 10. City of Vista 2006 Dry Weather Monitoring--Creek Monitoring Field Parameter Results.

Site ID	Temperature (°C)	pH	Turbidity (NTU)	Conductivity (µS/cm)	Nitrate (mg/L)	Ammonia (mg/L)	Reactive Phosphorus (mg/L)	Surfactants (MBAS) (mg/L)
Dry Weather Action Level	BPJ	<6.5 or >9.0	BPJ	BPJ	10.0	1.0	2.0	1.00
Creek Monitoring Sites								
AC-1	22.7	8.41	26	4.07	0.2	8.0	0.4	0.50
AC-1 Follow-Up						7.0		
AC-2	21.7	8.47	2	1.99	3.8	0.2	0.5	0.50
BVC-1	22	8.45	0	1.85	12.0	0.3	0.2	0.50
BVC-1 Follow-Up					9.75			
BVC-2	20.6	8.56	26	1.84	13.5	0.1	0.3	0.25
BVC-2 Follow-Up					10.5			
BVC-3	21.3	8.31	5	1.82	2.0	0.2	0.2	0.25
MV-1	22.6	8.89	5	1.83	15.0	0.1	0.1	0.30
MV-1 Follow-Up					15.0			
GC-1	19.4	8.5	13	2.26	0.8	0.4	0.3	0.70

Blank cell indicates parameter not analyzed (only parameters with results above action levels are followed up).

4.5.1 Agua Hedionda- Creek Sites

Field screening parameter results for the 2006 dry weather monitoring program are presented in Table 10. Site locations AC-1 and AC-2 were both sampled for field screening parameters; Site AC-1 had an ammonia concentration of 8.0 mg/L. The dry weather action level for ammonia is 1.0 mg/L. Site AC-1 had an ammonia follow up test result of 7.0 mg/L. Sites AC-1 and AC-2 were sampled as analytical site locations. Analytical chemistry results are presented in Table 11. Site AC-1 had total coliform results above the dry weather action level during both the initial and follow up test results. Site AC-1 also had fecal coliform concentrations above the dry weather action level during the follow up test result. This was further described in the IC/ID section of this report and is believed to be an isolated occurrence.

4.5.2 Buena Vista Creek- Creek Sites

Creek monitoring sites located in the Buena Vista HA include sites BVC-1, BVC-2, BVC-3 and MV-1. Nitrate concentrations were above the nitrate action level at sites BVC-1, BVC-2, and MV-1, ranging from 12.0 mg/L to 15.0 mg/L. Nitrate concentrations in follow-up visits remained above the action level for sites BVC-2 and MV-1. No other parameters were detected above action levels at creek sites within the Buena Vista Creek HA. All chemistry and microbiology laboratory results were below the action levels in the Buena Vista Creek sites (Table 11).

4.5.3 Lower San Luis Rey- Creek Site

Site GC-1 was the only Creek Site that was monitored in the Lower San Luis Rey HA. Water collected from GC-1 was below action levels for each of the analyzed parameters and for the chemistry and microbiology laboratory results (Table 10 and Table 11).

Table 11. City of Vista 2006 – Creek Site Laboratory Analytical Results.

Analytes	MRL		Dry Weather Monitoring Stations							
		Sample Date:	6/19/2006	7/19/2006	6/19/2006	6/20/2006	6/20/2006	6/27/2006	6/20/2006	6/20/2006
		Dry Weather Action Level	AC-1	AC-1 Follow up	AC-2	BVC-1	BVC-2	BVC-3	GC-1	MV-1
Conventional constituents										
MBAS (surfactants) (mg/L)	0.5	1	ND	ND	ND	ND	ND	ND	ND	ND
Oil and Grease (mg/L)	1	15	5	ND	ND	ND	ND	ND	ND	ND
Total Hardness (mg/L CaCO3)	10	N/A	1410	not measured	709	739	650	602	757	736
Dissolved Metals (ug/L) (Hardness Dependent)										
Dissolved Cadmium	0.005	CTR	ND	not measured	ND	ND	ND	ND	ND	ND
Dissolved Copper	0.005	CTR	ND	not measured	ND	ND	ND	ND	ND	ND
Dissolved Lead	0.005	CTR	ND	not measured	ND	ND	ND	ND	ND	ND
Dissolved Zinc	0.02	CTR	0.047	not measured	ND	ND	ND	ND	ND	ND
Organophosphate Pesticides (ug/L)										
Diazinon	0.05	0.5	ND	not measured	ND	ND	ND	ND	ND	ND
Chlorpyrifos	0.05	0.5	ND	not measured	ND	ND	ND	ND	ND	ND
Bacteria (MPN/100mL)										
Total Coliform	20	50,000	70,000	3,000,000	1,100	30,000	3,000	3,000	5,000	5,000
Fecal Coliform	20	20,000	1,300	80,000	40	800	170	500	300	300
Enterococcus	10	10,000	5,000	not measured	300	2,300	500	300	750E	3,000

CTR - California Toxics Rule

5.0 ANALYSIS OF DRY WEATHER MONITORING DATA

5.1 2006 Dry Weather Data Analysis

During the 2006 Dry Weather Screening Program a total of 17 sample results were above the dry weather action levels. These same sites were then re-tested between four hours and twenty-four hours later. Sites which had elevated concentrations above action levels during initial field testing are listed in Table 12.

Table 12. Stations with concentrations above action levels for any of six field parameters.

	Analyte in which concentration was above the dry action level				
	Nitrate	Ammonia	Phosphate	MBAS	Temperature/ pH
Field Station	AH-8 AH-8A BV-19	SS-1 G-3 G-4 MV-2	G-4 MV-2	BV-1 G-4	BV-14 BV-25

Six sites had nitrate levels above the dry weather action level. Five sites had elevated ammonia concentrations. Sites G-4 and MV-2 were the only sites with phosphate concentrations above the action level. Sites BV-1 and G-4 had concentrations of detergents (MBAS) above the dry weather action levels. Elevated levels of Temperature/pH at sites BV-14 and BV-25 are likely a result of shallow flow in conveyances near the street level and ponded conditions respectively.

5.2 Water Quality Constituents within the City of Vista

Figures 5 through 12 illustrate the results of initial and follow-up field inspections to provide an easy visual comparison of chemical test results across all sites. These figures show that the concentrations of some indicator parameters were above dry weather action levels at certain sites.

5.2.1 Ammonia

Ammonia concentrations were above the dry weather action level of 1.0 mg/L at four sample locations (Figure 5). In follow-up investigations, ammonia levels remained above action level criteria at sites G-3, G-4, and SS-1 (Figure 6).

5.2.2 Nitrate

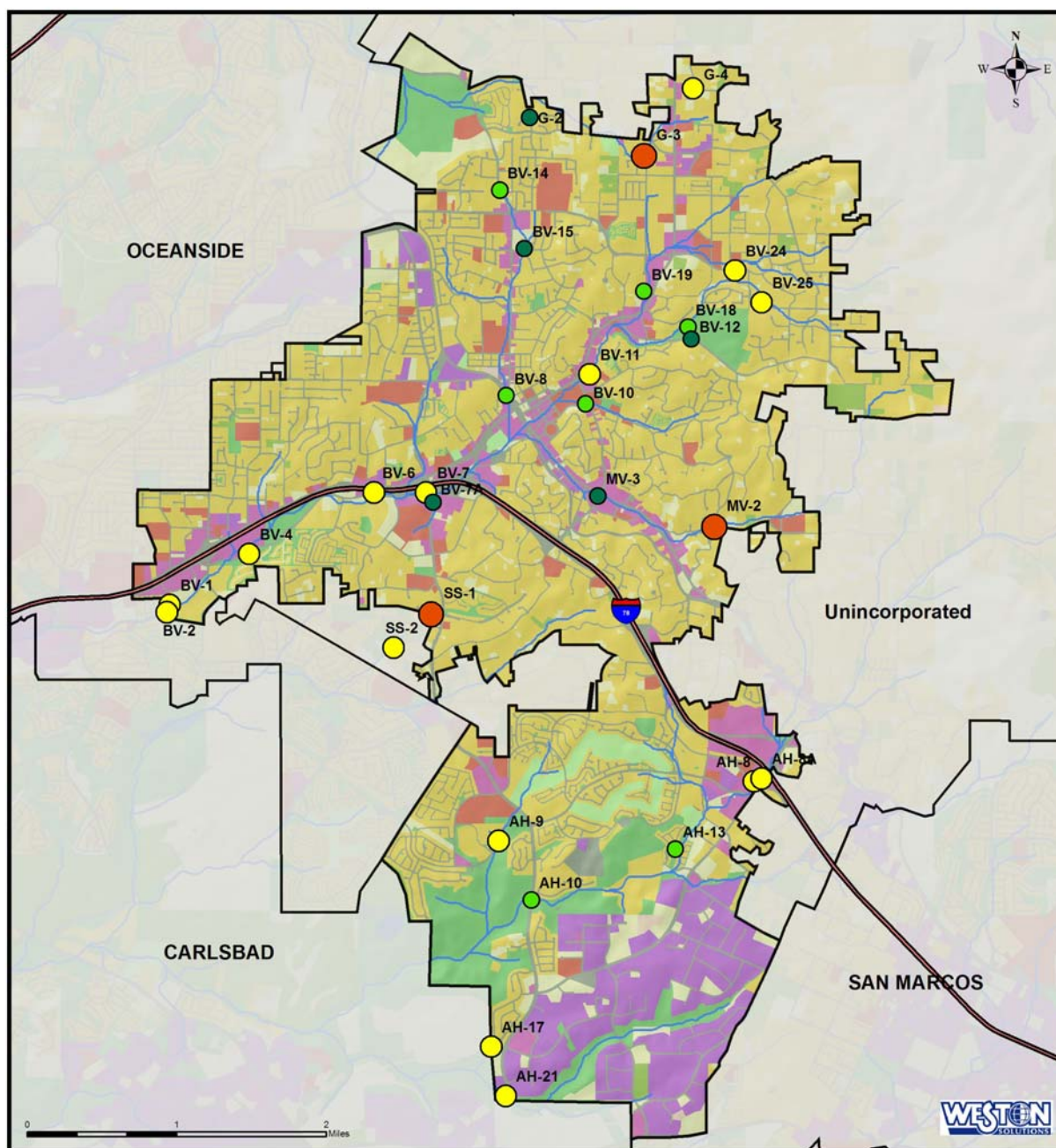
Six sites were above the dry weather action level of 10.0 mg/L for nitrate, (sites AH-8, AH-8A, and BV-19) (Figure 7). In follow-up investigations, sites AH-8A and BV-19 remained above action level criteria (Figure 8).

5.2.3 Ortho-phosphate

Sites MV-2 and G-4 had elevated ortho-phosphate concentrations above the dry weather action level (Figure 9). Follow-up analyses detected ortho-phosphate concentrations again at these two sites (Figure 10).

5.2.4 MBAS

Three sites (BV-1, MV-2, and G-4) had MBAS concentrations that were above the action level of 1.0 mg/L (Figure 11). In follow-up analyses concentrations of MBAS remained above the action level at sites MV-2 and BV-1 (Figure 12). At Site G-4, follow up analysis was not performed due to color interferences from the sample, the presence of trash, and ponded conditions.



Legend

**Sample Station Initial Result for Ammonia
NH₃-N (ppm)**

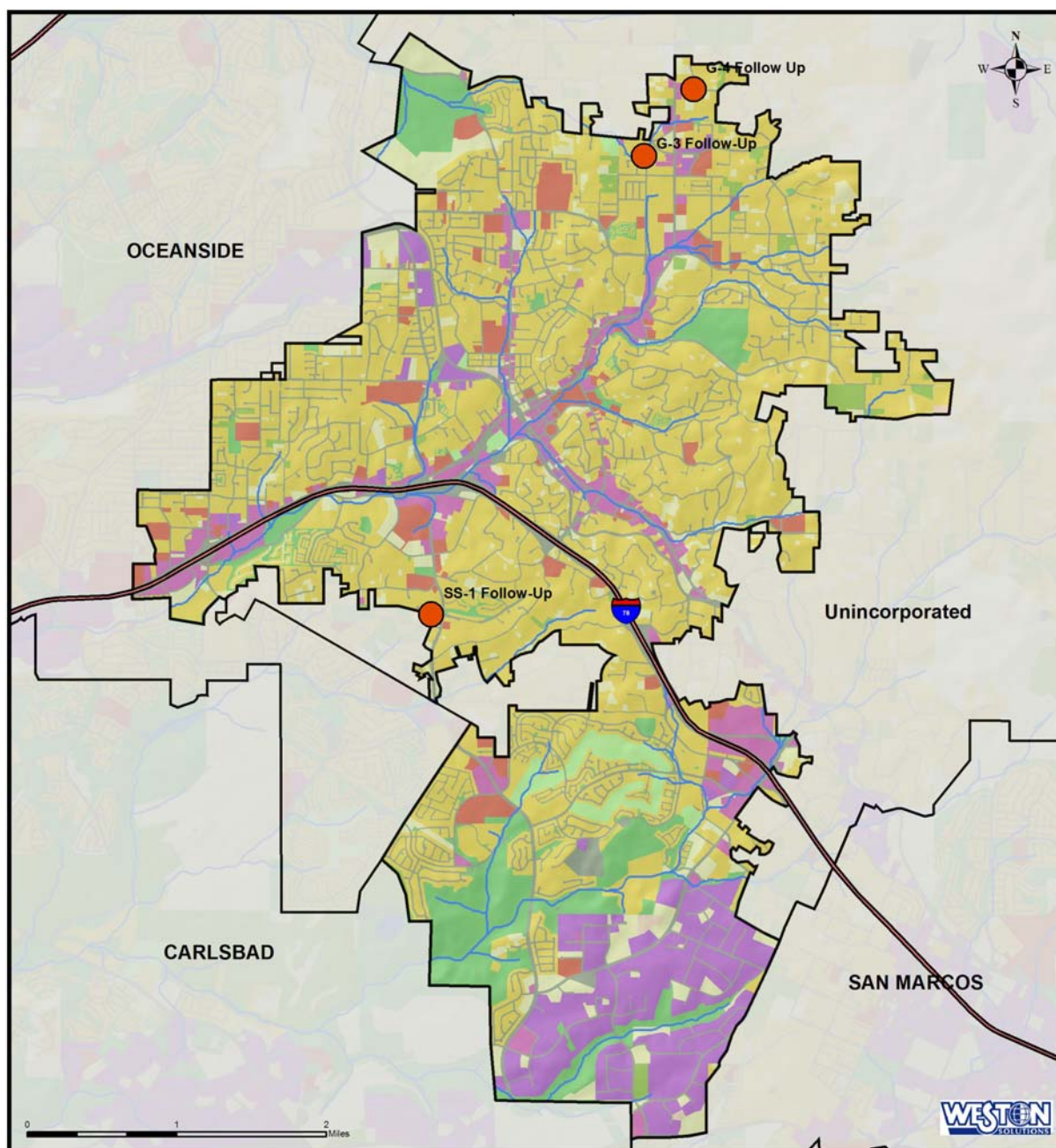
- Dry
- < 0.2
- 0.2 - 0.9
- 1.0 - 8.0 (Action Level = 1.0)

Land Use (SANDAG - 2006)

- Agriculture
- Commercial
- Commercial Recreation
- Industrial
- Military
- Parks

- Public Facility
- Residential
- Transportation
- Under Construction
- Vacant
- Water
- Freeway

Figure 5. Initial Field Screening Results for Ammonia.



Legend

**Sample Station Follow-Up Result for Ammonia
NH₃-N (ppm)**

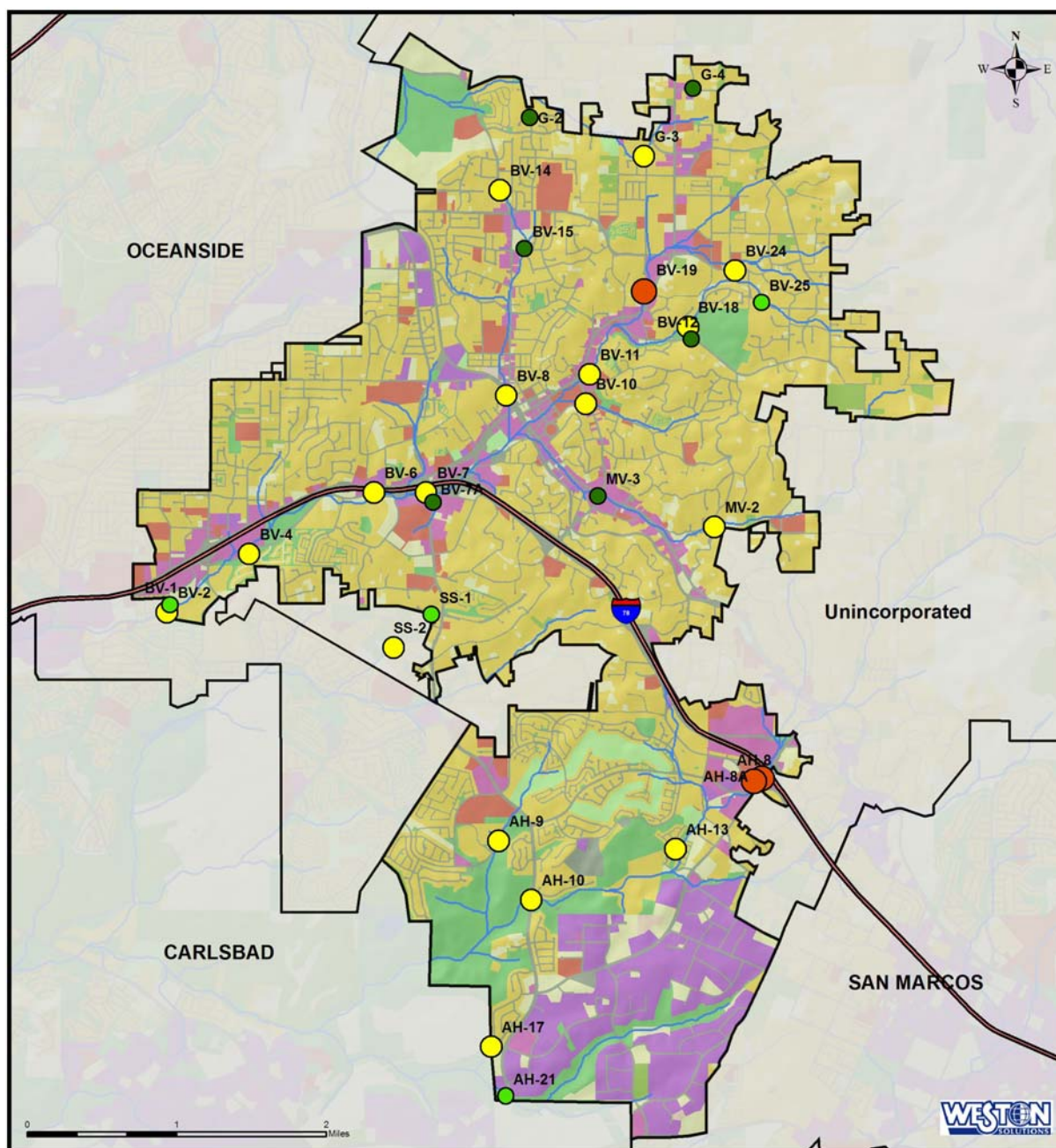
● 1.0 - 7.0 (Action Level = 1.0)

Land Use (SANDAG - 2006)

Agriculture
 Commercial
 Commercial Recreation
 Industrial
 Military
 Parks

Public Facility
 Residential
 Transportation
 Under Construction
 Vacant
 Water
 Freeway

Figure 6. Follow-up Field Screening Results for Ammonia.



Legend

**Sample Station Initial Result for Nitrate
NO₃-N (ppm)**

- Dry
- < 0.2
- 0.2 - 9.9
- 10.1 - 15.0 (Action Level = 10.0)

Land Use (SANDAG - 2006)

- Agriculture
- Commercial
- Commercial Recreation
- Industrial
- Military
- Parks

- Public Facility
- Residential
- Transportation
- Under Construction
- Vacant
- Water
- Freeway

Figure 7. Initial Field Screening Results for Nitrate.

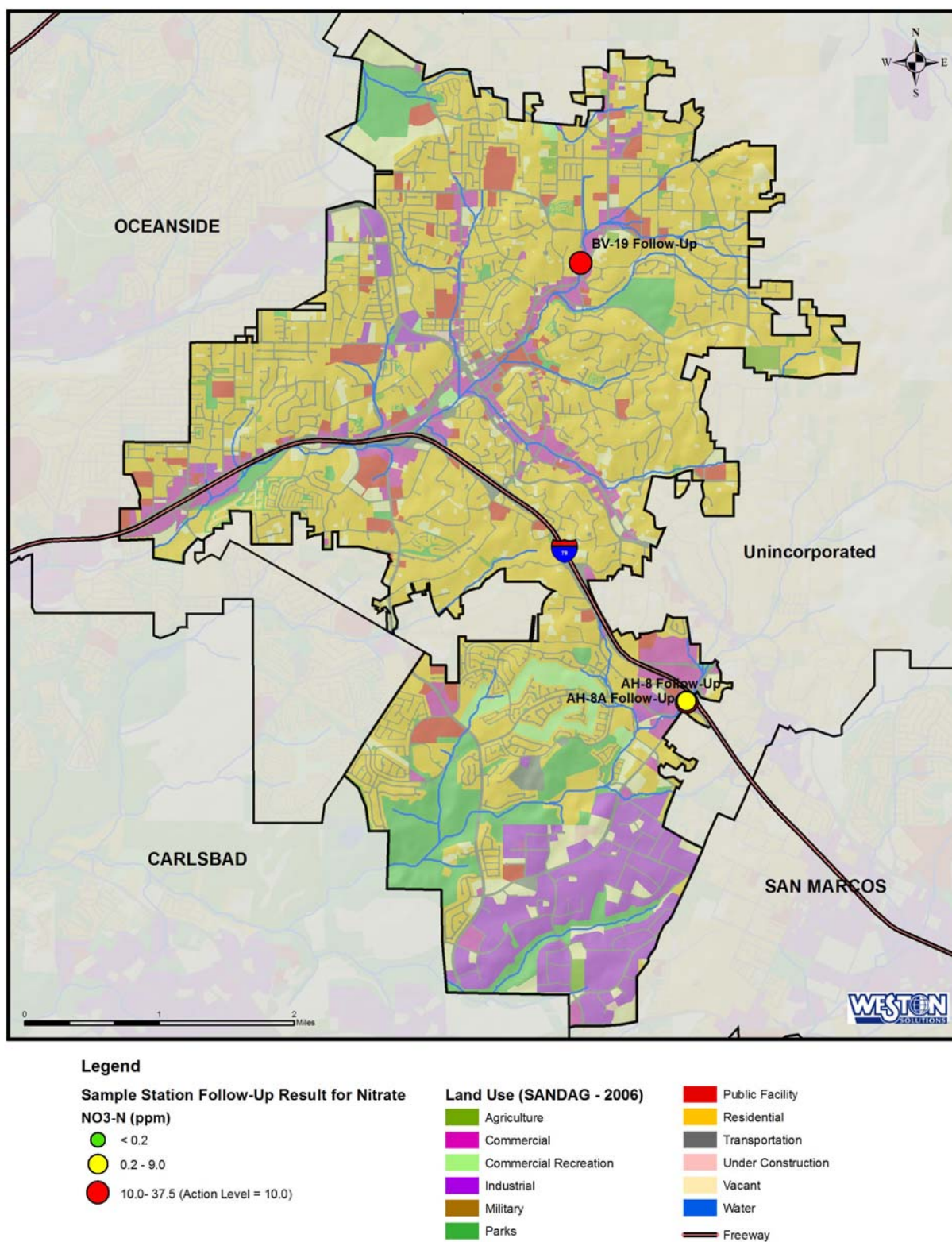
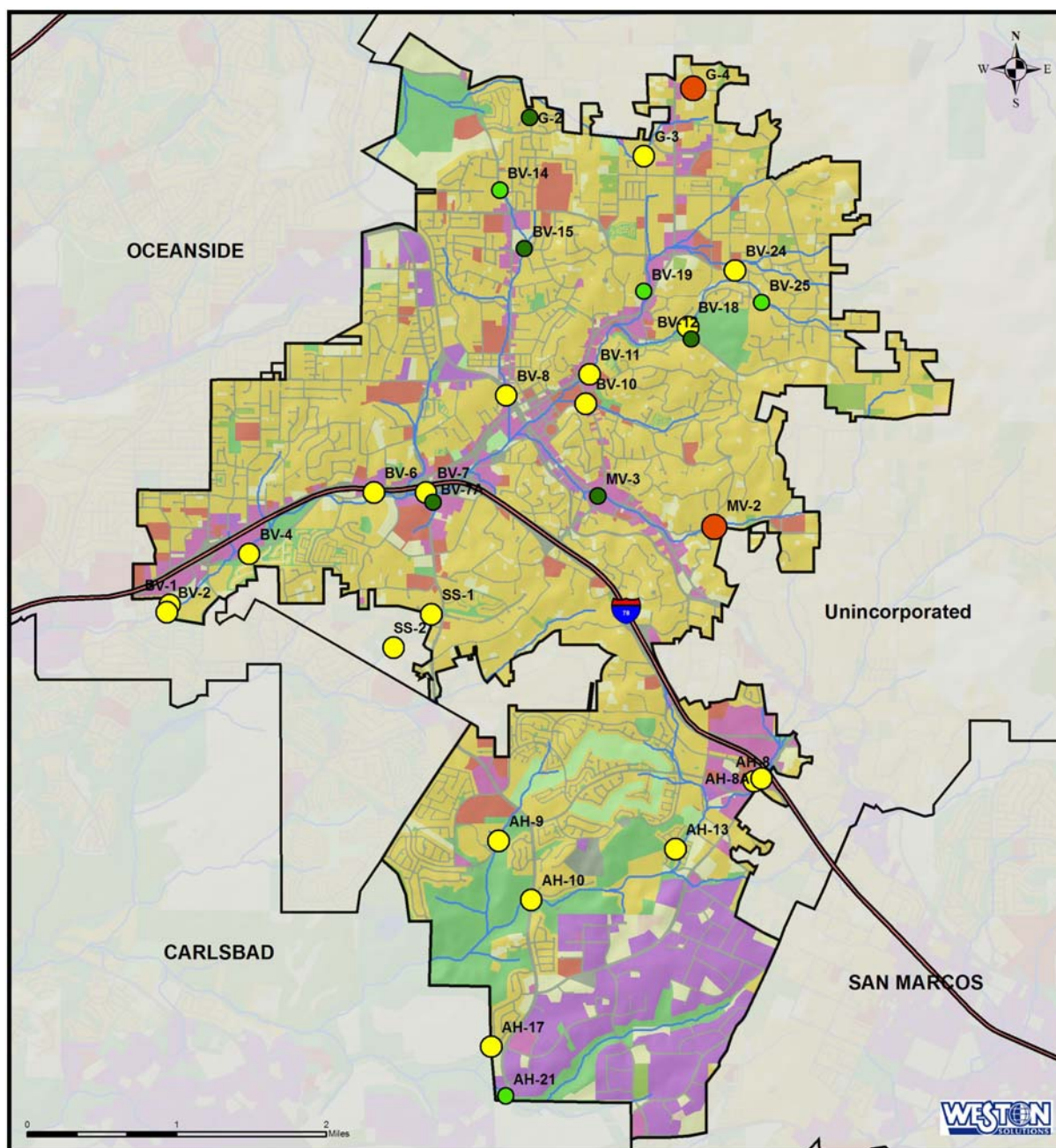


Figure 8. Follow-up Field Screening Results for Nitrate.



Legend

**Sample Station Initial Result for Orthophosphate
PO4 (ppm)**

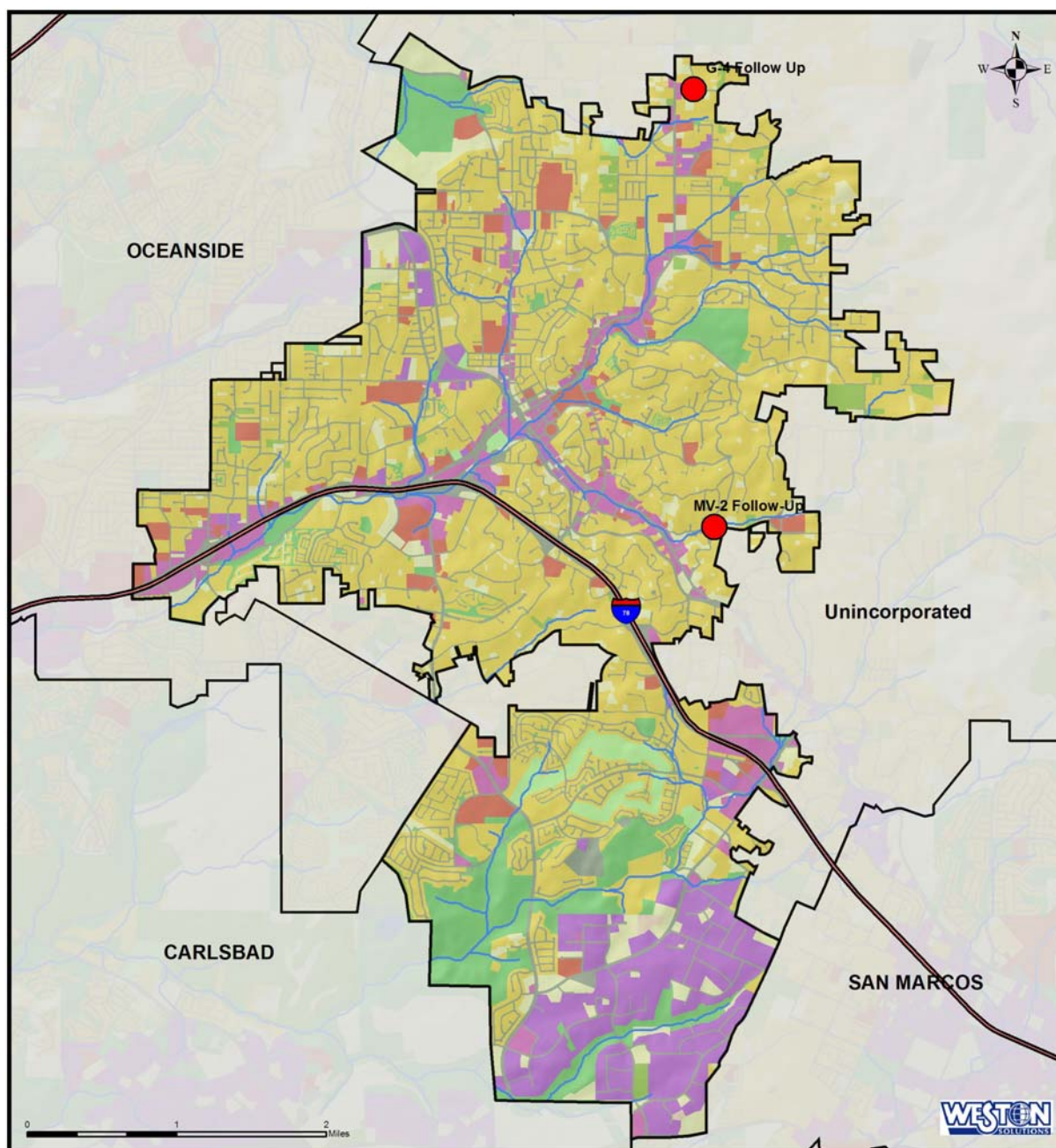
- Dry
- < 0.2
- 0.2 - 1.9
- 2.0 - 4.0 (Action Level = 2.0)

Land Use (SANDAG - 2006)

- Agriculture
- Commercial
- Commercial Recreation
- Industrial
- Military
- Parks

- Public Facility
- Residential
- Transportation
- Under Construction
- Vacant
- Water
- Freeway

Figure 9. Initial Field Screening Results for Ortho-phosphate.



Legend

Sample Station Follow-Up Result for Orthophosphate
PO4 (ppm)

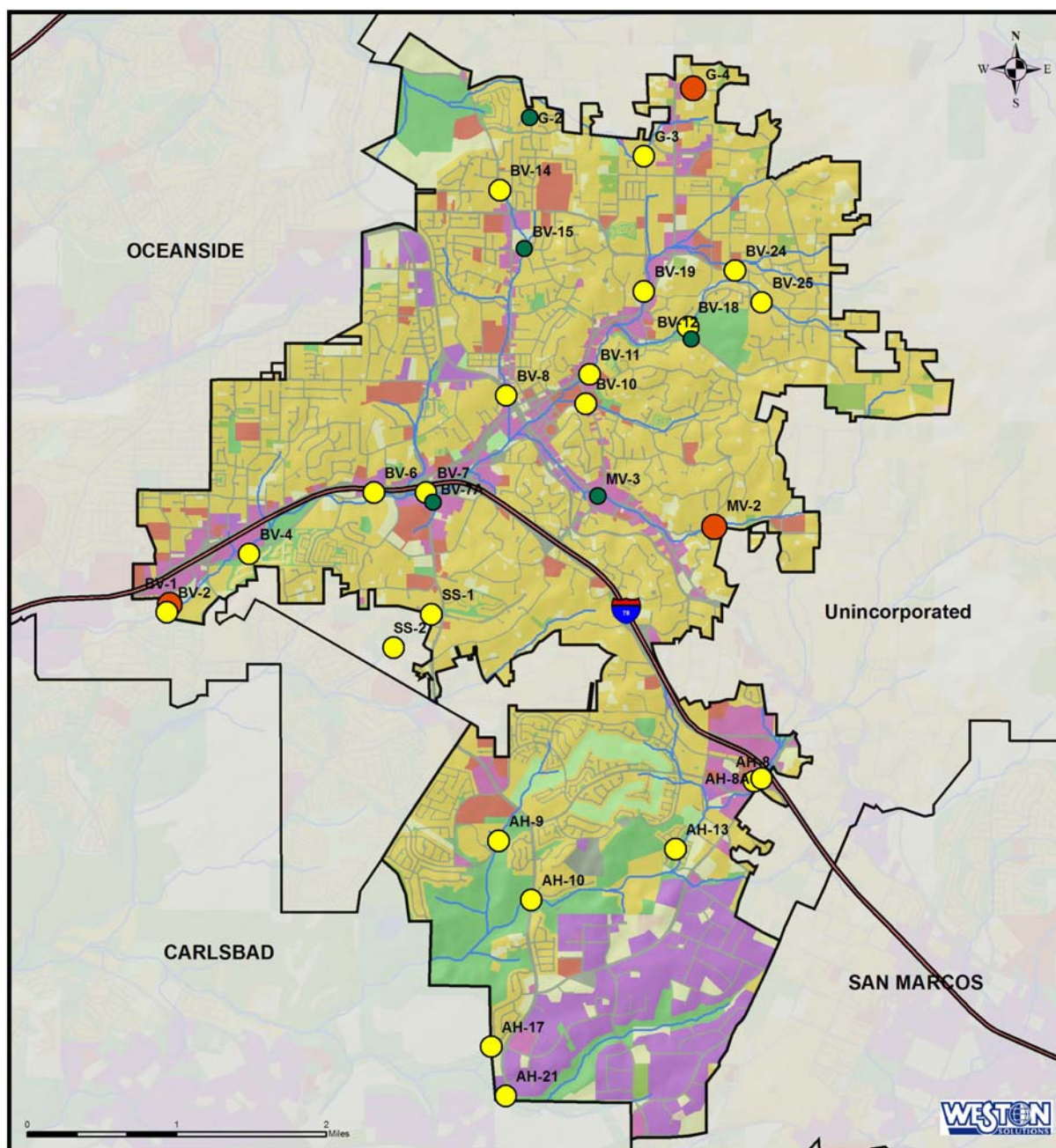
● 2.0 - 6.0 (Action Level = 2.0)

Land Use (SANDAG - 2006)

Agriculture
 Commercial
 Commercial Recreation
 Industrial
 Military
 Parks

Public Facility
 Residential
 Transportation
 Under Construction
 Vacant
 Water
 Freeway

Figure 10. Follow-up Field Screening Results for Ortho-phosphate.



Legend

Sample Station Initial Result for MBAS
MBAS (ppm)

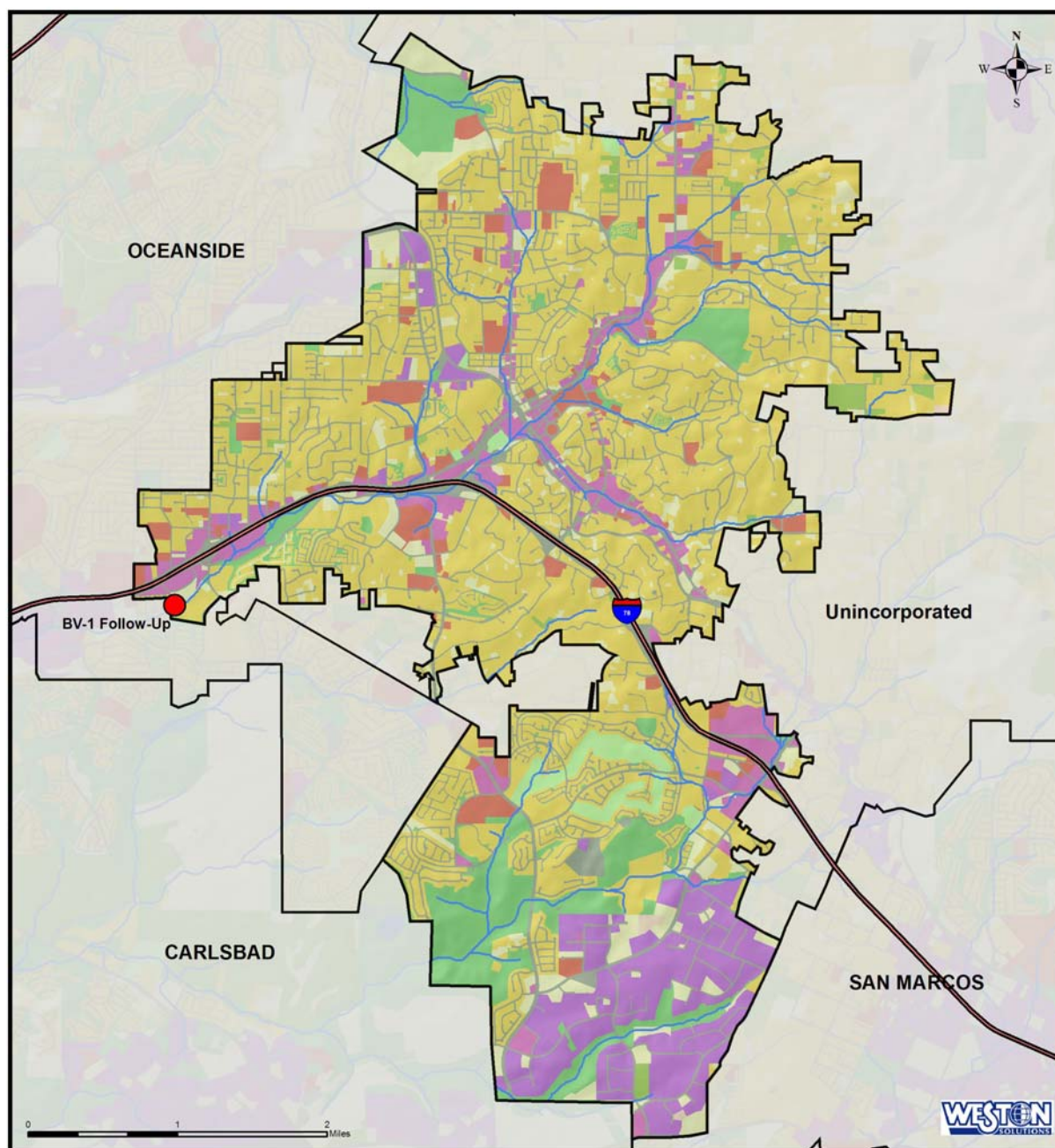
- Dry
- < 0.2
- 0.2 - 0.9
- 1.0 - 5.0 (Action Level = 1.0)

Land Use (SANDAG - 2006)

- Agriculture
- Commercial
- Commercial Recreation
- Industrial
- Military
- Parks

- Public Facility
- Residential
- Transportation
- Under Construction
- Vacant
- Water
- Freeway

Figure 11. Initial Field Screening Results for MBAS.



Legend

Sample Station Follow-Up Result for MBAS
MBAS (ppm)

● 1.0 (Action Level = 1.0)

Land Use (SANDAG - 2006)

Agriculture
 Commercial
 Commercial Recreation
 Industrial
 Military
 Parks

Public Facility
 Residential
 Transportation
 Under Construction
 Vacant
 Water
 Freeway

Figure 12. Follow-up Field Screening Results for MBAS.

6.0 IC/ID INVESTIGATIONS

Illicit connection/ illicit discharge investigations were conducted at nine sites. Sites were selected for IC/ID investigation if action levels were exceeded for the same constituent on initial and subsequent follow-up visits. During the IC/ID investigation, field samples were collected upstream of the site in question until either a source of contamination could be identified or until the stream of water could no longer be followed. Results of the IC/ID investigation were provided to the Code Compliance Officer or Storm Water Manager for the City of Vista when a likely source or cause for the elevated constituent concentration could be identified.

Investigation of Elevated Nitrate levels at Site AH-8

Elevated nitrate levels at site AH-8 were investigated on July 7th, 10th, and 11th, 2006. The field team proceeded upstream along Buena Creek road to locate a source of nitrate responsible for sample concentrations above dry weather action levels during initial and follow up investigations. A sample location was chosen between Oro Avo Terrace and Sugarbush Drive. Oro Avo Terrace has a small natural creek which converges with Agua Hedionda Creek just below Sugarbush Drive and just above Oro Avo Drive. The concentration level of nitrate at Oro Avo Terrace was 15.0 mg/L. The dry weather action level for nitrate-N is 10.0 mg/L. A direct source was not observed at this location. A



IC/ID investigation- upstream of Site AH-8

water sample was taken at the end of Westberry Road. The concentration level of Nitrate was 13.5 mg/L. Weston's field staff then proceeded to Sugarbush Drive where slightly flowing water was observed. The concentration of nitrate was 15.0 mg/L at a sample location near 1129 Sugarbush Drive; a direct source of nitrate was not observed at this location. It should be noted that this location is outside of the City of Vista and is within the County of San Diego jurisdiction (Figure 13).

It is possible that over irrigation and groundwater/wells upstream of AH-8 may be factors contributing to the elevated nitrate levels in this particular reach. The homes along Buena Creek road are relatively large in comparison to others in the City of Vista. Over irrigation of these larger yards along the creek appears to be a leading contributor to runoff. If fertilizers are used in this area, nitrate levels may increase during dry months. It is possible that naturally occurring groundwater may also contribute to higher levels of nitrate at site AH-8. City staff investigated the site on 8/24/06 (Case#: SW06-093). A letter was sent to the property owner at 1129

Sugarbush Drive and the case was then referred to the County as all affected properties are within the County jurisdiction.

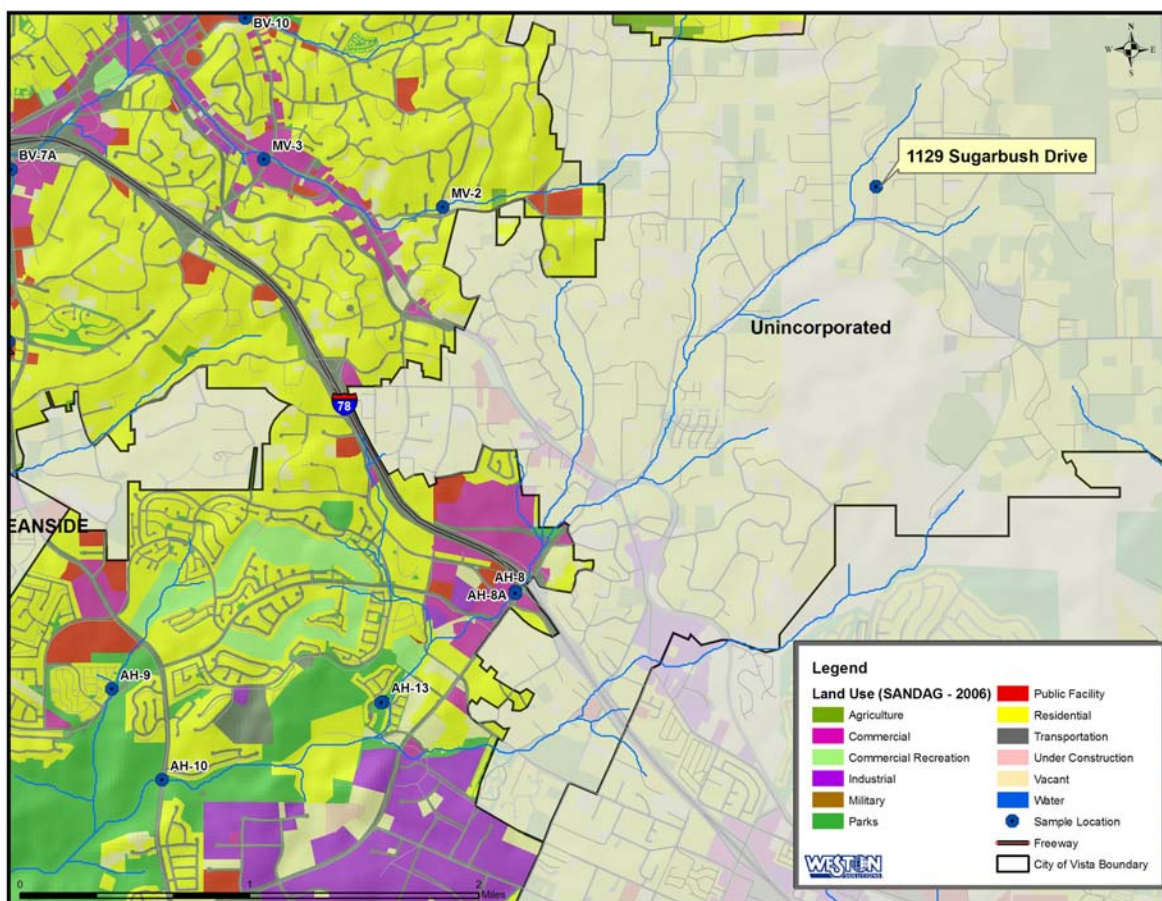


Figure 13. Land Use Map Depicting the Location of 1129 Sugarbush Lane.

Investigation of Elevated Nitrate levels at Site AH-8A

Nitrate levels were investigated in the vicinity of site AH-8A, where flow was evident. The field team proceeded upstream to locate manholes and inlets which feed into the main conveyance of AH-8A. After locating approximately 15 manholes and inlets, there was no evidence of flow. There were two manholes that were not observed because one was located in the middle of Sycamore Avenue (traffic issues) and the other was located behind the Shell gas station and could not be opened.

The conveyance system in the area upstream of AH-8A could be investigated further with the use of conveyance maps and with help from the City's street division to handle traffic concerns near Site AH-8A. This information was then provided to the City's Storm Water Department.

Investigation of Elevated Nitrate levels at Site BVC-1

Elevated nitrate levels at Site BVC-1 were investigated by Weston's field team on July 12th, 13th and 14th, 2006. The field crew proceeded upstream of the site in an attempt to locate the source of the elevated nitrate concentrations. Evidence of two separate flows converging and flowing downstream to BVC-1 was observed from entering a manhole located on the southeast corner of East Vista Way and Arcadia Avenue. The nitrate level in Sample A, whose flow originated somewhere between 1855 East Vista Way and Arcadia Avenue, was 15 mg/L. The flow from stream A converged with Stream B at the corner manhole located at the intersection of East Vista Way and Arcadia Avenue and flowed to Site BVC-1. A sample collected from stream B also had a nitrate concentration of 15 mg/L. The source of nitrate from Sample A was unable to be located because the two manholes located in the bike lane of East Vista Way were not able to be opened and there were no inlets.

Investigating upstream, a manhole was located at the southeast corner of Arcadia Avenue and Laguna Lane. Two separate flows were observed and were tested for elevated nitrate levels. Sample A was collected from a six-inch light blue plastic tube which was located approximately twenty-five feet downstream of the storm drain leading down Arcadia Avenue to East Vista Way. The tube was located approximately three feet up in the storm drain and had an estimated flow of 2.7 gpm. Sample A's nitrate concentration was above the dry weather action level of 10 mg/L. Further investigation of this flow led the field team up Laguna Avenue to Sentry Self Storage located at 1746 Laguna Lane. The drain pipe was observed running under the pavement of the storage lot before disappearing under Taylor Street. Weston's field staff investigated the surrounding area but found no evidence of a potential source for Sample A.

Sample B was observed flowing down the main storm drain conveyance, coming down Laguna Lane. Sample B had a nitrate concentration of 52.5 mg/L. Investigation up the storm drain revealed groundwater seeping/percolating through the seams of the conveyance (Figure 14).

Groundwater was also observed leaking through a crack in the wall in the manhole vault (Figure 15). Further investigation revealed runoff flowing from large homes and a plant nursery in the surrounding area. However, runoff from the homes and the nursery tested below the dry weather action level for nitrate.



Figure 14. Evidence of groundwater seeping through conveyance pipes contributing to flows in Buena Vista Creek.



Figure 15. Groundwater with elevated nitrate concentrations seeping through cracks and seams in storm water conveyances in the Buena Vista Creek-HA.

It is possible that runoff from over irrigation in combination with groundwater upstream of BVC-1 may be contributing factors to the elevated nitrate concentrations in this particular reach of the creek. The homes along Taylor Street are relatively large in comparison to other homes in the City of Vista and over irrigation of these large yards may also influence runoff. If fertilizers are involved, higher nitrate concentrations may be expected, especially during dry months. It is also possible that the naturally occurring groundwater could be adding nitrate to the surface waters in the vicinity of site BVC-1. This information was then provided to the City's Storm Water Department.

Investigation of Elevated Ammonia Levels at Site SS-1

Elevated ammonia levels at site SS-1 were investigated on July 12th, 2006. The field crew proceeded upstream of SS-1 in an attempt to locate an ammonia source responsible for the dry weather action level exceedance. An initial water sample taken at SS-1 had an ammonia concentration of 1.5 mg/L, above the dry weather action level of 1.0 mg/L. During past investigations at site SS-1, flowing irrigation water from surrounding homes was observed entering the conveyance multiple times. The ammonia concentration of a water sample collected from ponded water along the roadside curb was below the dry weather action level. Further investigation led to a pair of two/three inch irrigation pipes coming from the front yards of two homes. Sample A, taken in front of 1238 Branding Iron Circle, had an ammonia concentration of 1.0 mg/L. A sample could not be taken at a second location near the irrigation pipe due to insufficient water (curb was moist but water was not flowing). The irrigation pipe was located at 1217 Branding Iron Circle. Although runoff had not reached the receiving water at the time of the investigation, it is evident that at other times of the day or week, runoff from irrigation in the vicinity of this location does reach the receiving water and may carry ammonia. City staff investigated the location on 8/23/06 (Case#: SW06-094) and confirmed irrigation runoff. Letters were sent to five homeowners on Branding Iron Circle (8/29/06) informing them of this issue and requesting that they review and revise their irrigation and fertilizer practices.

Investigation of Elevated Ammonia Levels at Site G-3

Elevated ammonia concentrations were investigated at site G-3 on July 7th, 2006. A water sample taken at G-3 had an ammonia concentration of 3.0 mg/L, above the dry weather action level for ammonia of 1.0 mg/L. The field crew proceeded upstream of the site in an attempt to locate the source of the ammonia. Samples taken from two weep holes located across from Calle Jules had ammonia concentrations below action levels. Further investigation led the field staff to two potential sources of ammonia. Sample A (1.0 mg/L ammonia) was collected from irrigation/groundwater seeping from a small hill in a yard in front of an apartment complex located at 1731 Calle Jules. Sample B (2.0 mg/L ammonia) was collected from a curb in front of 1738 Calle Jules. The source of the curb water was likely over irrigation. The runoff from Sample A did reach the receiving water while runoff from Sample B did not.

Although only one of the two streams of runoff reached the receiving water, it is believed that during times of over irrigation, higher ammonia concentrations may occur and add to the ammonia loading during dry weather flows at site G-3.

Investigation of Elevated Ammonia Levels at Site AC-1

Elevated ammonia concentrations were investigated at site AC-1 on June 23, 2006. The field crew proceeded upstream of the site in an attempt to locate the source of the ammonia that led to the dry weather action level being surpassed. The field staff observed irrigation runoff upstream of site AC-1. Flowing water was observed in the curb in front of 2480 Grand Avenue. An employee at the business was observed pressure washing a large full-size work truck (Figure 16). A water sample was taken and there was a concentration level of 2.0 mg/L for Ammonia. After speaking with some employees at the business, they proceeded to stop the wash down.

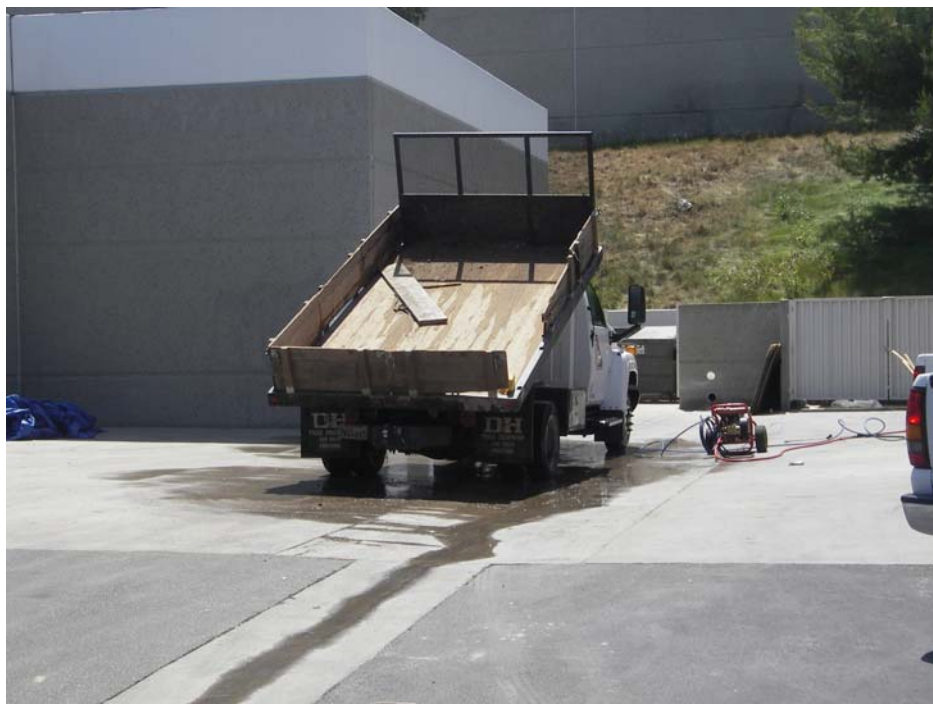


Figure 16. Vehicle washing contributing to dry weather flows at AC-1 on June 23, 2006.

This particular area has had a problem with over-irrigation and illegal dumping. The area above Grande Avenue has large commercial buildings with extensive landscaping. In the past, over irrigation, illegal washing, and dumping may have contributed to high levels of ammonia at site AC-1. However, based on the low concentrations at this facility, it was not believed that this was the sole source of the ammonia concentrations as described in the following IC/ID investigation. This information was then provided to the City's Storm Water Department.

Investigation of Elevated Ammonia Levels at Site AC-1 During a Follow-up for Bacteria.

Elevated ammonia levels at site AC-1 were investigated by Weston's field staff on July 19, 2006. The investigation initially began as a follow up for total coliform at AC-1, however, upon arrival at site AC-1, a noticeable sheen and gray matter was observed on the water surface and a strong chemical odor similar to ammonia was noted (Figure 17). A sample was collected in order to test for total coliform for the follow-up and for ammonia based on the odor.



Figure 17. Site AC-1 during the follow-up investigation for bacteria on 7/19/06.

There was evidence of flow upstream of the site and an investigation as to the source of flow was initiated. The results of the investigation lead to Jensen Meat Co., Inc. located at 2525 Birch Street. The manager of the facility was notified of the ammonia issue and he appeared concerned. He proceeded to make several phone calls to investigate what appeared to be a leaking generator and said that he would correct the problem. It was apparent that condensation water from the refrigeration units was constantly flowing into the storm drain system. It was also evident that cleaning and sweeping of water into the storm drain recently occurred (Figure 18 and Figure 19). This information was then provided to the City's Code Compliance Officer and Storm Water Department. City staff conducted a site visit of Jensen Meat Co. on 7/25/06 and observed that all condensate discharges were piped to sanitary sewer and the ammonia leak had been repaired. This is a high priority industrial facility that is inspected at least once per year. A follow-up site visit on 8/21/06 showed that flow had greatly decreased and that water levels were considerably lower at site AC-1 (Figure 20).



Figure 18. Evidence of illicit discharge from Jensen Meat Co. on 7/19/06.



Figure 19. Evidence of site cleaning and illicit discharge from Jensen Meat Co. on 7/19/06.



Figure 20. Site AC-1 during a post IC/ID Investigation. Water levels were considerably lower on the follow-up on 8/21/06.

Investigation of Surfactants (MBAS) Source at Site BV-1

Weston's field staff investigated elevated levels of surfactants at site BV-1 on July 11th, 2006. The investigation began upstream of site BV-1. A water sample from the outfall was taken and concentration levels were below the dry weather action level. Because the concentration was below the action level, no further action was taken. Weston's field staff also investigated several manholes upstream of the site; however, no water was flowing in the conveyance. No evidence of discharge was observed behind businesses located on Hacienda Drive. No further action was deemed necessary at this time since the flow had ceased. This information was also provided to the City's Storm Water Department.

Investigation of Elevated Temperature/pH levels at Site BV-14T

Elevated temperature and pH values were investigated at Site BV-14T on July 17th, 2006. A water sample collected during the investigation upstream from BV-14T had a temperature of 31.2°C; the pH value was below the action level of 8.95. The dry weather action level for temperature is Best Professional Judgment, while the action level for pH is < 6.5 and < 9.0. The field staff proceeded upstream to further investigate manholes or inlets around the area; however nothing was found.

It is possible that the high temperature at BV-14T is caused by sunlight directly heating N. Santa Fe Avenue, warming the water flowing in the pipe as it crosses just under the street. No further action was deemed necessary as the elevated temperatures are likely a result of the flow passing under the street at this location.

Investigation of Elevated Temperature/pH levels at Site BV-25

A water sample taken from ponded water upstream of Site BV-25 had a temperature of 29.1°C; pH was also measured, but was below action levels. It appears that the ponded water temperature was likely elevated due to direct exposure to the sun.

Results of the IC/ID investigations initial testing are presented below in Table 11.

Table 13. City of Vista Dry Weather Monitoring - ICID Investigation Results.

Site ID	pH	Temperature	Nitrate (mg/L)	Ammonia (mg/L)	Reactive Phosphorus (mg/L)	Surfactants (MBAS) (mg/L)
Dry Weather Action Level	< 6.5 or >9.0	Best Professional Judgement	10.0	1.0	2.0	2.0
AH-8	-	-	15.0	-	-	-
AH-8A	-	-	12.0	-	-	-
BVC-1	-	-	15.0	-	-	-
SS-1	-	-	-	1.5, 1.0	-	-
G-3	-	-	-	3.0, 1.0, 2.0	-	-
AC-1	-	-	-	2.0	-	-
BV-1	-	-	-	-	-	Below action level, Dry
BV-14T	-	31.2°C	-	-	-	-
BV-25	-	29.1°C	-	-	-	-

“-“ parameter not analyzed

6.1 Historical Data Analysis

Historical dry weather monitoring data (1995 – 2005) were combined with 2006 dry weather field monitoring data and are presented in Figure 21 through Figure 27, below. A non-parametric trend analysis by sub-watershed was conducted for each constituent. This analysis was performed to determine whether conditions in the sub-watersheds are improving or if there is any detectable change over time. Historical data are presented in Appendix D.

6.1.1 Methods

Historical dry weather monitoring data were combined with 2006 data and non-detects were included at one half the detection limit. Some sample sites were dry during 2006 sampling, and therefore do not have values in the following figures.

Using a dataset that included the field results for the years 2002-2006, a non-parametric trend analysis was conducted. The data were grouped by sub-watershed, and the average field result for each analyte was used as the representative concentration for that year. More specifically, the field result for each site within a sub-watershed was averaged with all other sites within the sub-watershed for that year. This allows for an analysis of general field chemistry levels for a sub-watershed. The Mann-Kendall trend test, including Sen's slope estimator, was chosen because it has been shown to be more robust when analyzing environmental data. It is often employed in the analysis of time series data. The test does not assume any single distribution for the data being tested, which is an advantage when analyzing environmental data. This test does not incorporate magnitude, but instead calculates the number of positive and negative differences between years. A significance level of 0.05, meaning that the number positive or negative differences needed to exceed the critical value, was used in this analysis (Gilbert, 1987).

The five constituents monitored during dry weather field sampling all had a sufficient number of data points (i.e. dry weather sites continuously monitored for four or more years) to conduct regression analyses.

6.1.2 Results

The results of this test are included in Table 14, below. Increasing or decreasing trends are significant at the 0.05 level. Surfactants (MBAS) and turbidity are increasing in Buena Vista sub-watershed for the period of 2002 to 2006. Phosphates are significantly decreasing in Agua Hedionda, and Guajome sub-watershed has a mix of increasing and decreasing trends. The same size in Guajome sub-watershed is also smaller than the other two sub-watersheds. Averaging the larger number of sites within Agua Hedionda and Buena Vista may decrease the chances of detecting a trend, because extreme values would be moderated.

Table 14. Results of Mann-Kendall Trend Analysis

Analyte	Sub-watershed		
	Agua Hedionda	Buena Vista	Guajome
Ammonia	-	-	Increasing
MBAS	-	Increasing	-
Nitrates	-	-	Decreasing
Phosphates	Decreasing	-	Decreasing
Turbidity	-	Increasing	Increasing

Temporal plots of dry weather parameters were evaluated for sites that exceeded the dry weather action level over time and for sites that were located in the furthest downstream location of the city limits. The sites were presented based on the hydrologic area they were located in.

Sites that have exceeded the dry weather action level for nitrate in the Agua Hedionda-HA are presented in Figure 21. The upper watershed sites AH-8, AH-8A, and AH-13 have consistently had higher concentrations over time in comparison to other sites monitored. Site AC-2, located furthest downstream has not exceeded the nitrate dry weather action level to date. During the 2003 monitoring event, no sites exceeded the dry weather action level for nitrate in the Agua Hedionda-HA.

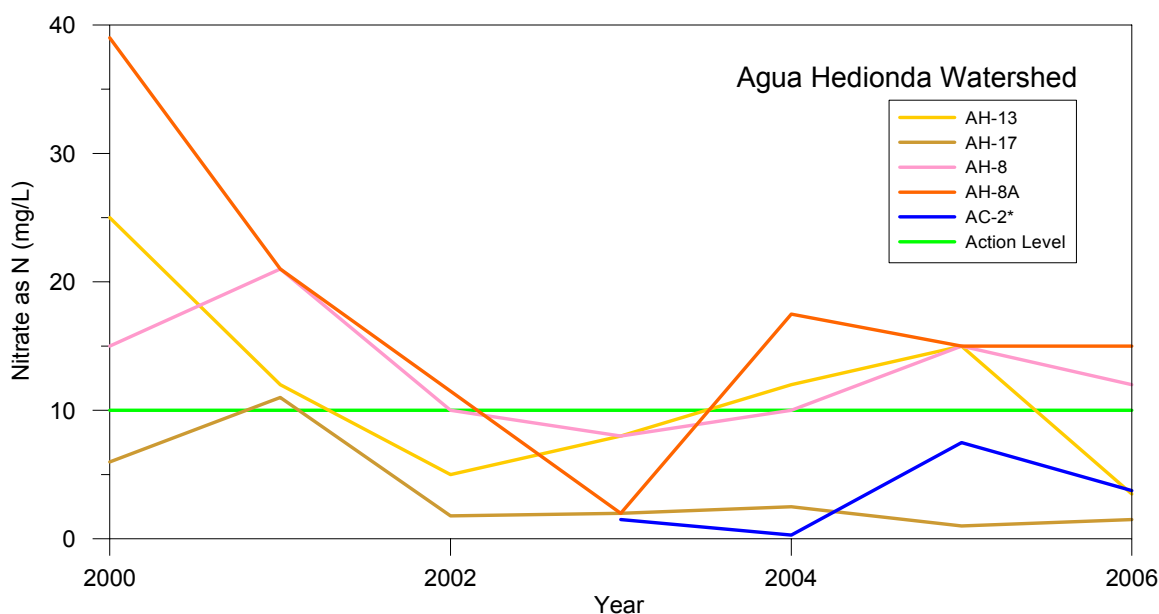


Figure 21. Temporal Plot of Nitrate for the Agua Hedionda-HA.

Sites that have exceeded the dry weather action level for nitrate in the Buena Vista Creek-HA are presented in Figure 22. The upper watershed sites tend to have consistently higher concentrations over time in comparison to other sites monitored and concentrations generally decrease with the sites that are located downstream. Sites BV-1, BV-2, and BVC-3 which are located furthest downstream, have not exceeded the nitrate dry weather action level to date.

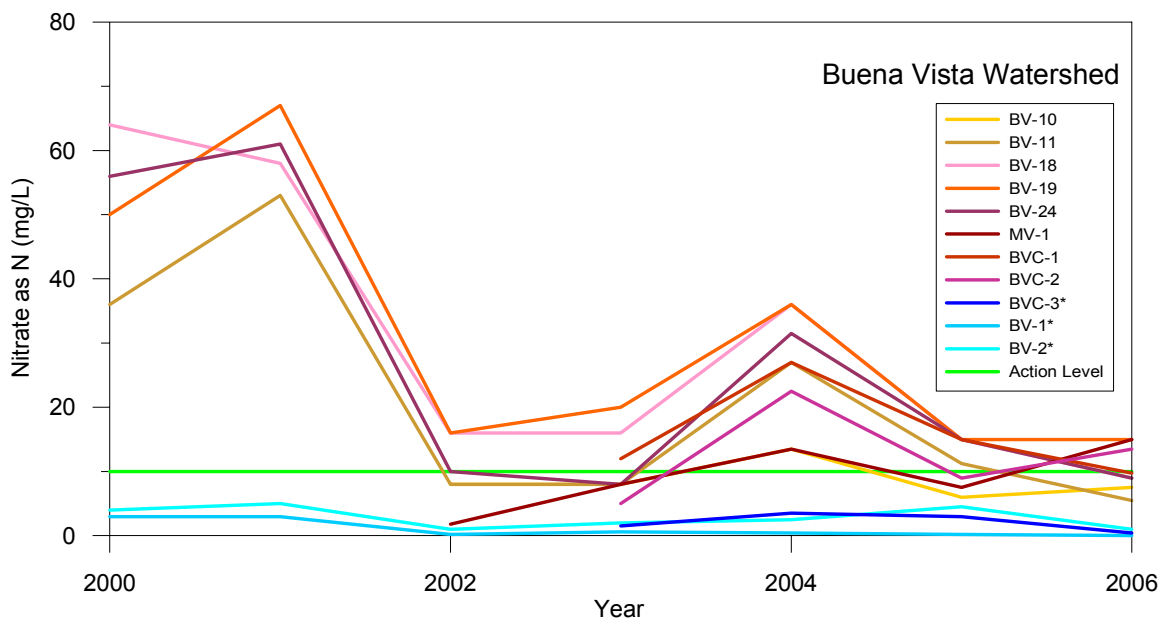


Figure 22. Temporal Plot of Nitrate for the Buena Vista Creek-HA.

Sites that have exceeded the dry weather action level for nitrate in the Lower San Luis Rey-HA represented by the Guajome Creek Sites are presented in Figure 23. Only site G-3 has exceeded the dry weather action level for nitrate which occurred prior to 2003. Site G-3 was dry during the 2005 monitoring period. Site GC-1 is the furthest monitored downstream point and has not exceeded the nitrate dry weather action level to date.

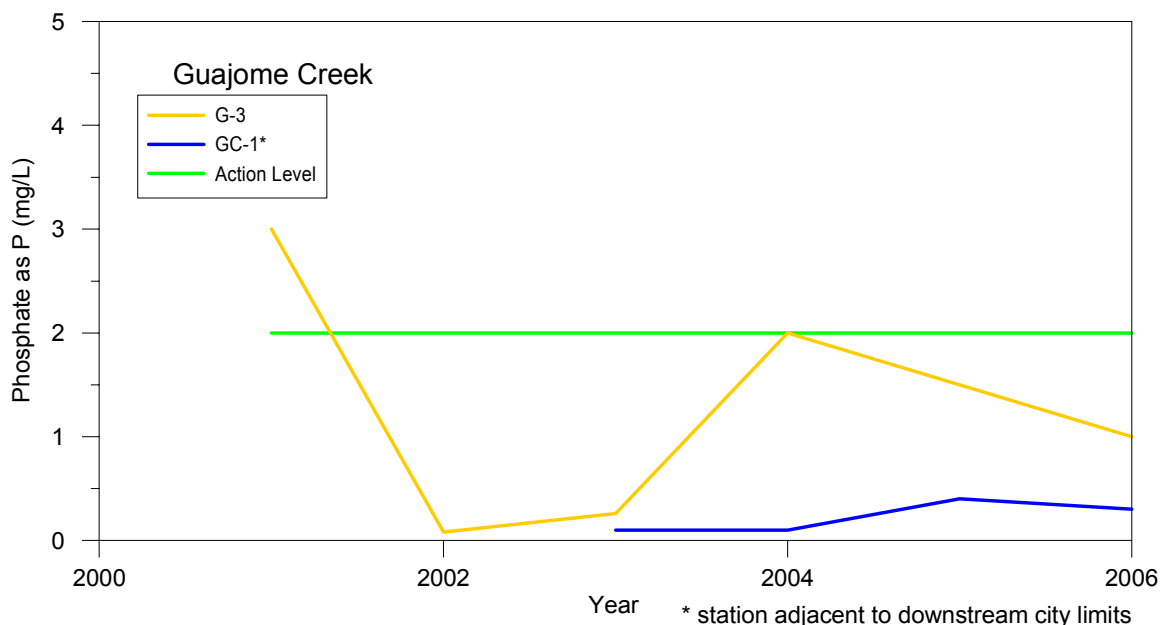


Figure 23. Temporal Plot of Nitrate for Guajome Creek.

Sites that have exceeded the dry weather action level for phosphate in the Agua Hedionda-HA are presented in Figure 24. Only the upper watershed site AH-9, AH-8, AH-8A, AH-21, and AH-17 exceeded or was at the dry weather action level in 2001. Historical data prior to 2001 was not included because it could not be confirmed to be reported as phosphate as PO_4 rather than phosphate as P which would represent a four fold increase in the concentration. Since 2002, all sites have been below the dry weather action level in the Agua Hedionda-HA.

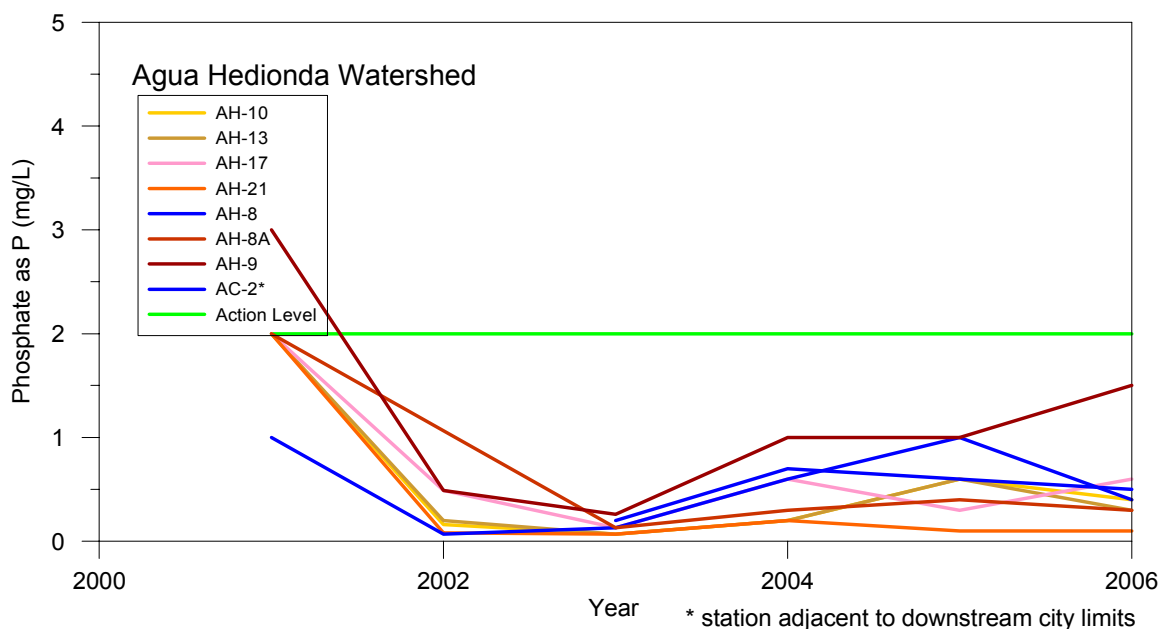


Figure 24. Temporal Plot of Phosphate for the Agua Hedionda-HA.

Sites that have exceeded the dry weather action level for phosphate in the Buena Vista Creek-HA are presented in Figure 25. Historical data in 2001 indicates that all sites monitored were either at or above the dry weather action level. Data collected prior to 2001 was not included because it could not be confirmed to be reported as phosphate as PO_4 rather than phosphate as P which would represent a four fold increase in the concentration. Since 2002, the majority of sites have been below the dry weather action level in the Buena Vista Creek-HA with the exception of sites BV-7, BV-25 and BV-11.

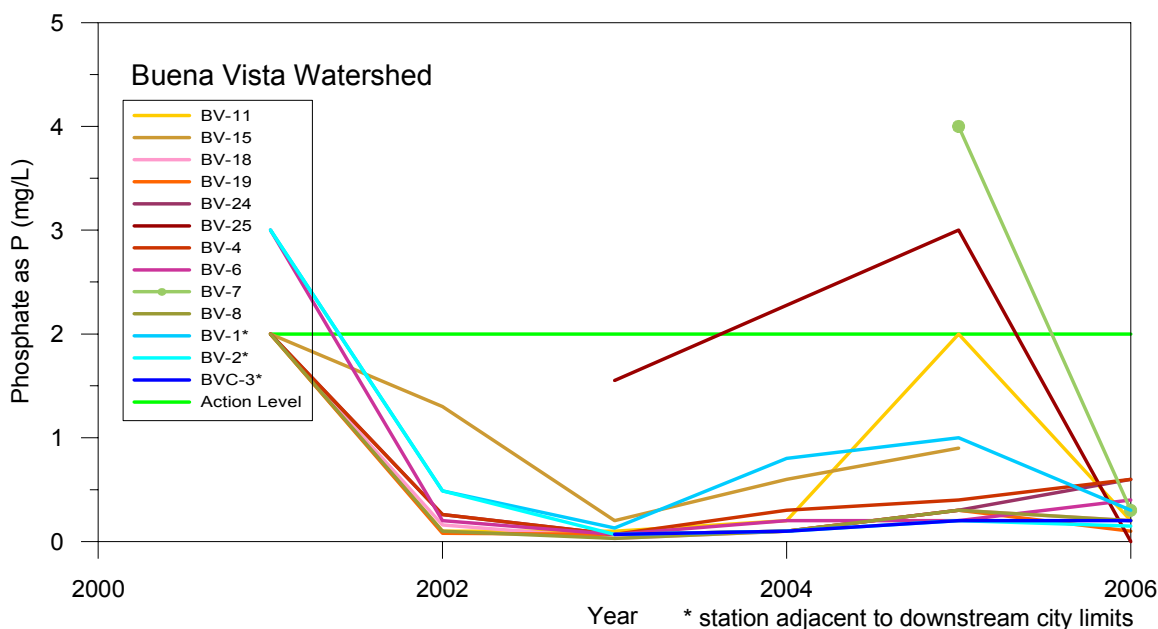


Figure 25. Temporal Plot of Phosphate for the Buena Vista Creek-HA.

Ammonia in the Agua Hedionda-HA was above the action level at sites AC-1 and SS-1 and also in the Lower San Luis Rey-HA at sites G-3 and G-4. The data was not presented temporally since there were relatively few exceedances of ammonia in the Agua Hedionda-HA or for the Lower San Luis Rey-HA sites over time.

Sites that have exceeded the dry weather action level for ammonia in the Buena Vista Creek-HA are presented in Figure 26. Site BV-1 was at the dry weather action level for ammonia in 2002 but has not had an exceedance since that date. Site BV-15 exceeded the dry weather action level for ammonia only in 2004. Only site MV-2 exceeded the dry weather action level in 2006 in the Buena Vista Creek-HA. However, the result was likely due to a color interference from the sample. Sites BV-1, BV-2, and BVC-3 which are located furthest downstream, have not exceeded the ammonia dry weather action level since 2002.

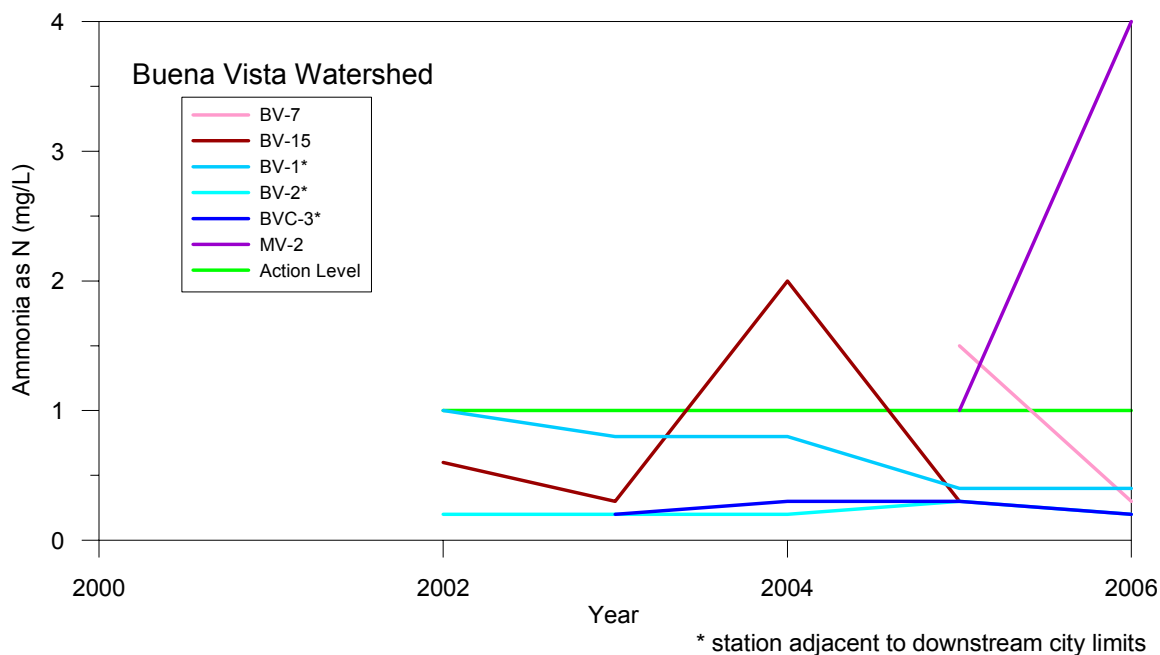


Figure 26. Temporal Plot of Ammonia for the Buena Vista Creek-HA

Sites that have exceeded the dry weather action level for MBAS in the Buena Vista Creek-HA are presented in Figure 27. Site BV-4 exceeded the dry weather action level for MBAS in 2001, site BV-15 exceeded the dry weather action level for MBAS in 2004, and sites BV-7 and BV-7A exceeded the dry weather action level for MBAS in 2005. Sites BV-1 and MV-2 were above the action level in 2006.

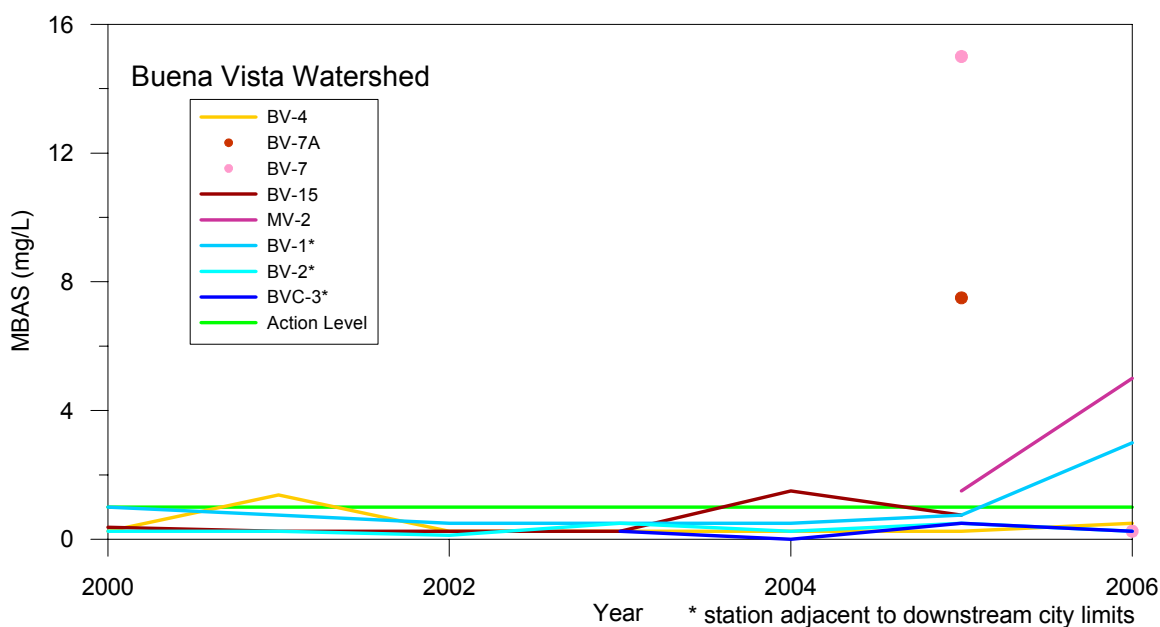


Figure 27. Temporal Plot of MBAS for the Buena Vista Creek-HA

7.0 CONCLUSIONS AND RECOMMENDATIONS

The 2006 Dry Weather Monitoring Program found relatively few indications of illegal discharges to the City of Vista's storm water conveyance system. The most prevalent contaminants detected during the field screening investigations were nitrate, ammonia, and MBAS. Trash was also observed at all but four dry weather monitoring and creek sites. Nitrate, ammonia, and MBAS concentrations were above the dry weather action levels at 10 percent of the site locations (3 of 30 sites for each parameter respectively). Dissolved metals, oil & grease, and pesticides were below dry weather action levels at all sites while bacterial concentrations were above the dry weather action levels at three of the site locations. Observed discharges were primarily associated with irrigation runoff or naturally occurring groundwater flows near residential and commercial properties and at illicit discharges that were identified during the course of IC/ID investigations.

The IC/ID investigations conducted during the 2006 dry weather monitoring season indicated that some point sources were attributable to some of the dry weather action levels exceedances while others may be a result of naturally occurring groundwater flows or over-irrigation. The IC/ID investigation yielded positive results in tracing and identifying the likely sources of elevated constituent concentrations. The likely identified source information was then passed onto the City of Vista's Storm Water Department or Code Compliance Officer to mitigate the illicit discharges and solidify the usefulness of the monitoring program. Recommended actions for each site based on the findings of exceedances from the 2006 Dry Weather Monitoring Program are provided in Table 15.

Future Recommendations

To determine trends in the water quality of the City's dry weather flow, it is recommended that the same dry weather stations and creek sites be monitored in future years. Continuing to monitor these same stations will develop a larger dataset that will provide a greater degree of confidence in the observed trends.

Several storm water conveyances were not traceable since the City of Vista does not currently have a detailed MS4 map on the level needed to perform the IC/ID program efficiently. It is recommended that a detailed cataloging of the City's conveyances be updated. This will assist the City with determining where illegal connections have occurred.

It is recommended that the City of Vista continue its efforts to educate the residents and commercial business owners about the City's pollution prevention programs, specifically in regards to proper trash disposal and fertilizer use. Additionally, residents should be encouraged to reduce over-irrigation that results in dry weather flows in storm water conveyances. This provides the added benefits of reducing the City's water consumption in addition to reducing nuisance dry weather flows. Commercial educational programs should include both the proprietors and their employees. Residential programs should include building owners and residents. An informed public will provide support for new and already existing prevention programs.

Table 15. Recommendations for follow-up activities based on site findings from the 2006 Dry Weather Monitoring Program.

Site	Parameters Above Action Level on Follow-up	Findings	Recommendations for City Action
AH-8, AH-8A	Nitrate	ICID, pipes found outside of city limits	Continue to coordinate with County of San Diego in area, outreach to residents (Completed 9/6/06)
BV-1	MBAS	ICID, MBAS was below action level on IC/ID, nothing unusual	Continue inspections and outreach near commercial and industrial facilities in area (on-going by City)
BV-14Top	pH, Temperature	ICID, not necessary, shallow pipe near street level, excessive heat	No action
BV-19, BVC-2	Nitrate	ICID, Groundwater seepage into conveyances	Naturally occurring groundwater, conduct outreach to reduce irrigation in the up-gradient areas
BV-25	Temperature	Ponded, not flowing and in direct sunlight	No action needed
SS-1	Ammonia	ICID, residential irrigation flow from curb drainage	Conduct outreach to reduce over irrigation and dry weather flows in this area as needed (Completed 8/29/06)
G-3	Ammonia	ICID, flow from 1731 Jules St. Residential irrigation	Conduct outreach to reduce over irrigation and dry weather flows in this area as needed
G-4	Ammonia	Excessive irrigation runoff from residence at sample location, ICID not needed	Conduct outreach to reduce over irrigation and dry weather flows in this area as needed. (Investigated 8/24/06, Completed 8/29/06)
MV-1	Nitrate	ICID, Possible groundwater seepage into conveyances	Naturally occurring groundwater, conduct outreach to reduce irrigation in the up-gradient areas
AC-1	Ammonia, Total and Fecal Coliform	ICID, found Jensen Meat Co. was source	Illicit discharge from washing and from Jensen were eliminated. Continue inspections at Jensen Meat Co., and conduct outreach to area businesses (on-going by City)

8.0 REFERENCES

- Gilbert, Richard O. 1987. Statistical Methods For Environmental Pollution Monitoring (ISBN 0-471-28878-0).
- SANDAG (San Diego Association of Governments). Online 2000 GIS Land Use Data. Available: sandag.org.
- Standard Methods for the Examination of Water and Wastewater 20th Edition. 1998. American Public Health Association, American Water Works Association and Water Environment Federation.
- State Water Resources Control Board. 1997. Water Quality Control Plan for the San Diego Basin.
- U.S. Environmental Protection Agency (EPA). 1993. Investigation of Inappropriate Pollutant Entries Into the Storm Drainage System: A user's guide. Report PB93-131472. Prepared by Alabama University in Birmingham.

APPENDIX A

Site Photos

A.1 Dry Weather Sites

Site AH-8



Natural open channel
Located at southwest corner of Sycamore Avenue and Highway 78
Site visited 10:25 7/6/06

Site AH-8A



12' concrete box outfall
Located at 643 Sycamore Avenue
Site visited 10:30 7/6/06

Site AH-9



Large concrete outfall
Located at Antigua Drive and Shadowridge Drive
Site visited 14:30 7/5/06

Site AH-10



Natural creek
Located at west side of Melrose Drive and Green Oak Drive
Site visited 11:30 6/19/06

Site AH-13



Natural creek
Located at Cottontail Lane and Sandy Lane
Site visited 14:00 7/5/06

Site AH-17



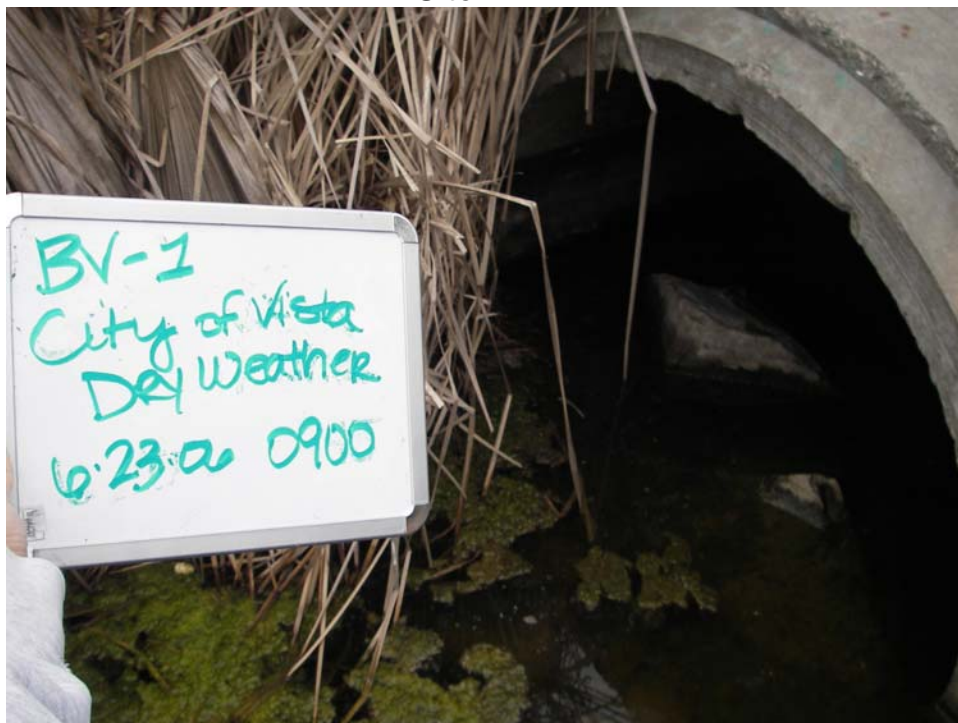
Concrete outfall
Located at west end of Faraday Drive
Site visited 15:05 7/5/06

Site AH-21



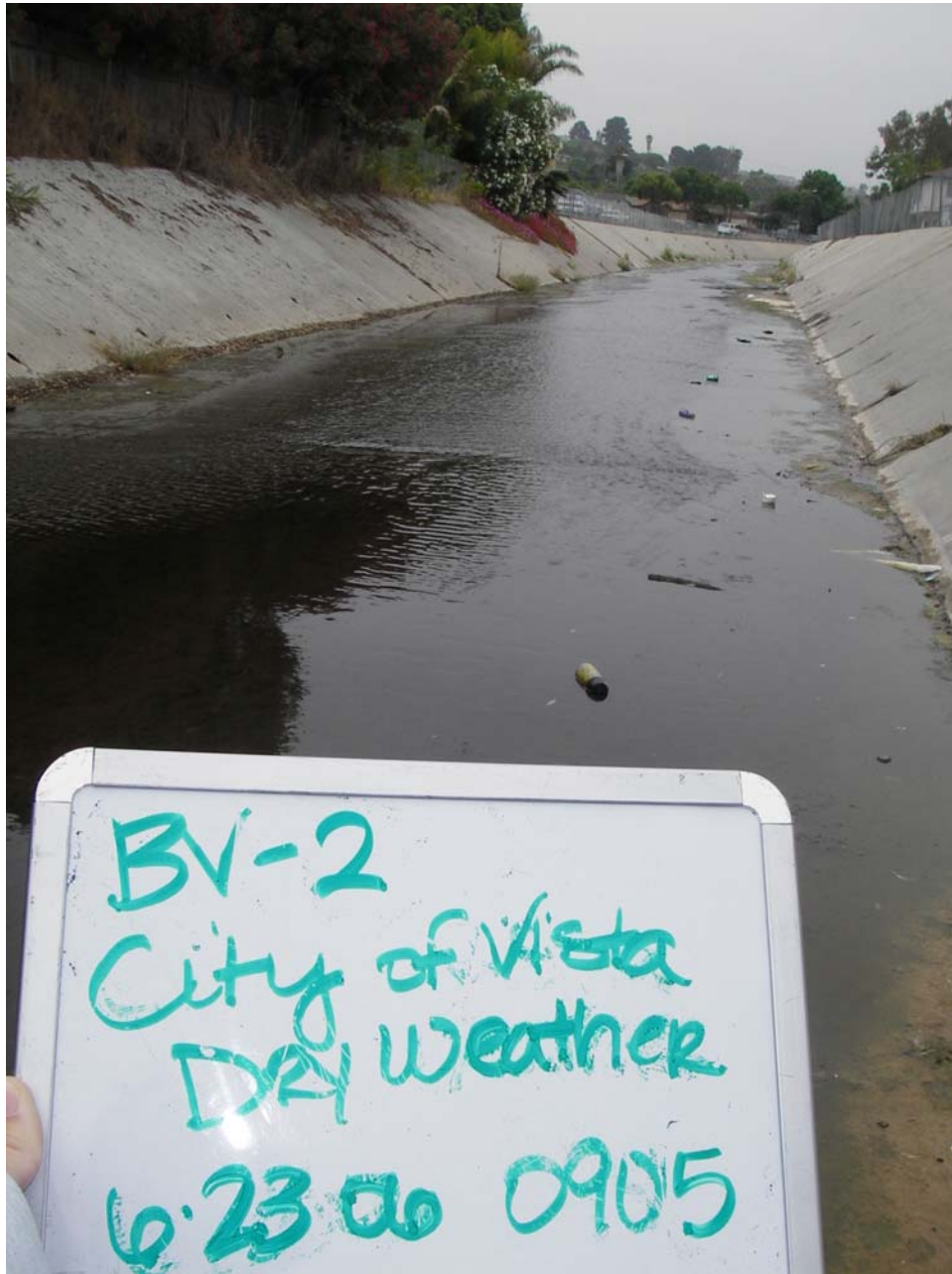
Concrete outfall
Located at south end of Melrose Drive
Site visited 10:20 6/19/06

Site BV-1



48" RCP outfall
Located behind 4241 Tiberon Drive
Site visited 09:00 6/23/06

Site BV-2



20' open concrete channel
Located at east of 4241 Tiberon Drive
Site visited 09:05 6/23/06

Site BV-4



Twin concrete box outfall
Approximately located at 1740 Hacienda Drive
Site visited 12:30 7/6/06

Site BV-6



Natural creek
Located at Hacienda Drive and Breeze Hill Road
Site visited 10:45 6/23/06

Site BV-7



Natural creek
Located on Hacienda across from car wash
Site visited 15:00 6/29/96

Site BV-8



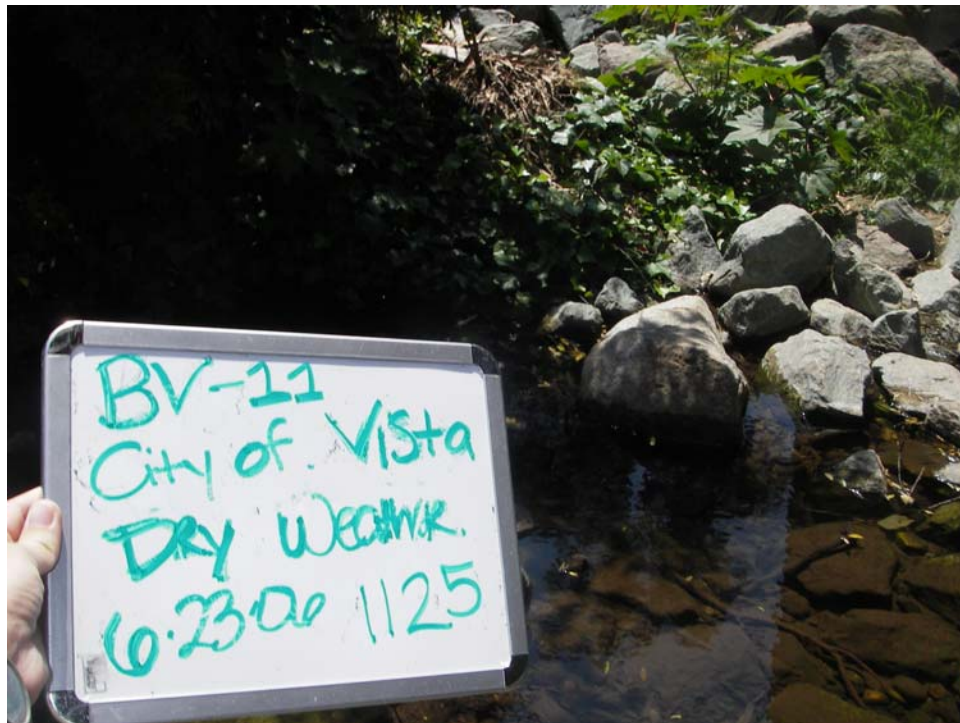
Concrete channel
Located at Goetting Way and Olive Avenue
Site visited 09:45 6/29/06

Site BV-10



Concrete channel
Located at Eucalyptus Avenue and Escondido Avenue
Site visited 12:40 7/5/06

Site BV-11



Natural creek

Located under the footbridge in the Wildwood Park on East Vista Way
Site visited 11:25 6/23/06

Site BV-12



Natural creek

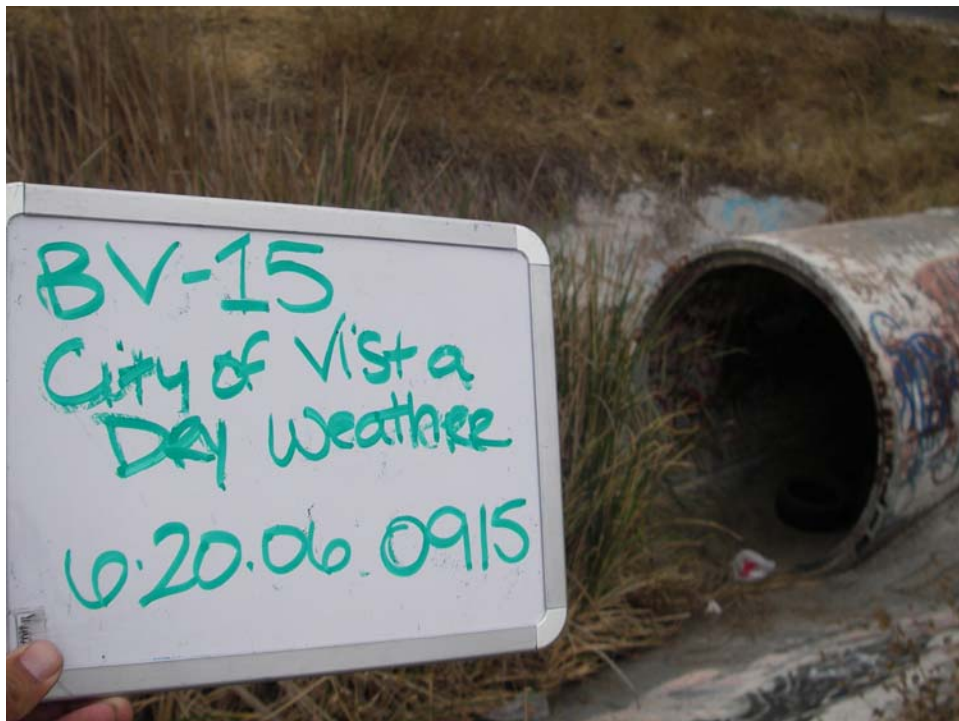
Located on Bengal Terrace Park
Site visited 12:30 7/5/06

Site BV-14



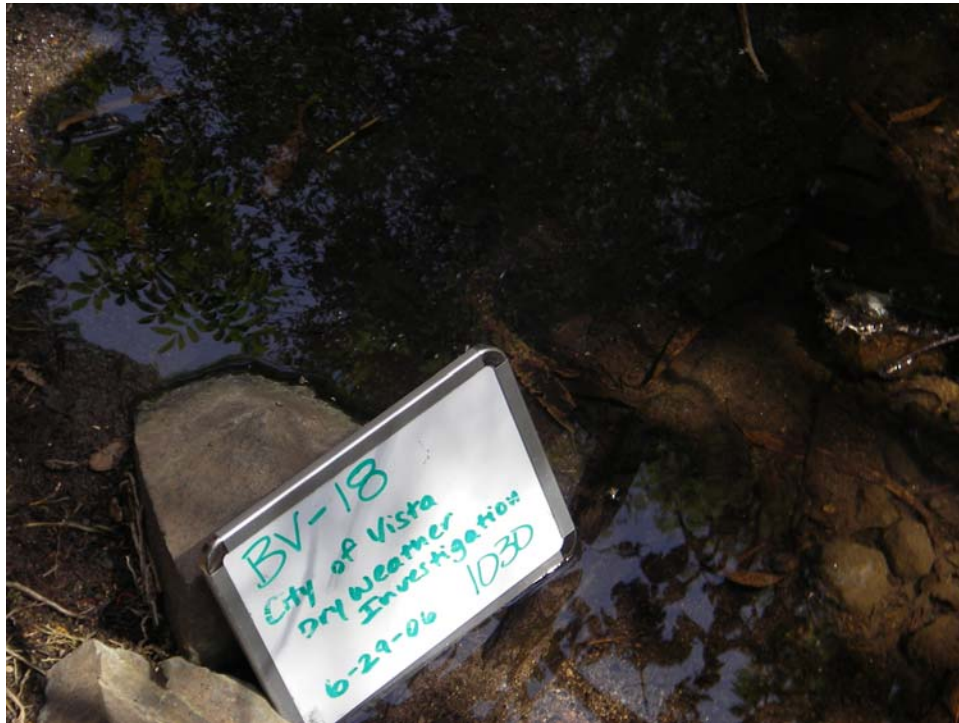
Catchbasin
Located on North Santa Fe Drive and Weston Circle
Site visited 11:00 7/5/06

Site BV-15



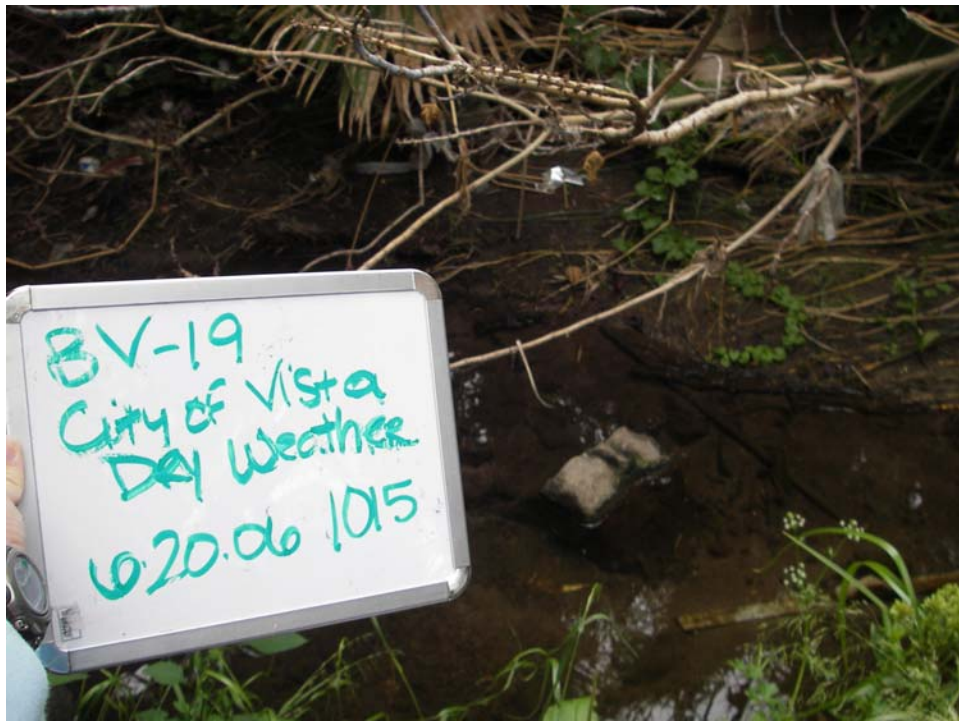
Concrete outfall
Located on the north side of Cananea Street at Citrus Avenue
Site visited 09:15 6/20/06

Site BV-18



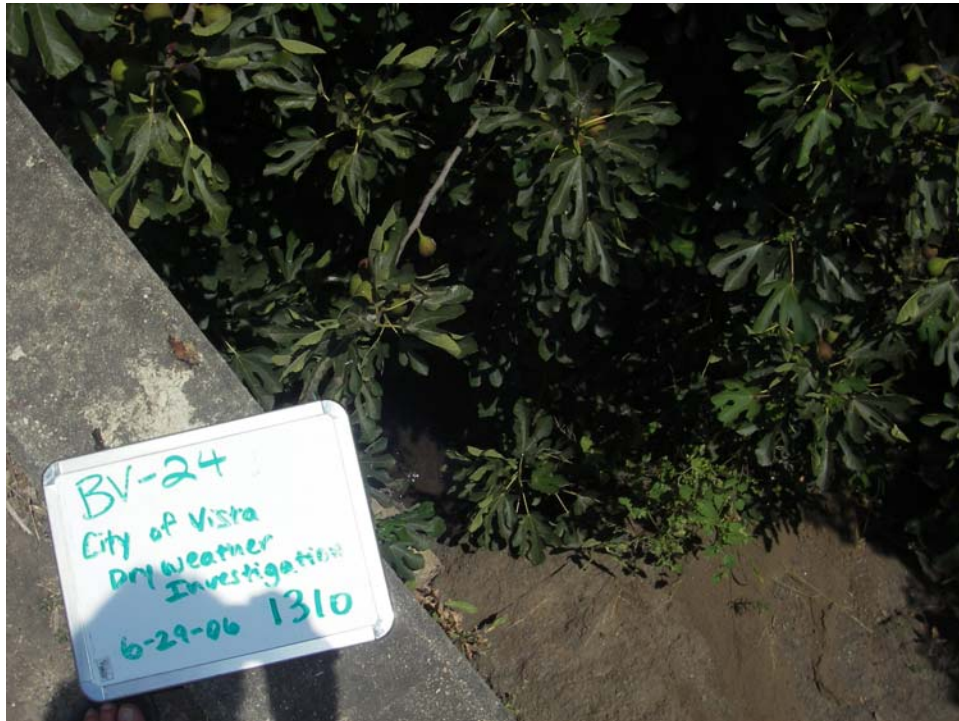
Natural channel
Located at the north side of Brengle Terrace Park
Site visited 10:30 6/29/06

Site BV-19



Earthen channel
Located behind 1040 East Vista Way
Site visited 10:15 6/20/06

Site BV-24



48" outfall
Located at 1427 Foothill Drive
Site visited 13:10 6/29/06

Site BV-25



Natural creek
Located at 1661 Foothill Dr.
Site visited 13:45 6/29/06

Site G-2



Manhole
Located on the north end of Jules
Site visited 13:05 7/6/06

Site G-3



Concrete channel
Located at the north end of Calle Jules
Site visited 11:50 7/5/06

Site G-4



Manhole

Located at 2395 Warmlands
Site visited 12:30 6/23/06

Site MV-2



Manhole

Located on Cypress across from #1073
Site visited 13:30 7/5/06

Site MV-3



Manhole
Located on Santa Fe and Escondido Ave
Site visited 13:35 7/6/06

Site SS-1



Natural creek
Located at Escondido Avenue and Melrose Drive
Site visited 11:45 7/6/06

Site SS-2



Natural creek
Site visited 11:15 7/6/06

A.2 Creek Monitoring Sites

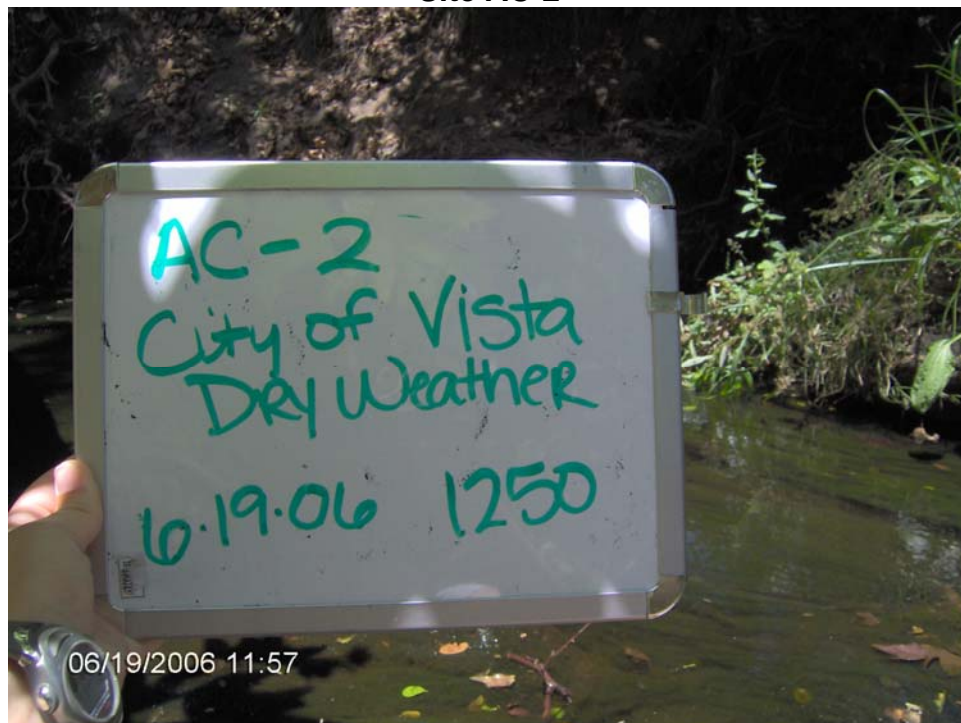
Site AC-1



Concrete outfall

Located at the east end of Green Oak Road, off Sycamore Road
Site visited 14:00 6/19/06

Site AC-2



Natural creek

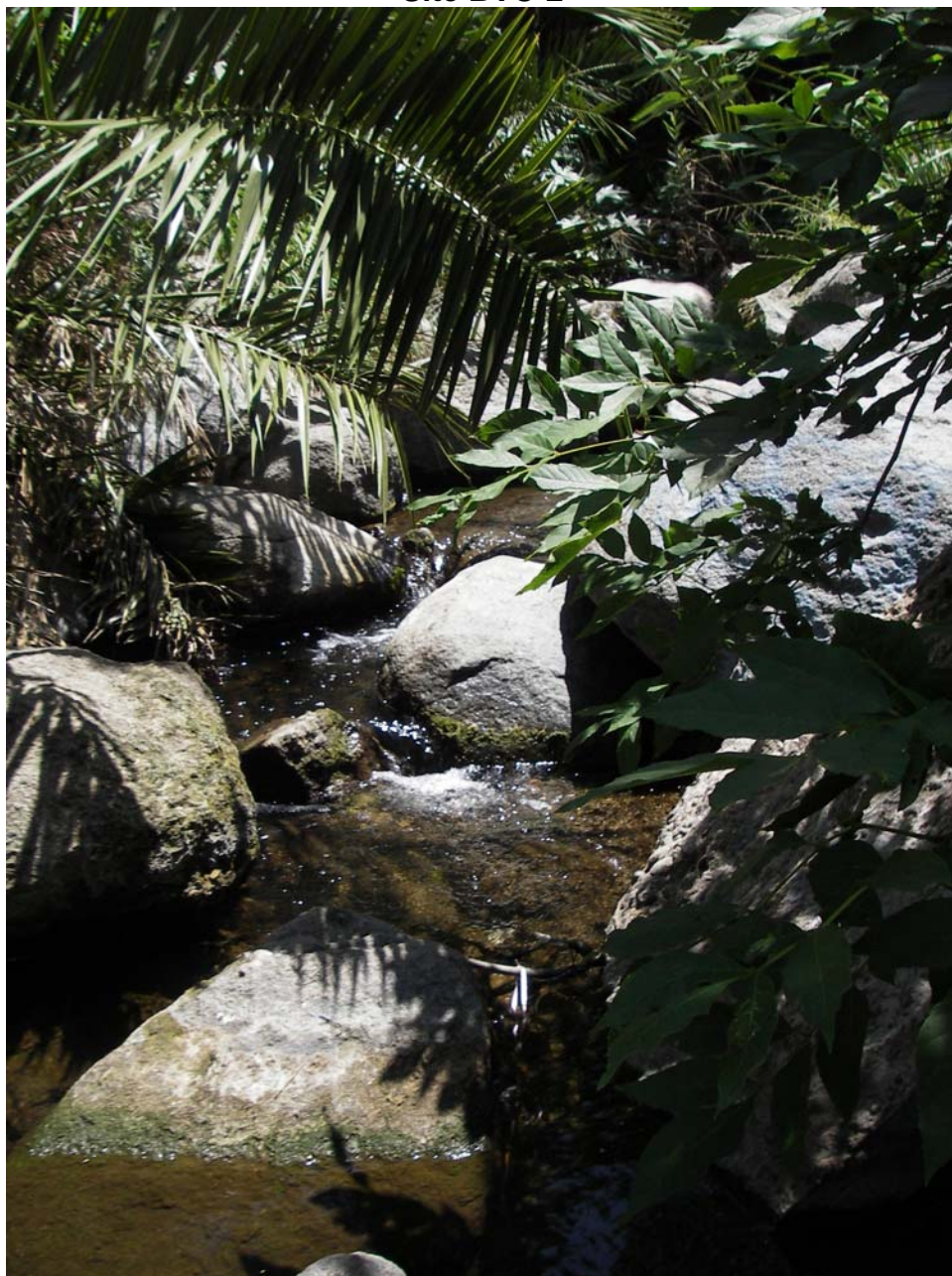
Located 0.35 miles southwest of Melrose Drive and Green Oak Road
Site visited 12:50 6/19/06

Site BVC-1



Concrete channel
Located at East Vista Way, south of Palomar Place
Site visited 09:30 6/20/06

Site BVC-2



Natural creek

Located at East Vista Way, across from Frances Drive
Site visited 11:40 6/20/06

Site BVC-3



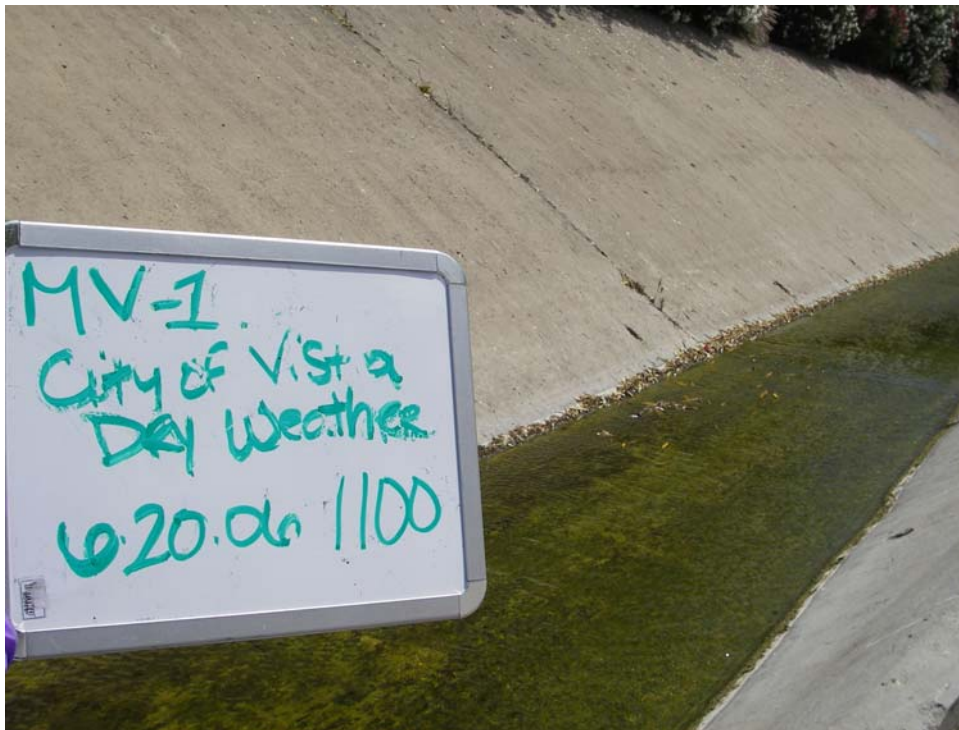
Natural creek
Located 200 feet west of Emerald Drive Bridge
Site visited 09:50 6/23/06

Site GC-1



Natural creek
Located at Melrose Drive and Santa Fe Drive
Site visited 08:30 6/20/06

Site MV-1



6' concrete channel
Located south of Santa Fe Avenue, at the east end of Recreation Drive
Site visited 11:00 6/20/06

APPENDIX B

Field Data Sheets

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Routine Investigation

IC/ID Follow-Up For

N 33° 09.372'
W 117° 13.340'

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AG-1	Latitude	(e.g., 33.41174)	Watershed	Hydrologic Unit	(e.g., 7.00)
Location	east end of green oak Rd off of sycamore	Longitude	(e.g., -117.35213)		Hydrologic Area	(e.g., 7.10) A-H
Date	6.19.06	TB Page			Hydrologic Subarea (Optional)	(e.g., 7.11) A-H
Time	1355	Observer	SA	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

Residential ☒ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐

Land Use (Secondary)
(Optional, greater than 10%)

Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None ☐

Conveyance
(Check one only)

Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter ☐

ATMOSPHERIC CONDITIONS

Weather Sunny ☒ Partly Cloudy ☐ Overcast ☐ Fog ☐

Tide N/A ☒ Low ☐ Incoming ☐ High ☐ Outgoing ☐ Tide Height: _____ ft.

Last Rain > 72 hours ☒ < 72 hours ☐

Rainfall None ☒ < 0.1" ☐ > 0.1" ☐

RUNOFF CHARACTERISTICS

Color None ☒ Musty ☒ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other ☐

Color None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other ☐

Clarity Clear ☒ Slightly Cloudy ☐ Opaque ☐ Other ☐

Floatables None ☒ Trash ☒ Bubbles/Foam ☒ Sheen ☒ Fecal Matter ☐ Other leaf, plastic, styrofoam ☐

Deposits None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other ☐

Vegetation None ☒ Limited ☐ Normal ☐ Excessive ☐ Other ☐

Biology None ☐ Insects ☐ Algae ☒ Fish ☐ Snails ☐ Mussels/Barnacles ☐ Insect/Algae ☐ Insect/Snail ☐ Other crawdads (lots of) ☐

Water Flow Flowing ☐ Ponded ☒ Dry ☐ Tidal ☐

Does the storm drain flow reach the Receiving Water? Yes ☒ No ☐ N/A ☐

Evidence of Overland Flow? Yes ☐ No ☒ Irrigation Runoff ☐ Other: _____

Photo Taken Yes ☒ No ☐ **Photo #** 2

Field Screening Samples Collected?

Yes ☒ No ☐

Water Temp (°C)	72.7°C	NH ₃ -N (mg/L)	8	NO ₃ -N (mg/L)	0.2	Ortho-PO ₄ (mg/L)	0.4
pH (pH units)	8.41	TURB (NTU)	24	COND (mS/cm)	4.07mS	MBAS	0.50

Analytical Lab Samples Collected?

Yes ☒ No ☐ @ 1400

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Velocity		ft/sec	Time to Fill		sec	Depth		ft
Flow		gpm	Flow		gpm	Velocity		ft/sec
						Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Ammonia

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AC-1	Latitude	N 33° 09.312'	Watershed	Hydrologic Unit	Calisbad
Location	East end of Greenoak Road off of Sycamore	Longitude	W 117° 13.340'		Hydrologic Area	1411
Date	6-20-06	TB Page			Hydrologic Subarea (Optional)	1411
Time	0755	Observer	GA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	<u>Overcast</u>	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	Bubbles/Foam	<u>Shed</u>	Fecal Matter	Other
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	<u>Insects</u>	<u>Algae</u>	Fish	Snails	Other
				Mussels/Barnacles	Insect/Algae	Insect/Snail

Water Flow	Flowing	<u>Ponded</u>	Dry	Tidal
Does the storm drain flow reach the Receiving Water?		<u>Yes</u>	No	N/A
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other:
Photo Taken	Yes	<u>No</u>	Photo #	<u>SEE PREVIOUS DAY</u>

Field Screening Samples Collected?

Yes No

Water Temp (°C)		NH ₃ -N (mg/L)	<u>7</u>	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Ammonia

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>Agua Creek 1 AC1</u>	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	<u>6-22-06</u>	TB Page			Hydrologic Subarea (Optional)	
Time	<u>0948</u>	Observer	<u>BE</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	<u>None</u>	<u>Musty</u>	Rotten Eggs	Chemical	Sewage	Other			
Clarity	<u>Clear</u>	<u>Yellow</u>	Brown	White	Gray	Other <u>Muddy</u>			
Floatables	<u>None</u>	<u>Trash</u>	<u>Bubbles/Foam</u>	<u>Sheep</u>	Fecal Matter	Other <u>Bubbles</u>			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other <u>Deposits</u>			
Vegetation	<u>None</u>	Limited	<u>Normal</u>	Excessive		Other			
Biology	<u>None</u>	<u>Insects</u>	<u>Algae</u>	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other <u>lots of crustaceans</u>

Water Flow	Flowing	<u>Ponded</u>	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	Yes	<u>No</u>	Photo # _____	

Field Screening Samples Collected?

Water Temp (°C)		NH ₃ -N (mg/L)	<u>1.0</u>	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	mL	Diameter	ft
Velocity	ft/sec	Time to Fill	sec	Depth	ft
Flow	gpm	Flow	gpm	Velocity	ft/sec
				Flow	gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For

Amma

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AC-1	Latitude	33 09 132	Watershed	Hydrologic Unit	
Location		Longitude	117 14 454		Hydrologic Area	
Date	6-22-06	TB Page			Hydrologic Subarea (Optional)	
Time	10:17	Observer	BL	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo #	_____

Field Screening Samples Collected?

Yes No

Water Temp (°C)		NH ₃ -N (mg/L)	2.0	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

San Diego Stormwater Copermitees Dry Weather Monitoring Field Datasheet

Routine Investigation

ICAD Follow-Up For

Ammonia

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<i>Upstream AC-1</i>	Latitude	<i>33 09.380</i>	Watershed	Hydrologic Unit	<i>01000</i>
Location	<i>Oleander / Mimosa</i>	Longitude	<i>-117 12.897</i>		Hydrologic Area	<i>01000</i>
Date	<i>6-22-06</i>	TB Page			Hydrologic Subarea (Optional)	<i>01000</i>
Time	<i>1510</i>	Observer	<i>LL</i>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Conveyance (Check one only)	<input type="checkbox"/> Manhole	<input type="checkbox"/> Catch Basin	<input type="checkbox"/> Outlet	<input type="checkbox"/> Concrete Channel	<input checked="" type="checkbox"/> Natural Creek	<input type="checkbox"/> Earthen Channel
						<input type="checkbox"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Overcast	<input type="checkbox"/> Fog
Tide	<i>N/A</i>	<input type="checkbox"/> Low	<input type="checkbox"/> Incoming	<input type="checkbox"/> High
Last Rain	<i>> 72 hours</i>	<i>< 72 hours</i>		
Rainfall	<i>None</i>	<i>< 0.1"</i>	<i>> 0.1"</i>	

OFF CHARACTERISTICS

Odor	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Musty	<input type="checkbox"/> Rotten Eggs	<input type="checkbox"/> Chemical	<input type="checkbox"/> Sewage	<input type="checkbox"/> Other
Color	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Yellow	<input type="checkbox"/> Brown	<input type="checkbox"/> White	<input type="checkbox"/> Gray	<input type="checkbox"/> Other
Clarity	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Slightly Cloudy	<input type="checkbox"/> Opaque			
Floatables	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Trash	<input type="checkbox"/> Bubbles/Foam	<input type="checkbox"/> Sheen	<input type="checkbox"/> Fecal Matter	<input type="checkbox"/> Other
Deposits	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Sediment/Gravel	<input type="checkbox"/> Fine Particulates	<input type="checkbox"/> Stains	<input type="checkbox"/> Oily Deposits	<input type="checkbox"/> Other
Vegetation	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Limited	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Excessive		
Biology	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Insects	<input type="checkbox"/> Algae	<input type="checkbox"/> Fish	<input type="checkbox"/> Snails	<input type="checkbox"/> Other <i>crawfish</i>

Water Flow	<input type="checkbox"/> Flowing	<input checked="" type="checkbox"/> Ponded	<input type="checkbox"/> Dry	<input type="checkbox"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<i>maybe</i>
Evidence of Overland Flow?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Irrigation Runoff	<input type="checkbox"/> Other:
Photo Taken	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Photo #	

Field Screening Samples Collected?

☒ Yes ☐ No

Water Temp (°C)		NH ₃ -N (mg/L)	<i>1.0</i>	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Routine Investigation

IC/ID Follow-Up For BAL-T

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AC-1	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7-19-06	TB Page			Hydrologic Subarea (Optional)	
Time	1000	Observer	CC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other	oil/gas			
Color	None	Yellow	Brown	White	Gray	Other				
Clarity	Clear		Slightly Cloudy	Opaque		Other				
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other				
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other				
Vegetation	None	Limited	Normal	Excessive		Other				
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other	crabs

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo #	_____

Field Screening Samples Collected? Yes ☒ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: only foamy material @ outlet

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

(N 33° 15' 28"
W 117° 24' 59.3")

Routine Investigation

IC/ID Follow-Up For

(N 33° 09' 08.0"
W 117° 14' 75.6")

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AG-2	Latitude	(e.g., 33.41174)	Watershed	Hydrologic Unit	(e.g., 7.00)
Location	hike west along path under bridge	Longitude	(e.g., -117.35213)		Hydrologic Area	(e.g., 7.10) A-H
Date	10-19-09	TB Page			Hydrologic Subarea (Optional)	(e.g., 7.11) A-H
Time	1250	Observer	PA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

NOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other leaf debris			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other Sandy			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
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Does the storm drain flow reach the Receiving Water?	Yes	No	N/A
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Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
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Photo Taken	Yes	No	Photo #	3
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Field Screening Samples Collected?

Yes No

* field test dup →

Water Temp (°C)	21.7	NH3-N (mg/L)	0.2	NO3-N (mg/L)	3.75	Ortho-PO4 (mg/L)	0.5
pH (pH units)	8.47	TURB (NTU)	2	COND (mS/cm)	199	MBAS	0.50

Analytical Lab Samples Collected?	Yes	No	@ 1250
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	15	ft
h	5 in	ft
Velocity	1	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

VISTA

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH8	Latitude	33.7655	Watershed	Hydrologic Unit	Carlsbad
Location	123 Sycamore Ave	Longitude	-117.21545		Hydrologic Area	A.H.
Date	7-6-06	TB Page			Hydrologic Subarea (Optional)	Buena
Time	1000	Observer	DC/LC		Discharge Area (Optional)	

Land Use (Primary)

(Check one only)

Residential

☒ Commercial

Industrial

Agricultural

Parks

Open

Land Use (Secondary)

(Optional, greater than 10%)

Residential

☒ Commercial

Industrial

Agricultural

Parks

Open

None

Conveyance

(Check one only)

Manhole

Catch Basin

Outlet

Concrete Channel

Natural Creek

Earthen Channel

Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear		Slightly Cloudy	Opaque		Other
Floatables	None	Tfash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive		Other
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
					Insect/Algae	Insect/Snail

Water Flow ☒ Flowing ☐ Ponded ☐ Dry ☐ TidalDoes the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/AEvidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____Photo Taken ☒ No ☐ Photo # _____Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	21.6	NH ₃ -N (mg/L)	0.4	NO ₃ -N (mg/L)	12	Ortho-PO ₄ (mg/L)	0.4
pH (pH units)	8.97	TURB (NTU)	2	COND (mS/cm)	1.91	MBAS	0.25

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	6.0	ft
Depth	3.0	ft
Velocity	1.67	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Nitrate diluted to 1 ml site 1620 19 ml DI = 15 ml

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-8	Latitude	Longitude	Watershed	Hydrologic Unit
Location		Longitude			Hydrologic Area
Date	7-7-06	TB Page			Hydrologic Subarea (Optional)
Time	0900	Observer	JS/LL	Discharge Area (Optional)	

Land Use (Primary) (Check one only)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	<input checked="" type="radio"/> Partly Cloudy	Overcast	Fog	
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High	<input type="radio"/> Outgoing
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours			
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"		

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<input checked="" type="radio"/> None	Yellow	Brown	White	Gray	Other
Clarity	<input checked="" type="radio"/> Clear		Slightly Cloudy	Opaque		Other
Floatables	<input checked="" type="radio"/> None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	<input checked="" type="radio"/> None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	<input checked="" type="radio"/> None	Limited	Normal	Excessive		Other
Biology	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Insects	<input checked="" type="radio"/> Algae	<input checked="" type="radio"/> Fish	<input checked="" type="radio"/> Snails	<input checked="" type="radio"/> Mussels/Barnacles
				<input checked="" type="radio"/> Insect/Algae	<input checked="" type="radio"/> Insect/Snail	<input checked="" type="radio"/> Other

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Evidence of Overland Flow?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Irrigation Runoff	Other: _____
Photo Taken	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Photo #	_____

Field Screening Samples Collected?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Water Temp (°C)		NH ₃ -N (mg/L)
pH (pH units)		TURB (NTU)
		NO ₃ -N (mg/L)
		COND (mS/cm)
		Ortho-PO ₄ (mg/L)

Analytical Lab Samples Collected?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width	Volume	Diameter
Depth	Time to Fill	Depth
Velocity	Flow	Velocity
Flow		Flow

COMMENTS: 5 ml site 4/20 10 ml DI = 15 ml

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

ICID Follow-Up For Nikele

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	411-8	Latitude	33.18608	Watershed	Hydrologic Unit	
Location	UPSTREAM mouth vista/ Buena creek	Longitude	117.19746		Hydrologic Area	
Date	7-7-06	TB Page			Hydrologic Subarea (Optional)	
Time	1230	Observer	CE	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Conveyance (Check one only)	<input type="checkbox"/> Manhole	<input type="checkbox"/> Catch Basin	<input checked="" type="checkbox"/> Outlet	<input type="checkbox"/> Concrete Channel	<input type="checkbox"/> Natural Creek	<input type="checkbox"/> Earthen Channel
						<input type="checkbox"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="checkbox"/> Sunny	<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Overcast	<input type="checkbox"/> Fog
Tide	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Low	<input type="checkbox"/> Incoming	<input type="checkbox"/> High
Last Rain	<input checked="" type="checkbox"/> > 72 hours	<input type="checkbox"/> < 72 hours		
Rainfall	<input checked="" type="checkbox"/> None	<input type="checkbox"/> < 0.1"	<input type="checkbox"/> > 0.1"	

RUNOFF CHARACTERISTICS

Odor	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Musty	<input type="checkbox"/> Rotten Eggs	<input checked="" type="checkbox"/> Chemical	<input type="checkbox"/> Sewage	<input type="checkbox"/> Other
Color	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Brown	<input type="checkbox"/> White	<input type="checkbox"/> Gray	<input type="checkbox"/> Other
Clarity	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Slightly Cloudy	<input type="checkbox"/> Opaque			<input type="checkbox"/> Other
Floatables	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Trash	<input type="checkbox"/> Bubbles/Foam	<input type="checkbox"/> Sheen	<input type="checkbox"/> Fecal Matter	<input type="checkbox"/> Other Leaf Debris
Deposits	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Sediment/Gravel	<input type="checkbox"/> Fine Particulates	<input type="checkbox"/> Stains	<input type="checkbox"/> Oily Deposits	<input type="checkbox"/> Other
Vegetation	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Limited	<input type="checkbox"/> Normal	<input type="checkbox"/> Excessive		<input type="checkbox"/> Other
Biology	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Insects	<input type="checkbox"/> Algae	<input type="checkbox"/> Fish	<input checked="" type="checkbox"/> Snails	<input type="checkbox"/> Other

Water Flow	<input type="checkbox"/> Flowing	<input checked="" type="checkbox"/> Pooled	<input type="checkbox"/> Dry	<input type="checkbox"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Possible
Evidence of Overland Flow?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Irrigation Runoff	<input type="checkbox"/> Other:
Photo Taken	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Photo #	

Field Screening Samples Collected?

Water Temp (°C)		NH ₃ -N (mg/L)	1.0	NO ₃ -N (mg/L)	0.2	Ortho-PO ₄ (mg/L)	5.5
pH (pH units)		TURB (NTU)		COND (mS/cm)		MBAS	25

Analytical Lab Samples Collected? Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	mL	Diameter	ft
D	ft	Time to Fill	sec	Depth	ft
Velocity	ft/sec	Flow	gpm	Velocity	ft/sec
Flow	gpm			Flow	gpm

COMMENTS: lots of mosquito larvae - Annas 426 color?

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

ICID Follow-Up For N. Hale

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>AH-8</u>	Latitude	<u>33.19062</u>	Watershed	Hydrologic Unit	<u> </u>
Location	<u>Upstream w Sugarbush</u>	Longitude	<u>117.18847</u>		Hydrologic Area	<u> </u>
Date	<u>7-11-06</u>	TB Page	<u> </u>		Hydrologic Subarea (Optional)	<u> </u>
Time	<u>1030</u>	Observer	<u>CC</u>	Discharge Area (Optional)		<u> </u>

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	<u>None</u>	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other <u>cat debris</u>
Deposits	<u>None</u>	<u>Sediment/Gravel</u>	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	<u>None</u>	<u>Limited</u>	<u>Normal</u>	Excessive		Other
Biology	<u>None</u>	<u>Insects</u>	<u>Algae</u>	Fish	Snails	Mussels/Barnacles
				Insect/Algae	Insect/Snail	Other <u>polywoss</u>

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal	<u>Trickle</u>
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A		
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other:	<u>possible - none seen</u>
Photo Taken	<u>Yes</u>	No	Photo #		

Field Screening Samples Collected?

Yes No

Water Temp (°C)		NH3-N (mg/L)		NO3-N (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	1128 406A Bush	Latitude	33 19 15.4	Watershed	Hydrologic Unit	02 000
Location	UPSTREAM AH-8	Longitude	117 13 88.5		Hydrologic Area	00 000
Date	7.11.06	TB Page			Hydrologic Subarea (Optional)	00 000
Time	1200	Observer	CE	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance (Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input checked="" type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours		
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"	

WATERSHED CHARACTERISTICS

Odor	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Color	<input checked="" type="radio"/> None	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Slightly Cloudy	<input type="radio"/> Opaque			<input type="radio"/> Other
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive		<input type="radio"/> Other
Biology	<input checked="" type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal	<input checked="" type="radio"/> NO
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	<input type="radio"/> POSSIBLE	
Evidence of Overland Flow?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Irrigation/Runoff	<input type="radio"/> Other:	
Photo Taken	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Photo #		

Field Screening Samples Collected?

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	3.0	Ortho-PO ₄ (mg/L)	1
pH (pH units)		TURB (NTU)		COND (mS/cm)		11.95	1.50

Analytical Lab Samples Collected?

Yes ☒ No ☐

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Velocity		ft/sec	Time to Fill		sec	Depth		ft
Flow		gpm	Flow		gpm	Velocity		ft/sec
						Flow		gpm

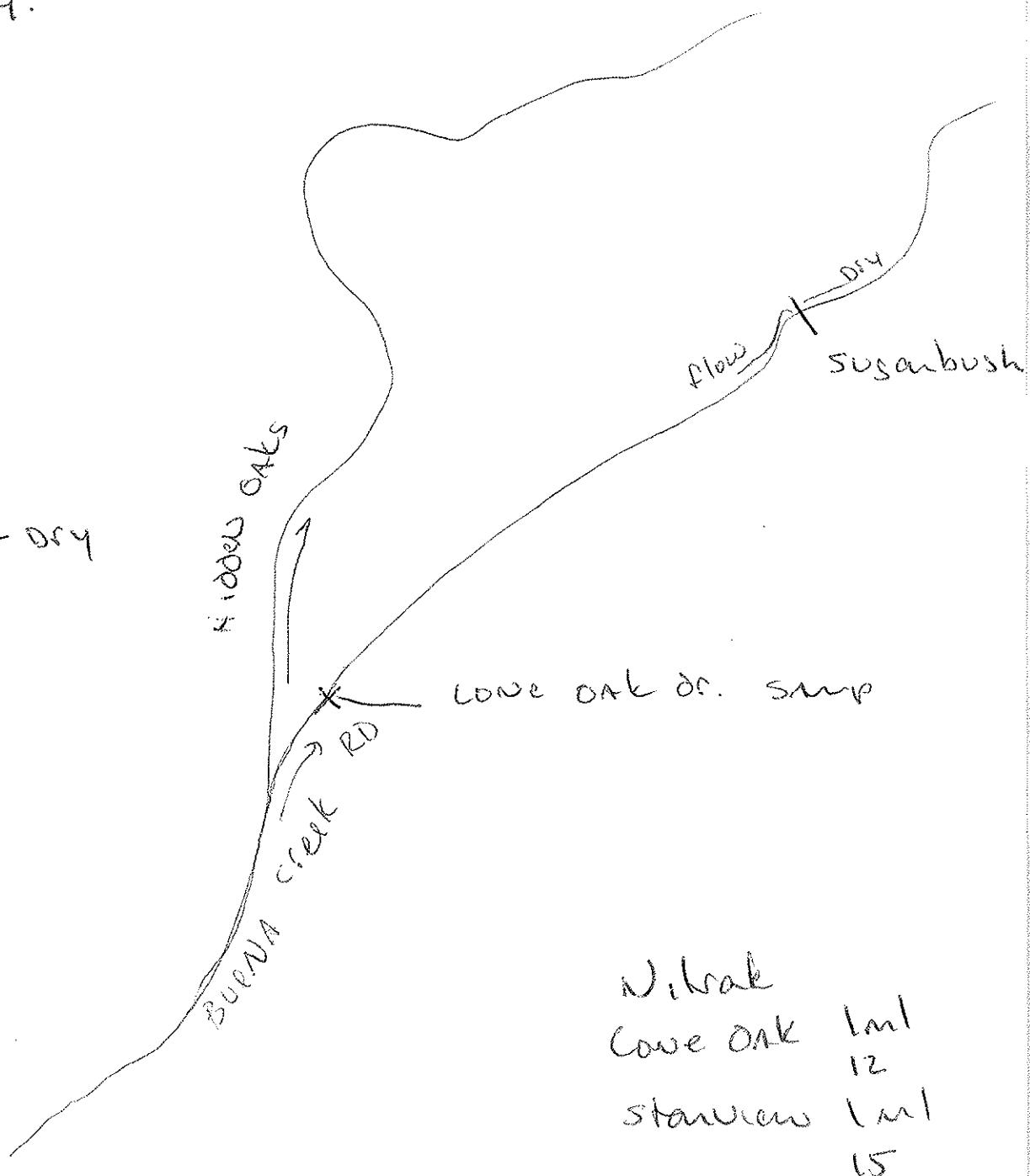
COMMENTS: color of water indicates use of herbicide
Dumping into creek.

Upstream AH-8

7-10-06

Further EAST, left as
sugarbush crossed creek,
spotty, dry.

1205 - dry



Vibrak
Love Oak 1ml
12
starview 1ml
15

monte Vista - N - 0.2

Amo 1.0 - mve to coloc of H2O
Phos 5.5
MBAS .25

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For subate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>Alt-8A</u>	Latitude	<u>33.76643</u>	Watershed	Hydrologic Unit	<u>Carlsbad</u>
Location	<u>634 Sycamore Ave</u>	Longitude	<u>117.21545</u>		Hydrologic Area	<u>Bojaia All</u>
Date	<u>7.6.06</u>	TB Page			Hydrologic Subarea (Optional)	<u>BUENA</u>
Time	<u>1030</u>	Observer	<u>cl</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	<u>None</u>	Yellow	Brown	White	Gray	Other			
Clarity	<u>Clear</u>	Slightly Cloudy	Opaque			Other			
Floatables	<u>None</u>	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	<u>None</u>	Limited	Normal	<u>Excessive</u>		Other			
Biology	<u>None</u>	<u>Insects</u>	<u>Algae</u>	<u>Fish</u>	<u>Snails</u>	<u>Mussels/Barnacles</u>	<u>Insect/Algae</u>	<u>Insect/Snail</u>	<u>Other clams</u>

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
------------	----------------	--------	-----	-------

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)	<u>22.4</u>	NH ₃ -N (mg/L)	<u>0.2</u>	NO ₃ -N (mg/L)	<u>15</u>	Ortho-PO ₄ (mg/L)	<u>2.3</u>
pH (pH units)	<u>8.10</u>	TURB (NTU)	<u>1</u>	COND (mS/cm)	<u>2.14</u>	MBAS	<u>0.25</u>

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	<u>3.0</u>	ft	Volume	<u>15</u>	mL	Diameter		ft
Depth	<u>3"</u>	ft	Time to Fill		sec	Depth		ft
Velocity	<u>1.06</u>	ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: excessive vegetation clogging suball
subate diluted 5 ml site H₂O 10 ml DI = 15 ml

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	Latitude	Watershed	Hydrologic Unit
Location	Longitude		Hydrologic Area
Date	TB Page		Hydrologic Subarea (Optional)
Time	Observer		Discharge Area (Optional)

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Clarity	None	Yellow	Brown	White	Gray	Other
Floatables	Clear	Slightly Cloudy	Opaque			Other
Deposits	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Vegetation	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Biology	None	Limited	Normal	Excessive		Other
	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other:
Photo Taken	Yes	No	Photo #	

Field Screening Samples Collected?	Yes	No
Water Temp (°C)	NH ₃ -N (mg/L)	NO ₃ -N (mg/L)
pH (pH units)	TURB (NTU)	COND (mS/cm)

Analytical Lab Samples Collected?	Yes	No
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width	Volume	Diameter
D	Time to Fill	Depth
Velocity	Flow	Velocity
Flow		Flow

COMMENTS: 5 ml site H2O 10 ml DI - 15 ml c.l.
1 ml site H2O 14 ml DI - 15 ml 0.0 x 15

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-8A vestra	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7.7.06	TB Page			Hydrologic Subarea (Optional)	
Time	1030	Observer	CC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	<input checked="" type="radio"/> Outlet	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear	Slightly Cloudy		Opaque	Other	
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive	Other	
Biology	None	Insects	Algae	Fish	Snails	Other
				Mussels/Barnacles	Insect/Algae	Insect/Snail

Water Flow	<input checked="" type="radio"/> Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	No	N/A	
Evidence of Overland Flow?	Yes	<input checked="" type="radio"/> No	Irrigation Runoff	Other:
Photo Taken	Yes	No	Photo #	

Field Screening Samples Collected?

Water Temp (°C)		NH3-N (mg/L)		NO3-N (mg/L)		Ortho-PO4 (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width	Volume	Diameter
Depth	Time to Fill	Depth
Velocity	Flow	Velocity
Flow		Flow

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-9	Latitude	N33.16013	Watershed	Hydrologic Unit	Carlsbad
Location	North of Shadowedge & Antigua	Longitude	W117.24574		Hydrologic Area	A.A.
Date	7.5.06	TB Page			Hydrologic Subarea (Optional)	A.14
Time	1430	Observer	SA/LL	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	<u>Parks</u>	Open
Land Use (Secondary) (Optional, greater than 10%)	<u>Residential</u>	Commercial	Industrial	Agricultural	<u>Parks</u>	Open None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High Outgoing
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Odor	None	<u>Musty</u>	Rotten Eggs	Chemical	Sewage	Other
Color	None	<u>Yellow</u>	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	<u>Bubbles/Foam</u>	Sheen	Fecal Matter	Other <u>leaf debris</u>
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	<u>Excessive</u>		Other
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
						<u>Insect/Algae</u> Insect/Snail Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	<u>Yes</u>	No	Photo #	<u>3</u>

Field Screening Samples Collected?	<u>Yes</u>	No					
Water Temp (°C)	<u>23.5</u>	NH ₃ -N (mg/L)	<u>0.4</u>	NO ₃ -N (mg/L)	<u>0.2</u>	Ortho-PO ₄ (mg/L)	<u>1.5</u>
pH (pH units)	<u>8.44</u>	TURB (NTU)	<u>34</u>	COND (mS/cm)	<u>2.00mS</u>	MBAS	<u>0.5</u>

Analytical Lab Samples Collected?	Yes	<u>No</u>	*Field dup 0.4 - 0.2 - 1.5
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LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	<u>3</u>	ft	Volume		ml	Diameter		ft
Depth	<u>1/4 in</u>	*	Time to Fill		sec	Depth		ft
Velocity	<u>1</u>	ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: dense vegetation; lots of mosquitoes

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

N 33° 09.205'
W 117° 14.513'

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-10	Latitude	(e.g., 33.41174)	Watershed	Hydrologic Unit	(e.g., 7.00)
Location	WEST of VIKING @ Green Oak Rd. under bridge	Longitude	(e.g., -117.35213)		Hydrologic Area	(e.g., 7.10) A.11
Date	6-19-06	TB Page			Hydrologic Subarea (Optional)	(e.g., 7.11) A.11
Time	1130	Observer	GA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only) Residential Commercial Industrial Agricultural Parks Open

Land Use (Secondary) (Optional, greater than 10%) Residential Commercial Industrial Agricultural Parks Open None

Conveyance (Check one only) Manhole Catch Basin Outlet Concrete Channel Natural Creek Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather Sunny Partly Cloudy Overcast Fog

Tide N/A Low Incoming High Outgoing Tide Height: _____ ft.

Last Rain < 72 hours < 72 hours

Rainfall None < 0.1" > 0.1"

WATER QUALITY CHARACTERISTICS

Odor None Musty Rotten Eggs Chemical Sewage Other

Color None Yellow Brown White Gray Other

Clarity Clear Slightly Cloudy Opaque Other

Floatables None Trash Bubbles/Foam Sheen Fecal Matter Other leaf debris & wood debris

Deposits None Sediment/Gravel Fine Particulates Stains Oily Deposits Other

Vegetation None Limited Normal Excessive Other

Biology None Insects Algae Fish Snails Mussels/Barnacles Insect/Algae Insect/Snail Other Ducks

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 2

Field Screening Samples Collected?

Yes No

Water Temp (°C)	20.8°C	NH ₃ -N (mg/L)	0	NO ₃ -N (mg/L)	6.0	Ortho-PO ₄ (mg/L)	0.4
pH (pH units)	8.21	TURB (NTU)	43	COND (mS/cm)	2.00	MPAS	0.50

Analytical Lab Samples Collected?

Yes No

@ 1130 Field Dug 0, 6.0, 0.4, 0.50

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	15	ft
Length	16 in.	ft
Velocity	2	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-13	Latitude	33.15948°	Watershed	Hydrologic Unit	carlsbad
Location	under bridge @ Catantail	Longitude	117.22532°		Hydrologic Area	A.14
Date	7.5.06	TB Page			Hydrologic Subarea (Optional)	A.14
Time	1400	Observer	SA/CC	Discharge Area (Optional)		

Land Use (Primary) (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☐ None ☒ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other *leaf & wood debris*

Deposits ☒ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other *debris*

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☐ Algae ☒ Snails/Fish ☐ Mussels/Barnacles ☒ Other *craydads*

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☒ Yes ☐ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 3 + 1 overland flow

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	23.8°C	NH ₃ -N (mg/L)	0.1	NO ₃ -N (mg/L)	3.5	React PO ₄ (mg/L)	0.3
pH (pH units)	8.48	TURB (NTU)	308	COND (mS/cm)	1.18mS	MBB	0.25

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	4	ft
Depth	5 in	ft
Velocity	1 ft / 1 sec	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: turbidity high b/c the Horiba stirs up sediment in bottom of creek bed

VISTA

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Turb

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>AH-13</u>	Latitude	<u>33.15948</u>	Watershed	Hydrologic Unit	<u>Carlisle</u>
Location	<u>La Cienega + Mapleleaf</u>	Longitude	<u>117.22532</u>		Hydrologic Area	<u>A-A</u>
Date	<u>7-6-06</u>	TB Page			Hydrologic Subarea (Optional)	<u>Buena</u>
Time	<u>0950</u>	Observer	<u>DO, LC</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	<u>Manhole</u>	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Clarity	<u>Clear</u>	Yellow	Brown	White	Gray	Other
Floatables	<u>None</u>	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other
Biology	<u>None</u>	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow Flowing Ponded Dry TidalDoes the storm drain flow reach the Receiving Water? Yes No N/AEvidence of Overland Flow? Yes No Irrigation Runoff Other: _____Photo Taken Yes No Photo # _____Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)	<u>25.0</u>	COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		ml
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Water level much lower today 3" or so.

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-17	Latitude	33.14008	Watershed	Hydrologic Unit	Catsbond
Location	end of Faraday just west of Brookhaven	Longitude	117.24635		Hydrologic Area	AH
Date	7-5-00	TB Page			Hydrologic Subarea (Optional)	AH
Time	1505	Observer	ALC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog	
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing
Last Rain	<u>> 72 hours</u>	< 72 hours			
Rainfall	<u>None</u>	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	<u>Fine Particulates</u>	Stains	Oily Deposits	Other <u>leaf debris</u>
Vegetation	None	Limited	Normal	Excessive		Other
Biology	None	<u>Insects</u>	Algae	Fish	<u>Snails</u>	Other
				Mussels/Barnacles	Insect/Algae	Insect/Snail

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: evidence in residential neighborhood just north

Photo Taken Yes No Photo # 3

Field Screening Samples Collected? Yes No

Water Temp (°C)	27.10	NH ₃ -N (mg/L)	0.9	NO ₃ -N (mg/L)	1.5	Ortho-PO ₄ (mg/L)	0.6
pH (pH units)	8.57	TURB (NTU)	100	COND (mS/cm)	3.17mS	MBAS	0.50

Analytical Lab Samples Collected? Yes No

LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	ft
Depth	ft
Velocity	ft/sec
Flow	gpm

Filling a Bottle or Known Volume

Volume	mL
Time to Fill	sec
Flow	gpm

Flowing Pipe

Diameter	ft
Depth	ft
Velocity	ft/sec
Flow	gpm

COMMENTS: _____

Lat^N 33° 08.150'
Long W 117° 14.056'

San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	AH-21	Latitude	(e.g., 33.41174)	Watershed	Hydrologic Unit	(e.g., 7.00)
Location	end of Melrose / SW of road	Longitude	(e.g., -117.35213)		Hydrologic Area	(e.g., 7.10) 4.1
Date	10.19.06	TB Page			Hydrologic Subarea (Optional)	(e.g., 7.11) 4.1
Time	1020	Observer	GA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

runoff CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other leaf debris			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	

Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other:
Photo Taken	Yes	No	Photo # 3	(2 of outlet, 1 of downstream) / 2 additional photos of water being pumped into street

Field Screening Samples Collected?

Yes

No

Water Temp (°C)	24.9°C	NH ₃ -N (mg/L)	0.4	NO ₃ -N (mg/L)	0.05	Ortho-PO ₄ (mg/L)	0.1
pH (pH units)	7.93	TURB (NTU)	22	COND (mS/cm)	0.064	MBAS	0.25

Analytical Lab Samples Collected?	Yes	No	0.1030
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
I		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume	2.0 gallons	
Time to Fill	1 second	sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: large amount of flow - due to a fire hose connected to a water main in street ending curb inlet with conveyance

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-1	Latitude	33.18273 N	Watershed	Hydrologic Unit	Cartagena
Location	behind 4241 Tiberon	Longitude	117.20393 W		Hydrologic Area	BV Creek
Date	6-23-06	TB Page			Hydrologic Subarea (Optional)	BV Creek
Time	0835	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

runoff CHARACTERISTICS

Color	None	Musty	Rotten Eggs		Chemical	Sewage	Other		
Color	None	Yellow	Brown		White	Gray	Other		
Clarity	Clear		Slightly Cloudy		Opaque		Other		
Floatables	None	Trash	Bubbles/Foam		Green particles	Fecal Matter	Other		
Deposits	None	Sediment/Gravel	Fine Particulates		Stains	Oily Deposits	Other		
Vegetation	None	Limited	Normal		Excessive		Other		
Biology	None	Insects	Algae	Fish	Snails	Mussels/ Barnacles	Insect/ Algae	Insect/ Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo # _____	

Field Screening Samples Collected? Yes No

Water Temp (°C)	<u>9.8</u>	NH ₃ -N (mg/L)	<u>0.4</u>	NO ₃ -N (mg/L)	<u>0 (BD)</u>	Ortho-PO ₄ (mg/L)	<u>0.3</u>
pH (pH units)	<u>8.82</u>	TURB (NTU)	<u>5</u>	COND (mS/cm)	<u>5.75</u>	MPAS	<u>3.0 mg/L</u>

Analytical Lab Samples Collected?	Yes	<u>No</u>	<u>9.8</u>	<u>0.4</u>	<u>BD</u>	<u>0.3</u>
			<u>8.80</u>	<u>4</u>	<u>5.81</u>	<u>3.0</u>

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Height		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For MBAS

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-1	Latitude	33.18073	Watershed	Hydrologic Unit	
Location	behind 4241 T. Brown	Longitude	117.20393		Hydrologic Area	
Date	6-23-06	TB Page			Hydrologic Subarea (Optional)	
Time	1400	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

P "OFF" CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	<u>None</u>	<u>Yellow</u>	Brown	White	Gray	Other			
Clarity	<u>Clear</u>	Slightly Cloudy	Opaque			Other			
Floatables	None	Trash	Bubbles/Foam	<u>Sheen</u>	Fecal Matter	Other			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other			
Biology	None	Insects	<u>Algae</u>	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	Yes	<u>No</u>	Photo # _____	

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)		<u>MBAS</u>	<u>1.0 mg/L</u>

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
E		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

ICAD Follow-Up For MBAS

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-1	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7.11.06	TB Page			Hydrologic Subarea (Optional)	
Time	1330	Observer	LL	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Shed	Fecal Matter	Other			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
------------	---------	--------	-----	-------

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)		MBAS	75

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		ml	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: looked around saw nothing. Check behind buswess

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-2	Latitude	33.18234	Watershed	Hydrologic Unit	Canal/Island
Location	channel behind 4241 Tiburon	Longitude	117.28390		Hydrologic Area	BV Creek
Date	6-23-06	TB Page			Hydrologic Subarea (Optional)	BV Creek
Time	0902	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	<u>Concrete Channel</u>	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	<u>Overcast</u>	Fog	
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	<u>None</u>	< 0.1"	> 0.1"		

runoff CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	<u>Yellow</u>	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	<u>Fine Particulates</u>	Stains	Oily Deposits	Other
Vegetation	None	<u>Limited</u>	Normal	Excessive		Other
Biology	None	Insects	<u>Algae</u>	Fish	Snails	Mussels/Barnacles
				Insect/Algae	Insect/Snail	Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
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Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected?

Water Temp (°C)	20.2	NH ₃ -N (mg/L)	0.0	NO ₃ -N (mg/L)	1.0	Ortho-PO ₄ (mg/L)	0.15
pH (pH units)	8.68	TURB (NTU)	4	COND (mS/cm)	2.03	MPAS (mg)	0.25

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width _____ ft	Volume _____ mL	Diameter _____ ft
C _____ ft	Time to Fill _____ sec	Depth _____ ft
Velocity _____ ft/sec	Flow _____ gpm	Velocity _____ ft/sec
Flow _____ gpm		Flow _____ gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BU-4	Latitude	33.18775	Watershed	Hydrologic Unit	Carlsbad
Location	1740 Hadruck	Longitude	117.27485		Hydrologic Area	BU Creek
Date	7.6.06	TB Page			Hydrologic Subarea (Optional)	BU Creek
Time	1230	Observer	DB/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog
Tide	N/A	Low	Incoming	High
Last Rain	> 72 hours	< 72 hours		
Rainfall	None	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	<u>Chemical</u>	Sewage	Other <u>salt</u>
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>
Deposits	None	<u>Sediment/Gravel</u>	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	<u>Insects</u>	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 1

Field Screening Samples Collected? Yes No

Water Temp (°C)	24.0	NH3-N (mg/L)	0.3	NO3-N (mg/L)	0.3	Ortho-PO4 (mg/L)	0.6
pH (pH units)	8.94	TURB (NTU)	12	COND (mS/cm)	172	MBAS	0.5

Analytical Lab Samples Collected? Yes No * Field Dup 0.4, 0.3, 0.6

FLOW ESTIMATION WORKSHEETS

0.5

Flowing Creek or Box Culvert

Width		ft
h		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Field dup on reverse

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-6	Latitude	33.19384	Watershed	Hydrologic Unit	carlsbad
Location	Breeze Hill + Hacienda	Longitude	117.26051		Hydrologic Area	BV creek
Date	6-23-06	TB Page	.		Hydrologic Subarea (Optional)	BV creek
Time	1044	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☒ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☐ None ☒ Trash ☐ Bubbles/Foam ☒ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☐ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☐ Yes ☐ No ☒ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 3

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	21.1	NH ₃ -N (mg/L)	0.2	NO ₃ -N (mg/L)	3.0	React PO ₄ (mg/L)	0.4
pH (pH units)	8.60	TURB (NTU)	30	COND (mS/cm)	1.67	MPA	0.25

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Field dup done
NH₃-N: 0.2 mg/L MBAS: 0.05 mg/L R-PO₄: 0.3 mg/L NO₃-N: 3.0

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

analytical

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-6	Latitude	33.19348	Watershed	Hydrologic Unit	conts
Location	Breeze Hill + Hacienda	Longitude	117.2080		Hydrologic Area	
Date	6-27-06	TB Page			Hydrologic Subarea (Optional)	
Time	1020	Observer	JS (SA)		Discharge Area (Optional)	

Land Use (Primary) (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☐ Sunny ☐ Partly Cloudy ☒ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☐ > 72 hours ☒ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☐ Clear ☒ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☐ None ☒ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☒ Other _____

Deposits ☐ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☐ Insects ☐ Algae ☒ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☐ Yes ☒ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☐ Yes ☒ No Photo # _____

Field Screening Samples Collected? ☒ Yes ☐ No

field rep ->

Water Temp (°C)	21.6	NH ₃ -N (mg/L)	0.1	NO ₃ -N (mg/L)	4	React PO ₄ (mg/L)	0.2
pH (pH units)	8.23	TURB (NTU)	48	COND (mS/cm)	1.64	MBAS	0.25

Analytical Lab Samples Collected? ☒ Yes ☐ No

sample clarity

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Filling a Bottle or Known Volume

Flowing Pipe

Width		n
Depth		n
Velocity		ft/sec
Flow		gpm

Volume		mL
Time to Fill		sec
Flow		gpm

Diameter		n
Depth		n
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

Availability Follow-up

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Best

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-6	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7.19.06	TB Page			Hydrologic Subarea (Optional)	
Time	1040	Observer	ce	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
------------	---------	--------	-----	-------

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☐ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-7	Latitude	33.19392	Watershed	Hydrologic Unit	
Location	At Hacienda across from carwash	Longitude	117.25446		Hydrologic Area	
Date	6-29-06	TB Page			Hydrologic Subarea (Optional)	
Time	1445	Observer	SA/JS	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary)
(Optional, greater than 10%)

☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance
(Check one only)

☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☐ > 72 hours ☒ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☐ Musty ☐ Rotten Eggs ☒ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☐ Yellow ☒ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☐ Clear ☒ Slightly Cloudy ☒ Opaque ☐ Other _____

Floatables ☐ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☒ Other (specify) _____

Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☐ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☒ Other (specify) _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # _____

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	24.3	NH ₃ -N (mg/L)	0.3	NO ₃ -N (mg/L)	2.4*	React PO ₄ (mg/L)	0.3
pH (pH units)	8.63	TURB (NTU)	241	COND (mS/cm)	1.72	MBAS (mg/L)	0.25

Analytical Lab Samples Collected? ☐ Yes ☒ No

24.2 0.2 2.4 0.3
8.50 240 1.70 0.25

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	4	ft
Depth	1	ft
Velocity	4 sec/5 ft	ft/sec
Flow	2	gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: * First sample was above detection. Second sample (3:1) was 0.3 water was very cloudy & brown; difficult to see even though only 2 ft deep

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-7A	Latitude	33.19295	Watershed	Hydrologic Unit	Carlisle
Location	Melrose & Hancock	Longitude	-117.25370		Hydrologic Area	BV Creek
Date	7-6-06	TB Page			Hydrologic Subarea (Optional)	BV Creek
Time	1215	Observer	DO/CC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	<u>Manhole</u>	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear	Slightly Cloudy	Opaque						
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive	Other				
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow: Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

~~Box Culvert~~
Flowing Pipe

Diameter	6" sample major	ft
Depth	1" sample	ft
Velocity	1.0/sec sample	ft/sec
Flow		gpm

COMMENTS: most, no sampleable H₂O. Channel mkt grade trash strainers still broken.

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

analytical

☐ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-8	Latitude	33.20338	Watershed	Hydrologic Unit	carlsbad
Location	Oliver + Geefing (across from bus stop)	Longitude	117.24533		Hydrologic Area	BV creek
Date	6-29-06	TB Page			Hydrologic Subarea (Optional)	N Santa Fe
Time	0945	Observer	JS/SA		Discharge Area (Optional)	

Land Use (Primary) (Check one only) ☒ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☒ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☐ > 72 hours ☒ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☒ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☒ Limited ☐ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☐ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Pondered ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 3

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	24.7	NH ₃ -N (mg/L)	0	NO ₃ -N (mg/L)	0.0	React PO ₄ (mg/L)	0.2
pH (pH units)	9.46	TURB (NTU)	3	COND (mS/cm)	1.43 mS	MBAS	0.25

Analytical Lab Samples Collected? ☒ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: wide concrete channel w/ lots of algae covering bottom, pH not followed up because field team determined the cause to be the excessive photosynthesis created by algae. Also ammonia was zero.

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Routine Investigation

IC/ID Follow-Up For Bact

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-8	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7.19.06	TB Page			Hydrologic Subarea (Optional)	
Time	1100	Observer	CC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Shells	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo #	_____

Field Screening Samples Collected?

Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☐ Routine Investigation

☒ IC/ID Follow-Up For PH

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BV-8</u>	Latitude		Watershed	Hydrologic Unit	
Location	<u>Blue/Green</u>	Longitude			Hydrologic Area	
Date	<u>9.12.06</u>	TB Page			Hydrologic Subarea (Optional)	
Time	<u>1330</u>	Observer	<u>CC</u>	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary)
(Optional, greater than 10%)

☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance
(Check one only)

☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog
Tide ☐ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.
Last Rain ☐ > 72 hours ☐ < 72 hours
Rainfall ☐ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____
Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____
Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____
Floatables ☐ None ☒ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☒ Other leaf debris
Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____
Vegetation ☐ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other _____
Biology ☐ None ☐ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____
Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal
Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A
Evidence of Overland Flow? ☐ Yes ☐ No ☒ Irrigation Runoff ☐ Other: _____
Photo Taken ☐ Yes ☒ No Photo # _____

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		React PO ₄ (mg/L)	
pH (pH units)	<u>7.73</u>	TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-10	Latitude	33.20268°	Watershed	Hydrologic Unit	Carlsbad
Location	NW corner of Escandido & Eucalyptos	Longitude	117.23618°		Hydrologic Area	BV Creek
Date	7.5.00	TB Page			Hydrologic Subarea (Optional)	Eucalyptos
Time	1240	Observer	SA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="radio"/> Residential	<input checked="" type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input checked="" type="radio"/> Residential	<input checked="" type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance (Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input type="radio"/> Outlet	<input checked="" type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
					<input type="radio"/> Curb/Gutter	

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours		
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"	

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Floatables	<input type="radio"/> None	<input checked="" type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input type="radio"/> None	<input checked="" type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive	<input type="radio"/> Other	
Biology	<input type="radio"/> None	<input checked="" type="radio"/> Insects	<input checked="" type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal
------------	--	------------------------------	---------------------------	-----------------------------

Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 3

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	25.8	NH ₃ -N (mg/L)	0.1	NO ₃ -N (mg/L)	7.5 *	Ortho-PO ₄ (mg/L)	0.2
pH (pH units)	8.73	TURB (NTU)	33	COND (mS/cm)	1.77mS	MBAS	0.25

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width	Volume	Diameter
Depth	Time to Fill	Depth
Velocity	Flow	Velocity
Flow		Flow

COMMENTS: * Nitrate diluted to 5mL → 2.5 x 3

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-11	Latitude	33.20554	Watershed	Hydrologic Unit	San Diego
Location	under foot bridge in middle fork	Longitude	117.23574		Hydrologic Area	San Diego Creek
Date	6-23-06	TB Page			Hydrologic Subarea (Optional)	N Fork San Diego Creek
Time	1124	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>(None)</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	<u>None</u>	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	<u>Sediment/Gravel</u>	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	Insects	<u>Algae</u>	Fish	Snails	Mussels/Barnacles
				Insect/Algae	Insect/Snail	Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	<u>N/A</u>	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	<u>Yes</u>	No	Photo #	_____

Field Screening Samples Collected?	Yes	No	* Above detection (75) can't return in time will retest Monday
Water Temp (°C)	20.0	NH ₃ -N (mg/L)	0.2
pH (pH units)	8.75	TURB (NTU)	0
		NO ₃ -N (mg/L)	5.5
		COND (mS/cm)	188
		Ortho-PO ₄ (mg/L)	0.2
		MBAS (mg/L)	0.25

Analytical Lab Samples Collected?	Yes	<u>No</u>
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Velocity		ft/sec	Time to Fill		sec	Depth		ft
Flow		gpm	Flow		gpm	Velocity		ft/sec
						Flow		gpm

COMMENTS: Nitrate above 5, but less than 10, so below action level, approx 5.5, no follow up needed

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-12	Latitude	33.20905	Watershed	Hydrologic Unit	Carlsbad
Location	Bengal terrace park	Longitude	117.22402		Hydrologic Area	60 Creek
Date	7-5-00	TB Page			Hydrologic Subarea (Optional)	Football/Valle
Time	1230	Observer	SLC		Discharge Area (Optional)	terrace

Land Use (Primary) (Check one only) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☐ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☐ Insects ☐ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☐ Yes ☒ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☒ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 4

Field Screening Samples Collected? ☐ Yes ☒ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		React PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	mL	Diameter	ft
Depth	ft	Time to Fill	sec	Depth	ft
Velocity	ft/sec	Flow	gpm	Velocity	ft/sec
Flow	gpm			Flow	gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/D Follow-Up For Time Pit

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BU-14</u>	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	<u>7-17-06</u>	TB Page			Hydrologic Subarea (Optional)	
Time	<u>0920</u>	Observer			Discharge Area (Optional)	

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	<u>Outlet</u>	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

WATERSHED CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	<u>None</u>	Yellow	Brown	White	Gray	Other			
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other			
Floatables	<u>None</u>	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other			
Biology	<u>None</u>	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	<u>Yes</u>	No	Photo #	_____

Field Screening Samples Collected?	<u>Yes</u>	No					
Water Temp (°C)	<u>31.2</u>	NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)	<u>8.95</u>	TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Height		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: Flow across street drain is uncertain of direction.

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-14 B (Bottom pipe)	Latitude	33.22335°	Watershed	Hydrologic Unit	Carlisle
Location	corner of Santa Fe & Weston	Longitude	117.24632°		Hydrologic Area	BV Creek
Date	7.5.06	TB Page			Hydrologic Subarea (Optional)	N Santa Fe
Time	1055	Observer	JA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	<u>PIPE INTO Catch Basin</u>	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	<u>None</u>	<u>Yellow</u>	Brown	White	Gray	Other			
Clarity	<u>Clear</u>	Slightly Cloudy	Opaque	Other					
Floatables	<u>None</u>	Trash	<u>Bubbles/Foam</u>	Sheen	Fecal Matter	Other			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	<u>None</u>	Limited	Normal	Excessive	Other				
Biology	<u>None</u>	Insects	<u>Algae</u>	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____
 Photo Taken Yes No Photo # 5 → DRY but evidence of chronic runoff

Field Screening Samples Collected? Yes No

Water Temp (°C)	<u>25.3</u>	NH ₃ -N (mg/L)	<u>0.4</u>	NO ₃ -N (mg/L)	<u>0.8</u>	Ortho-PO ₄ (mg/L)	<u>0</u>
pH (pH units)	<u>8.55</u>	TURB (NTU)	<u>2</u>	COND (mS/cm)	<u>3.58 mS</u>	MBAS	<u>0.50</u>

Analytical Lab Samples Collected? Yes No

LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	<u>500</u> mL	Diameter	ft
Depth	ft	Time to Fill	<u>20</u> sec	Depth	ft
Velocity	ft/sec	Flow	gpm	Velocity	ft/sec
Flow	gpm			Flow	gpm

COMMENTS: see drawing of pipe location on other BV-14 data sheet

VISTA

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For pH & Temp

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV14-T	Latitude	33.22335	Watershed	Hydrologic Unit	San Antonio
Location	3 Santa Fe Rd Western Creek	Longitude	117.24632		Hydrologic Area	310 Creek
Date	7-6-06	TB Page			Hydrologic Subarea (Optional)	4 Santa Fe
Time	0900	Observer	LC+DO		Discharge Area (Optional)	

Land Use (Primary)
(Check one only)☒ Residential☐ Commercial☐ Industrial☐ Agricultural☐ Parks☐ Open

Land Use (Secondary)

(Optional, greater than 10%)

☐ Residential☐ Commercial☐ Industrial☐ Agricultural☐ Parks☐ Open☐ None

Conveyance

(Check one only)

☐ Manhole☒ Catch Basin☐ Outlet☐ Concrete Channel☐ Natural Creek☐ Earthen Channel☐ Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

Tide Height: _____ ft.

RUNOFF CHARACTERISTICS

or	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear		Slightly Cloudy	Opaque		Other
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive		Other
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail
						Other

Water Flow ☒ Flowing ☐ Ponded ☐ Dry ☐ TidalDoes the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/AEvidence of Overland Flow? ☒ Yes ☐ No ☐ Irrigation Runoff ☐ Other: _____Photo Taken ☒ Yes ☐ No ☐ Photo # _____Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	29.8	NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)	9.11	TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? ☐ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
h		ft
velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

(Routine Investigation)

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-14T * (top pipe)	Latitude	N 33.22336°	Watershed	Hydrologic Unit	Cantabrigia
Location	corner of N. Santa Fe & Weston	Longitude	W 117.24132°		Hydrologic Area	BV Creek
Date	7.5.06	TB Page			Hydrologic Subarea (Optional)	N-Santa Fe
Time	1055	Observer	SA/LC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance (Check one only)	<input type="radio"/> Manhole	<input checked="" type="radio"/> Catch Basin	<input type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	<input checked="" type="radio"/> < 72 hours	<input type="radio"/> < 72 hours		
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"	

RUNOFF CHARACTERISTICS

Odor	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Color	<input checked="" type="radio"/> None	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Slightly Cloudy		<input type="radio"/> Opaque	<input type="radio"/> Other	
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive	<input type="radio"/> Other	
Biology	<input checked="" type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Irrigation Runoff	<input type="radio"/> Other: _____
Photo Taken	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Photo # <u>5</u>	

Field Screening Samples Collected?		<input checked="" type="radio"/> Yes	<input type="radio"/> No
Water Temp (°C)	30.2	NH ₃ -N (mg/L)	0.1
pH (pH units)	9.11	TURB (NTU)	8
		NO ₃ -N (mg/L)	0.4
		COND (mS/cm)	2.04 mS
		Ortho-PO ₄ (mg/L)	MBAS
			0.25

Analytical Lab Samples Collected? Yes ☒ No ☐

LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	ft		Volume	500	mL	Diameter	ft	
Depth	ft		Time to Fill	40	sec	Depth	ft	
Velocity	ft/sec		Flow		gpm	Velocity	ft/sec	
Flow	gpm					Flow	gpm	

COMMENTS: pH & temp minutely above action level which could be from the pipe running directly under the street
* see drawing on reverse →

Revised 4/20/2004, 4/15/2005, 4/19/2006

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-15	Latitude	N 33° 13' 00" 33.21770°	Watershed	Hydrologic Unit	San Diego
Location	Corona & N. Cetus	Longitude	W 117° 11' 00" 117.24339°		Hydrologic Area	BV Creek
Date	6-20-06	TB Page			Hydrologic Subarea (Optional)	W. San Diego
Time	0915	Observer	GA/LC	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary)
(Optional, greater than 10%)

☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None

Conveyance
(Check one only)

☐ Manhole ☐ Catch Basin ☒ Outlet ☐ Concrete Channel ☐ Natural Creek ☐ Earthen Channel ☐ Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☒ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing **Tide Height:** _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

runoff CHARACTERISTICS

Color ☐ None ☐ Musty ☒ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other

Color ☐ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other

Clarity ☐ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other

Floatables ☐ None ☒ Trash ☐ Bubbles/Foam ☐ Sheen ☒ Fecal Matter ☐ Other *tree, lots of garbage*

Deposits ☐ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other

Vegetation ☐ None ☐ Limited ☐ Normal ☒ Excessive ☐ Other

Biology ☐ None ☐ Insects ☐ Algae ☐ Fish ☐ Snails ☐ Mussels/Barnacles ☐ Insect/Algae ☐ Insect/Snail ☐ Other

Water Flow ☐ Flowing ☐ Ponded ☒ Dry ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☒ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No **Photo #** 3

Field Screening Samples Collected?

☐ Yes ☒ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

☒ Yes ☒ No *NO GUTS DRY*

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Height		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

analytical

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-18	Latitude	N 33° 21' 02.2"	Watershed	Hydrologic Unit	Carlsbad
Location	in Moonlight amphitheatre park New corner next to fence	Longitude	W 117° 22' 44.6"		Hydrologic Area	BV Creek
Date	6-29-06	TB Page			Hydrologic Subarea (Optional)	Footprint
Time	1030	Observer	AIJS		Discharge Area (Optional)	

Land Use (Primary) (Check one only) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☒ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☐ > 72 hours ☒ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☒ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☐ Algae ☒ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 3

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	20.3°C	NH ₃ -N (mg/L)	0.1	NO ₃ -N (mg/L)	9.07*	React PO ₄ (mg/L)	0.7
pH (pH units)	8.44	TURB (NTU)	152*	COND (mS/cm)	1.88	MBAS	0.2

Analytical Lab Samples Collected? ☒ Yes ☐ No @ 1030

FLOW ESTIMATION WORKSHEETS

*Flowing Creek or Box Culvert

Width	2	ft
Depth	6 in	ft
Velocity	1	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: *the water was clear, the water meter was reading the sediment that was stirred up by our ~~presence~~ disturbance

XX 1st sample above detection. 2nd dilution read 4.5
15ml sample, 15ml DI

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Routine Investigation

~~Follow-Up~~ Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-19	Latitude	N 33.21364°	Watershed	Hydrologic Unit	Carlisle
Location	Behind 10500 Vista Way	Longitude	W 117.22957°		Hydrologic Area	BV Creek
Date	6-20-06	TB Page			Hydrologic Subarea (Optional)	N Fork BV-creek
Time	1005	Observer	8/1C	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

Residential ☐ Commercial ☒ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐

Land Use (Secondary)
(Optional, greater than 10%)

Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open ☐ None ☐

Conveyance
(Check one only)

Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☐ Natural Creek ☒ Earthen Channel ☐ Curb/Gutter ☐

ATMOSPHERIC CONDITIONS

Weather Sunny ☐ Partly Cloudy ☐ Overcast ☒ Fog ☐

Tide N/A ☒ Low ☐ Incoming ☐ High ☐ Outgoing ☐ **Tide Height:** _____ ft.

Last Rain > 72 hours ☒ < 72 hours ☐

Rainfall None ☒ < 0.1" ☐ > 0.1" ☐

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	<u>Sediment/Gravel</u>	Fine Particulates	Stains	Oily Deposits	Other <u>sand</u>
Vegetation	None	Limited	Normal	<u>Excessive</u>		Other
Biology	None	<u>Insects</u>	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail
						Other <u>craydocks</u>

Water Flow Flowing ☒ Ponded ☐ Dry ☐ Tidal ☐

Does the storm drain flow reach the Receiving Water? Yes ☒ No ☐ N/A ☐

Evidence of Overland Flow? Yes ☐ No ☒ Irrigation Runoff ☐ Other: _____

Photo Taken Yes ☒ No ☐ **Photo #** 2

Field Screening Samples Collected?

Yes ☒ No ☐ diluted to 1 ml of sample

Water Temp (°C)	<u>20.6</u>	NH ₃ -N (mg/L)	<u>0.1</u>	NO ₃ -N (mg/L)	<u>15</u>	Ortho-PO ₄ (mg/L)	<u>0.1</u>
pH (pH units)	<u>8.167</u>	TURB (NTU)	<u>3</u>	COND (mS/cm)	<u>1.48</u>	MBAS	<u>0.5</u>

Analytical Lab Samples Collected?

Yes ☒ No ☐ @ 1015 * Build Dye 0.2, 15, 0.1

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	<u>4</u>	ft	Volume		mL	Diameter		ft
Depth	<u>6 in</u>	ft	Time to Fill		sec	Depth		ft
Velocity	<u>2 sec 1 ft</u>	ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: Site moved 50 yards upstream due to overgrown vegetation / possible homeless area

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nitate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-19	Latitude	33.21364	Watershed	Hydrologic Unit	contiged
Location	Behind 1056 Vista Way	Longitude	117.22957		Hydrologic Area	BV Creek
Date	6.20.06	TB Page			Hydrologic Subarea (Optional)	N Fork BV Creek
Time	1440	Observer	SA MW	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other				
Color	<u>None</u>	Yellow	Brown	White	Gray	Other				
Clarity	<u>Clear</u>	Slightly Cloudy	Opaque			Other				
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other				
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other				
Vegetation	None	Limited	Normal	<u>Excessive</u>		Other				
Biology	None	<u>Insects</u>	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other	<u>cnidarians</u>

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
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Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	37.5	Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
D		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: Nitate diluted to 1 mL w/ 14 mL DI F.V. = 15 mL Result 15 PF.

San Diego Stormwater Copermitees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nikeate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BU-19	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	6.22.06	TB Page			Hydrologic Subarea (Optional)	
Time	1439	Observer	cc	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<u>Commercial</u>	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	> 72 hours	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear		Slightly Cloudy	Opaque		Other
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive		Other
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo #	_____

Field Screening Samples Collected?

Yes

No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	15	Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

Yes

No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
I		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: upstream, @ mobile home park - lots of critters & grasses @ edge of creek, possible discharge of water into creek causing high nitrate.

San Diego Stormwater Copermitees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-24	Latitude	33.21573	Watershed	Hydrologic Unit	Carlsbad
Location	1427 Road Will Dr. south side of rd.	Longitude	117.2906		Hydrologic Area	BV Creek
Date	6-29-06	TB Page			Hydrologic Subarea (Optional)	foothill / vale lower
Time	1310	Observer	SA/JS		Discharge Area (Optional)	

Land Use (Primary) (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☒ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Chz

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft. ,

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☐ Musty ☒ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☐ None ☐ Trash ☒ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☒ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☐ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 4 → hard to see b/c fig tree blocking out lot

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	27.6*	NH ₃ -N (mg/L)	0.2	NO ₃ -N (mg/L)	9.0**	React PO ₄ (mg/L)	0.6
pH (pH units)	8.92	TURB (NTU)	3	COND (mS/cm)	1.80	MBAS	0.5

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: *temp in hot bucket on a very hot day using BPI, considered below action.
 *1st nitrate reading above detection second 3rd detection was 3.0

San Diego Stormwater Copermitees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

☒ IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-25	Latitude	33.21067	Watershed	Hydrologic Unit	Carlsbad
Location	1661 Foothill Dr.	Longitude	117.21596		Hydrologic Area	BVCreek
Date	6-29-06	TB Page			Hydrologic Subarea (Optional)	Foothill Valley
Time	1345	Observer	SA/JS	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary)
(Optional, greater than 10%)

☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance
(Check one only)

☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☐ > 72 hours ☒ < 72 hours

Rainfall ☐ None ☒ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☐ None ☐ Musty ☒ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☐ Yellow ☒ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☐ Clear ☐ Slightly Cloudy ☒ Opaque ☐ Other _____

Floatables ☐ None ☐ Trash ☒ Bubbles/Foam ☒ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☐ None ☐ Sediment/Gravel ☒ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☒ None ☒ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☐ Yes ☐ No ☒ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # 1

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	31.9	NH ₃ -N (mg/L)	0.6	NO ₃ -N (mg/L)	0	React PO ₄ (mg/L)	0
pH (pH units)	9.37	TURB (NTU)	2115.196	COND (mS/cm)	1.89	MBAS (mg/L) 0.75	

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: large pond w/ pollen green covering the entire surface strong rotten egg odor sediment particulates in water appeared black

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For pH & temp

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BV-25	Latitude	33.21267	Watershed	Hydrologic Unit	Carlsbad
Location	11401 Foothill Dr.	Longitude	117.21596		Hydrologic Area	BW Creek
Date	6-30-06	TB Page			Hydrologic Subarea (Optional)	Goodwill Lake Terrace
Time	1255	Observer	SA/CH	Discharge Area (Optional)		

Land Use (Primary) (Check one only) Residential Commercial Industrial Agricultural Parks Open

Land Use (Secondary) (Optional, greater than 10%) Residential Commercial Industrial Agricultural Parks Open None

Conveyance (Check one only) Manhole Catch Basin Outlet Concrete Channel Natural Creek Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather Sunny Partly Cloudy Overcast Fog

Tide N/A Low Incoming High Outgoing Tide Height: _____ ft.

Last Rain > 72 hours < 72 hours

Rainfall None < 0.1" > 0.1"

RUNOFF CHARACTERISTICS

Color	None	Musty	<u>Rotten Eggs</u>	Chemical	Sewage	Other
Color	None	Yellow	<u>Brown</u>	White	Gray	Other
Clarity	Clear		Slightly Cloudy	<u>Opaque</u>		Other
Floatables	None	Trash	Bubbles/Foam	<u>Sheen</u>	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	<u>Insects</u>	<u>Algae</u>	<u>Fish</u>	Snails	Mussels/Barnacles
					Insect/Algae	Insect/Snail

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # see previous day 6-29-06

Field Screening Samples Collected?

Yes No

Water Temp (°C)	32.4	NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)	8.28	TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: water temp high but water not flowing and in direct sunlight

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/D Follow-Up For Temp / pH

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BU-25</u>	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	<u>7.13.04</u>	TB Page			Hydrologic Subarea (Optional)	
Time	<u>1145</u>	Observer	<u>LL</u>	Discharge Area (Optional)		

Land Use (Primary) Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input checked="" type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours		
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"	

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive		<input type="radio"/> Other
Biology	<input checked="" type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail

Water Flow ☒ Flowing ☐ Pooled ☐ Dry ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☒ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # _____

Is Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	<u>29.1</u>	NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)	<u>9.05</u>	TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Comments: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BVC-1</u>	Latitude	<u>N 33.2222°</u>	Watershed	Hydrologic Unit	<u>San Diego</u>
Location	<u>NW corner of Vista Royalodge trailer pk</u>	Longitude	<u>W 117.2281°</u>		Hydrologic Area	<u>BV Creek</u>
Date	<u>6-20-04</u>	TB Page			Hydrologic Subarea (Optional)	<u>N Fork BV Creek</u>
Time	<u>0930</u>	Observer	<u>RA/LC</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	<u>Concrete Channel</u>	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	<u>Overcast</u>	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other			
Clarity	<u>Clear</u>	Yellow	Brown	White	Gray	Other			
Floatables	<u>None</u>	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other			
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other			
Biology	<u>None</u>	Insects	Algae	Fish	Snails	Mussels/Barnacles	<u>Insect/Algae</u>	Insect/Snail	Other

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
------------	----------------	--------	-----	-------

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 2

Field Screening Samples Collected?

Yes No

Water Temp (°C)	<u>22.0</u>	NH ₃ -N (mg/L)	<u>0.3</u>	NO ₃ -N (mg/L)	<u>12</u>	Ortho-PO ₄ (mg/L)	<u>0.2</u>
pH (pH units)	<u>8.45</u>	TURB (NTU)	<u>0</u>	COND (mS/cm)	<u>1.85</u>	MBAS	<u>0.50</u>

Analytical Lab Samples Collected?

Yes No @ 930

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	<u>1</u>	ft
D	<u>3/4 in</u>	ft
Velocity	<u>1</u>	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Nitrate diluted to 5mL sample 10mL DI

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BVC-1</u>	Latitude	<u>33.22224</u>	Watershed	Hydrologic Unit	<u>San Diego</u>
Location	<u>NW corner of Vista Royal Lodge Trailer Park</u>	Longitude	<u>117.22814</u>		Hydrologic Area	<u>SD Creek</u>
Date	<u>6-20-06</u>	TB Page			Hydrologic Subarea (Optional)	<u>SD Creek</u>
Time	<u>1420</u>	Observer	<u>SA/AW</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only) ☒ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☒ Concrete Channel ☐ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☒ Sunny ☐ Partly Cloudy ☐ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☒ None ☐ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☒ None ☐ Limited ☐ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☐ Yes ☒ No Photo # _____

Field Screening Samples Collected? ☐ Yes ☐ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	<u>9.75</u>	React PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? ☐ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: Nitrate diluted to 5mL sample & 10mL DI
E.V. = 15mL

3.25 Result
13 D.F.
9.75 Final Result

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

ICAD Follow-Up For N. L. L.

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BUC-1 upstream	Latitude	33 22507	Watershed	Hydrologic Unit	
Location		Longitude	117 22602		Hydrologic Area	
Date	7.12.06	TB Page	541		Hydrologic Subarea (Optional)	
Time	1110	Observer		Discharge Area (Optional)		

Land Use (Primary) Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) Optional, greater than 10%)	<input type="radio"/> Residential	<input checked="" type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance Check one only)	<input checked="" type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input type="radio"/> Outlet	<input checked="" type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	> 72 hours	< 72 hours		
Rainfall	<input checked="" type="radio"/> None	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Floatables	<input type="radio"/> None	<input checked="" type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive		<input type="radio"/> Other
Biology	<input type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A	<input type="radio"/> Possible
Evidence of Overland Flow?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Irrigation Runoff	<input type="radio"/> Other:
Photo Taken	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Photo #	

Did Screening Samples Collected?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Water Temp (°C)		
pH (pH units)		
NH ₃ -N (mg/L)		
NO ₃ -N (mg/L)		
Ortho-PO ₄ (mg/L)		
TURB (NTU)		
COND (mS/cm)		

Analytical Lab Samples Collected?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
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FLOW ESTIMATION WORKSHEETS

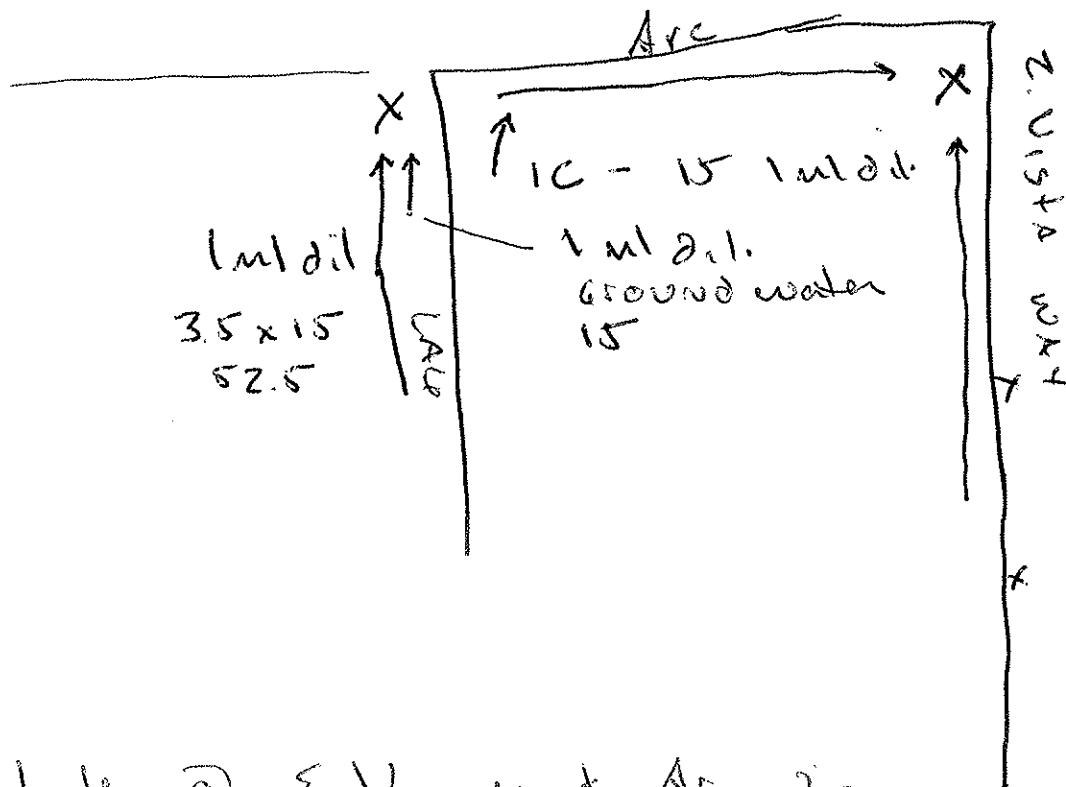
Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	mL	Diameter	ft
Depth	ft	Time to Fill	sec	Depth	ft
Flow	ft/sec	Flow	gpm	Velocity	ft/sec
Flow	gpm			Flow	gpm

REMARKS:

BVC-1

7-12-06

corner of Laguna / Arcadia



whole @ E.V. way & Arcadia

33.22506

117.22601

@ Arcadia & Laguna

33.22502

117.22428

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Analytical

Routine Investigation

IC/ID Follow-Up For Nitrate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BVC-2</u>	Latitude	<u>N 33.20951</u>	Watershed	Hydrologic Unit	<u>Chula Vista</u>
Location	<u>off of Vista Way, b/t Barnicles gas & Evans tires</u>	Longitude	<u>117.23760</u>		Hydrologic Area	<u>BV Creek</u>
Date	<u>6-20-06</u>	TB Page	<u>117.23303</u>		Hydrologic Subarea (Optional)	<u>Grasshopper</u>
Time	<u>1140</u>	Observer	<u>BA/LL</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only) Residential Commercial Industrial Agricultural Parks Open

Land Use (Secondary) (Optional, greater than 10%) Residential Commercial Industrial Agricultural Parks Open None

Conveyance (Check one only) Manhole Catch Basin Outlet Concrete Channel Natural Creek Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High Outgoing
Last Rain	<u>< 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

Tide Height: _____ ft.

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Clarity	<u>Clear</u>	Yellow	Brown	White	Gray	Other
Floatables	<u>None</u>	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	<u>Insects</u>	<u>Algae</u>	Fish Snails Mussels/Barnacles	Insect/Algae Insect/Snail	Other <u>crayfish</u>

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 2

Field Screening Samples Collected? Yes No 7 delivered to SML

Water Temp (°C)	<u>20.6°C</u>	NH ₃ -N (mg/L)	<u>0.1</u>	NO ₃ -N (mg/L)	<u>13.5</u>	Ortho-PO ₄ (mg/L)	<u>0.3</u>
pH (pH units)	<u>8.5</u>	TURB (NTU)	<u>26</u>	COND (mS/cm)	<u>1.84</u>	MBAS	<u>0.25</u>

Analytical Lab Samples Collected? Yes No @ 1145

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume	<u>1000</u>	mL	Diameter		ft
Flow		ft/sec	Time to Fill	<u>1.5</u>	sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Nikate

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>BVC-2</u>	Latitude	<u>33.20954</u>	Watershed	Hydrologic Unit	<u>San Diego</u>
Location	<u>off Vista Way bt Barnicle gas & Evans</u>	Longitude	<u>117.23303</u>		Hydrologic Area	<u>Mill Creek</u>
Date	<u>6-20-06</u>	TB Page			Hydrologic Subarea (Optional)	<u>Good hill Creek</u>
Time	<u>1600</u>	Observer	<u>SA, AW</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	<input checked="" type="radio"/> Residential	Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<input checked="" type="radio"/> Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<input checked="" type="radio"/> None	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	Musty	Rotten Eggs	Chemical	Sewage	Other
Clarity	<input checked="" type="radio"/> Clear	Yellow	Brown	White	Gray	Other
Floatables	<input checked="" type="radio"/> None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<input checked="" type="radio"/> Normal	Excessive		Other
Biology	None	<input checked="" type="radio"/> Insects	<input checked="" type="radio"/> Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail
						Other <u>claw daddies</u>

Water Flow ☒ Flowing ☐ Ponded ☐ Dry ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☒ Yes ☐ No ☐ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☐ Yes ☒ No ☐ Photo # _____

Field Screening Samples Collected? ☐ Yes ☐ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	<u>10.5</u>	Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? ☐ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: diluted to 5ml

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BVC-3	Latitude	33.18504	Watershed	Hydrologic Unit	
Location		Longitude	117.28019		Hydrologic Area	
Date	10.23.06	TB Page			Hydrologic Subarea (Optional)	
Time	0948	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary)
(Optional, greater than 10%)

☒ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance
(Check one only)

☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☐ Sunny ☐ Partly Cloudy ☒ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☒ None ☐ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☒ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☐ Other _____

Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☐ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☒ Yes ☐ No Photo # _____

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	20.3	NH ₃ -N (mg/L)	0.2	NO ₃ -N (mg/L)	0.4	React PO ₄ (mg/L)	0.2
pH (pH units)	8.75	TURB (NTU)	3	COND (mS/cm)	1.83	MBAS	0.75

Analytical Lab Samples Collected? ☐ Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees
City of San Diego Storm Water Pollution Prevention Program
Dry Weather Monitoring Field Datasheet

analytical

☒ Routine Investigation

X IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	BVC-3	Latitude	33.18500	Watershed	Hydrologic Unit	
Location	end of Via Centre	Longitude	117.28033		Hydrologic Area	
Date	6-27-06	TB Page			Hydrologic Subarea (Optional)	
Time	0910	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only) ☐ Residential ☒ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Land Use (Secondary) (Optional, greater than 10%) ☐ Residential ☐ Commercial ☐ Industrial ☐ Agricultural ☐ Parks ☐ Open

Conveyance (Check one only) ☐ Manhole ☐ Catch Basin ☐ Outlet ☐ Concrete Channel ☒ Natural Creek ☐ Earthen Channel

ATMOSPHERIC CONDITIONS

Weather ☐ Sunny ☐ Partly Cloudy ☒ Overcast ☐ Fog

Tide ☒ N/A ☐ Low ☐ Incoming ☐ High ☐ Outgoing Tide Height: _____ ft.

Last Rain ☒ > 72 hours ☐ < 72 hours

Rainfall ☒ None ☐ < 0.1" ☐ > 0.1"

RUNOFF CHARACTERISTICS

Odor ☒ None ☐ Musty ☐ Rotten Eggs ☐ Chemical ☐ Sewage ☐ Other _____

Color ☐ None ☒ Yellow ☐ Brown ☐ White ☐ Gray ☐ Other _____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Opaque ☐ Other _____

Floatables ☐ None ☐ Trash ☐ Bubbles/Foam ☐ Sheen ☐ Fecal Matter ☒ Other _____

Deposits ☐ None ☒ Sediment/Gravel ☐ Fine Particulates ☐ Stains ☐ Oily Deposits ☐ Other _____

Vegetation ☐ None ☐ Limited ☒ Normal ☐ Excessive ☐ Other _____

Biology ☐ None ☒ Insects ☒ Algae ☐ Snails/Fish ☐ Mussels/Barnacles ☐ Other _____

Flow Observed ☒ Yes ☐ No ☐ Ponded ☐ Tidal

Does the storm drain flow reach the Receiving Water? ☐ Yes ☐ No ☒ N/A

Evidence of Overland Flow? ☐ Yes ☒ No ☐ Irrigation Runoff ☐ Other: _____

Photo Taken ☐ Yes ☒ No Photo # _____

Field Screening Samples Collected? ☒ Yes ☐ No

Water Temp (°C)	21.3	NH ₃ -N (mg/L)	0.2	NO ₃ -N (mg/L)	2.0	React PO ₄ (mg/L)	0.15
pH (pH units)	8.31	TURB (NTU)	5	COND (mS/cm)	482	MBAS (mg/L)	0.25

Analytical Lab Samples Collected? ☒ Yes ☐ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	6-2	Latitude	33.23046	Watershed	Hydrologic Unit	Salinas River
Location		Longitude	117.24294		Hydrologic Area	Lower Salinas
Date	7-6-06	TB Page			Hydrologic Subarea (Optional)	Lower Salinas
Time	1305	Observer	U		Discharge Area (Optional)	

Land Use (Primary) (Check one only)	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="checkbox"/> Residential	<input type="checkbox"/> Commercial	<input type="checkbox"/> Industrial	<input type="checkbox"/> Agricultural	<input type="checkbox"/> Parks	<input type="checkbox"/> Open
Conveyance (Check one only)	<input checked="" type="checkbox"/> Manhole	<input type="checkbox"/> Catch Basin	<input type="checkbox"/> Outlet	<input type="checkbox"/> Concrete Channel	<input type="checkbox"/> Natural Creek	<input type="checkbox"/> Earthen Channel
						<input type="checkbox"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear	Slightly Cloudy	Opaque			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive	Other	
Biology	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae/Snail/Other

Water Flow Flowing Ponded ☒ Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes ☒ No Irrigation Runoff Other: _____

Photo Taken ☒ Yes No Photo # 3

Field Screening Samples Collected?

Yes ☒ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	ft
Depth	ft
Velocity	ft/sec
Flow	gpm

Filling a Bottle or Known Volume

Volume	mL
Time to Fill	sec
Flow	gpm

Flowing Pipe

Diameter	ft
Depth	ft
Velocity	ft/sec
Flow	gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	G-3	Latitude	33.2280°	Watershed	Hydrologic Unit	San Luis Rey
Location	North end of Jules	Longitude	117.22970°		Hydrologic Area	Lower San Luis
Date	7.5.00	TB Page			Hydrologic Subarea (Optional)	Countryside
Time	1150	Observer	SA/LC		Discharge Area (Optional)	

Land Use (Primary) (Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance (Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input checked="" type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
					<input type="radio"/> Curb/Gutter	

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog	
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High	<input type="radio"/> Outgoing
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours			
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"		

RUNOFF CHARACTERISTICS

Odor	<input type="radio"/> None	<input checked="" type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Color	<input type="radio"/> None	<input checked="" type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Slightly Cloudy	<input type="radio"/> Opaque			
Floatables	<input type="radio"/> None	<input checked="" type="radio"/> Trash lots	<input type="radio"/> Bubbles/Foam	<input checked="" type="radio"/> Shells	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input type="radio"/> None	<input checked="" type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input type="radio"/> None	<input type="radio"/> Limited	<input checked="" type="radio"/> Normal	<input type="radio"/> Excessive		
Biology	<input type="radio"/> None	<input checked="" type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
			<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail	

Water Flow	<input type="radio"/> Flowing	<input checked="" type="radio"/> Pooled	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A	
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Irrigation Runoff	<input type="radio"/> Other: _____
Photo Taken	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Photo # 3 + 3 of runoff up the street	

Field Screening Samples Collected? <input checked="" type="radio"/> Yes <input type="radio"/> No							
Water Temp (°C)	24.3	NH ₃ -N (mg/L)	1.5	NO ₃ -N (mg/L)	0.2	Ortho-PO ₄ (mg/L)	1
pH (pH units)	8.37	TURB (NTU)	163	COND (mS/cm)	2.10 mS	MBAS	0.75

Analytical Lab Samples Collected? Yes ☒ No ☐ * Build Due 1.5, 0.2, 1

LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	ft	ft	Volume	mL	Diameter	ft	ft	ft
Depth	ft		Time to Fill	sec	Depth	ft		
Velocity	ft/sec		Flow	gpm	Velocity	ft/sec		
Flow	gpm				Flow	gpm		

COMMENTS: excessive irrigation appears to be the cause of high ammonia levels

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	6-3	Latitude	33 22680	Watershed	Hydrologic Unit	San Luis
Location	3100	Longitude	117 22970		Hydrologic Area	Lower San Luis
Date	7-6-06	TB Page			Hydrologic Subarea (Optional)	Coastal
Time	08:30	Observer	LL/20		Discharge Area (Optional)	

Land Use (Primary)

(Check one only)

☒ Residential

☐ Commercial

☐ Industrial

☐ Agricultural

☐ Parks

☐ Open

Land Use (Secondary)

(Optional, greater than 10%)

☐ Residential

☐ Commercial

☐ Industrial

☐ Agricultural

☐ Parks

☐ Open

☐ None

Conveyance

(Check one only)

☐ Manhole

☐ Catch Basin

☒ Outlet

☐ Concrete Channel

☐ Natural Creek

☐ Earthen Channel

☐ Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
			<input type="radio"/> Outgoing	
Last Rain	> 72 hours	< 72 hours		
Rainfall	None	< 0.1"	> 0.1"	

WATERSHED CHARACTERISTICS

Color	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Color	<input checked="" type="radio"/> None	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Slightly Cloudy	<input type="radio"/> Opaque	<input type="radio"/> Other		
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive	<input type="radio"/> Other	
Biology	<input checked="" type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail

Water Flow

☐ Flowing

☒ Ponded

☐ Dry

☐ Tidal

Does the storm drain flow reach the Receiving Water?

☐ Yes

☐ No

☒ N/A

Evidence of Overland Flow?

☒ Yes

☐ No

☐ Irrigation Runoff

☐ Other:

Photo Taken

☐ Yes

☒ No

Photo #

Field Screening Samples Collected?

☒ Yes

☐ No

Water Temp (°C)		NH ₃ -N (mg/L)	1.5	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

☐ Yes

☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		ml
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For Ames

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	6-3 ^{PSR} 6-3	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7.12.06	TB Page			Hydrologic Subarea (Optional)	
Time	1430	Observer	LL	Discharge Area (Optional)		

Land Use (Primary) Check one only	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) Optional, greater than 10%	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance Check one only	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input checked="" type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	N/A	Low	Incoming	High
Last Rain	> 72 hours	< 72 hours		
Rainfall	None	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Clarity	None	Yellow	Brown	White	Gray	Other
Foatables	Clear		Slightly Cloudy	Opaque		Other
Deposits	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Vegetation	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Biology	None	Limited	Normal	Excessive		Other
	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow	Flowing	<input checked="" type="radio"/> Pooled	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	No	Irrigation Runoff	Other: _____
Photo Taken	<input checked="" type="radio"/> Yes	No	Photo #	_____

Field Screening Samples Collected?	<input checked="" type="radio"/> Yes	No
Water Temp (°C)		NH ₃ -N (mg/L)
pH (pH units)		TURB (NTU)
		NO ₃ -N (mg/L)
		COND (mS/cm)
		Ortho-PO ₄ (mg/L)

Analytical Lab Samples Collected?	Yes	<input checked="" type="radio"/> No
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FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert		Filling a Bottle or Known Volume		Flowing Pipe	
Width	ft	Volume	mL	Diameter	ft
Depth	ft	Time to Fill	sec	Depth	ft
Flow	ft/sec	Flow	gpm	Velocity	ft/sec
	gpm			Flow	gpm

REMARKS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	G-4	Latitude	33.23341	Watershed	Hydrologic Unit	San Luis Rey
Location	2395 Warmland	Longitude	117.22410		Hydrologic Area	Lower San Luis
Date	6-23-06	TB Page			Hydrologic Subarea (Optional)	WASome
Time	1223	Observer	JS/SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only) Residential Commercial Industrial Agricultural Parks Open

Land Use (Secondary) (Optional, greater than 10%) Residential Commercial Industrial Agricultural Parks Open None

Conveyance (Check one only) Manhole Catch Basin Outlet Concrete Channel Natural Creek Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather Sunny Partly Cloudy Overcast Fog

Tide N/A Low Incoming High Outgoing Tide Height: _____ ft.

Last Rain > 72 hours < 72 hours

Rainfall None < 0.1" > 0.1"

RUNOFF CHARACTERISTICS

	None	Musty	Rotten Eggs	Chemical	<u>Sewage</u>	Other
Color	None	<u>Yellow</u>	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	None	Trash	<u>Bubbles/Foam</u>	<u>Sheen</u>	Fecal Matter	<u>Other</u> <i>leaves</i>
Deposits	None	<u>Sediment/Gravel</u>	Fine Particulates	<u>Stains</u>	Oily Deposits	Other
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other
Biology	<u>None</u>	<u>Insects</u>	Algae	Fish	Snails	Mussels/Barnacles
					Insect/Algae	Insect/Snail

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A *don't know*

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # _____

Field Screening Samples Collected?

Water Temp (°C)	22.8	NH ₃ -N (mg/L)	1.0	NO ₃ -N (mg/L)	BSF 0	Ortho-PO ₄ (mg/L)	4.0
pH (pH units)	8.70	TURB (NTU)	51	COND (mS/cm)	0.855	MBAS	1.5

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Flow		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: _____

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID (Follow-Up For) ORTHO PHOSPHATE, MBAS, NH₃

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>G-4</u>	Latitude	<u>33.23341</u>	Watershed	Hydrologic Unit	
Location	<u>2395 WARMLANDS</u>	Longitude	<u>117.22410</u>		Hydrologic Area	
Date	<u>6-23-06</u>	TB Page			Hydrologic Subarea (Optional)	
Time	<u>16:48</u>	Observer	<u>DM</u>	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

Residential

Commercial

Industrial

Agricultural

Parks

Open

Land Use (Secondary)

(Optional, greater than 10%)

Residential

Commercial

Industrial

Agricultural

Parks

Open

None

Conveyance

(Check one only)

Manhole

Catch Basin

Outlet

Concrete Channel

Natural Creek

Earthen Channel

Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog
Tide	<u>N/A</u>	Low	Incoming	High
		Outgoing	Tide Height: _____ ft.	
Last Rain	<u>> 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	<u>Sewage</u>	Other
Color	None	<u>Yellow</u>	Brown	White	Gray	Other
Clarity	Clear		<u>Slightly Cloudy</u>	Opaque		Other
Floatables	None	Trash	<u>Bubbles/Foam</u>	Sheen	Fecal Matter	Other
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other
Biology	<u>None</u>	Insects	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail

Water Flow Flowing Ponded Dry Tidal FLOWING INTO STORM DRAIN - PONDING IN S.D.

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 5

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)	<u>1.5</u>	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	<u>3.5</u>
pH (pH units)		TURB (NTU)		COND (mS/cm)		MBAS	<u>1.0*</u>

Analytical Lab Samples Collected?

Yes

No

*Turbidity made reading difficult for MBAS value was 0.75-1.0

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: _____

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Analytical
Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	GC-1	Latitude	N 33° 14.159'	Watershed	Hydrologic Unit	
Location	end of Melrose @ Rancho Santa Fe	Longitude	W 117° 15.682'		Hydrologic Area	
Date	6.20.06	TB Page			Hydrologic Subarea (Optional)	
Time	0825	Observer	SA	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	<u>Agricultural</u>	Parks	Open
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	<u>Natural Creek</u>	Earthen Channel

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	<u>Overcast</u>	Fog
Tide	<u>N/A</u>	Low	Incoming	High
Last Rain	<u>< 72 hours</u>	< 72 hours		
Rainfall	<u>None</u>	< 0.1"	> 0.1"	

RUNOFF CHARACTERISTICS

	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	<u>None</u>	Yellow	Brown	White	Gray	Other
Clarity	<u>Clear</u>		Slightly Cloudy	Opaque		Other
Floatables	<u>None</u>	<u>Trash</u>	<u>Bubbles/Foam</u>	Sheen	Fecal Matter	Other
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	<u>None</u>	Limited	<u>Normal</u>	Excessive		Other
Biology	<u>None</u>	<u>Insects</u>	Algae	Fish	<u>Snails</u>	Mussels/Barnacles
					Insect/Algae	Insect/Snail

Water Flow	<u>Flowing</u>	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<u>Yes</u>	No	N/A	
Evidence of Overland Flow?	Yes	<u>No</u>	Irrigation Runoff	Other: _____
Photo Taken	<u>Yes</u>	No	Photo #	<u>2</u>

Field Screening Samples Collected?

Yes No

Water Temp (°C)	<u>19.4</u>	NH ₃ -N (mg/L)	<u>0.4</u>	NO ₃ -N (mg/L)	<u>0.8</u>	Ortho-PO ₄ (mg/L)	<u>0.3</u>
pH (pH units)	<u>8.50</u>	TURB (NTU)	<u>13</u>	COND (mS/cm)	<u>2.24 mS</u>	MBAS	<u>0.7</u>

Analytical Lab Samples Collected?

Yes No @ 0830

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width	<u>3</u>	ft
Depth	<u>2</u>	ft
Velocity	<u>1/1</u>	ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS * Map on other side

**San Diego Stormwater Copermittees
Dry Weather Monitoring Field Datasheet**

Analytical

Routine Investigation

IC/ID Follow-Up For W. Lake

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	MV-1	Latitude	N 33.19857	Watershed	Hydrologic Unit	Carlisle
Location	Residential Drive / water park	Longitude	W 117.24406		Hydrologic Area	BW Creek
Date	6-20-06	TB Page			Hydrologic Subarea (Optional)	Manly
Time	1100	Observer	SA/LL	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog		
Tide	N/A	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	Brown	White	Gray	Other			
Clarity	Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other Leaf Debris			
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	None	Limited	Normal	Excessive		Other			
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	Yes	No	N/A	
Evidence of Overland Flow?	Yes	No	Irrigation Runoff	Other: _____
Photo Taken	Yes	No	Photo #	5

Field Screening Samples Collected?

Yes No Dil. to 1 ml

Water Temp (°C)	22.6	NH3-N (mg/L)	0.1	NO3-N (mg/L)	15	Ortho-PO4 (mg/L)	0.1
pH (pH units)	8.89	TURB (NTU)	5	COND (mS/cm)	1.83	MVA	12.3

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width	10	ft	Volume		mL	Diameter		ft
1	1.2	ft	Time to Fill		sec	Depth		ft
Velocity	1.5	ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For NHak

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>MV-1</u>	Latitude	<u>33.19857</u>	Watershed	Hydrologic Unit	<u>containing</u>
Location	<u>behind Krikorian theater on Vista Way</u>	Longitude	<u>117.24406</u>		Hydrologic Area	<u>BU Creek</u>
Date	<u>6-20-06</u>	TB Page			Hydrologic Subarea (Optional)	<u>Major Vista</u>
Time	<u>1505</u>	Observer	<u>SAJAW</u>	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	<input checked="" type="radio"/> Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	Manhole	Catch Basin	Outlet	<input checked="" type="radio"/> Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	<u>> 72 hours</u>	< 72 hours				
Rainfall	<input checked="" type="radio"/> None	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	Musty	Rotten Eggs	Chemical	Sewage	Other			
Color	<input checked="" type="radio"/> None	Yellow	Brown	White	Gray	Other			
Clarity	<input checked="" type="radio"/> Clear		Slightly Cloudy	Opaque		Other			
Floatables	None	<u>Trash</u>	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>			
Deposits	None	<u>Sediment</u> /Gravel	Fine Particulates	Stains	Oily Deposits	Other			
Vegetation	<input checked="" type="radio"/> None	Limited	Normal	Excessive		Other			
Biology	None	<input checked="" type="radio"/> Insects	<input checked="" type="radio"/> Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow	<input checked="" type="radio"/> Flowing	Ponded	Dry	Tidal
Does the storm drain flow reach the Receiving Water?	<input checked="" type="radio"/> Yes	No	N/A	
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No	Irrigation Runoff	Other: _____
Photo Taken	Yes	<input checked="" type="radio"/> No	Photo # _____	

Field Screening Samples Collected?

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)	<u>15</u>	Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		ml	Diameter		ft
Length		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: NHak diluted 1ml

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	MV-2	Latitude	33.19082	Watershed	Hydrologic Unit	contaminated
Location	on cypress across from 1073	Longitude	117.22118		Hydrologic Area	BU Creek
Date	7.5.06	TB Page			Hydrologic Subarea (Optional)	Moul. 13.8
Time	1330	Observer	SA/IC	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<u>Residential</u>	Commercial	Industrial	Agricultural	Parks	Open	
Land Use (Secondary) (Optional, greater than 10%)	Residential	Commercial	Industrial	Agricultural	Parks	Open	None
Conveyance (Check one only)	<u>Manhole</u>	Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel	Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog		
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing	Tide Height: _____ ft.
Last Rain	> 72 hours	< 72 hours				
Rainfall	<u>None</u>	< 0.1"	> 0.1"			

RUNOFF CHARACTERISTICS

Odor	None	<u>Musty</u>	Rotten Eggs	Chemical	Sewage	Other			
Color	None	Yellow	<u>Brown</u>	White	Gray	Other			
Clarity	Clear		<u>Slightly Cloudy</u>	Opaque		Other			
Floatables	None	<u>Trash</u>	Bubbles/Foam	<u>Sheen</u>	Fecal Matter	<u>Other dead bird</u>			
Deposits	None	Sediment/Gravel	<u>Fine Particulates</u>	Stains	Oily Deposits	Other			
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other			
Biology	<u>None</u>	Insects	Algae	Fish	Snails	Mussels/Barnacles	Insect/Algae	Insect/Snail	Other

Water Flow: Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken Yes No Photo # 3

Field Screening Samples Collected?	<u>Yes</u>	No					
Water Temp (°C)	<u>27.0</u>	NH ₃ -N (mg/L)	<u>4*</u>	NO ₃ -N (mg/L)	<u>0.4</u>	Ortho-PO ₄ (mg/L)	<u>3</u>
pH (pH units)	<u>8.84</u>	TURB (NTU)	<u>133</u>	COND (mS/cm)	<u>1.15mS</u>	MIBAS	<u>5</u>

Analytical Lab Samples Collected? Yes No

LOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		mL	Diameter		ft
Depth		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: sample water slightly foamy; MIBAS diluted to 1mL
 * sample water was already yellowish brown, quite possibly the reason colorimetric kit read so high

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For PO₄, MBAS, Turb

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	<u>MV-2</u>	Latitude	<u>33.19082</u>	Watershed	Hydrologic Unit	<u>Consolidated</u>
Location	<u>La Mesa Urban Sprink</u>	Longitude	<u>-117.22118</u>		Hydrologic Area	<u>BLD Creek</u>
Date	<u>7-6-06</u>	TB Page			Hydrologic Subarea (Optional)	<u>Mark Vista</u>
Time	<u>0925</u>	Observer	<u>DO</u>	Discharge Area (Optional)		

Land Use (Primary)
(Check one only) Residential Commercial Industrial Agricultural Parks Open

Land Use (Secondary)
(Optional, greater than 10%) Residential Commercial Industrial Agricultural Parks Open None

Conveyance
(Check one only) Manhole Catch Basin Outlet Concrete Channel Natural Creek Earthen Channel Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<u>Sunny</u>	Partly Cloudy	Overcast	Fog	
Tide	<u>N/A</u>	Low	Incoming	High	Outgoing
Last Rain	<u>> 72 hours</u>	< 72 hours			
Rainfall	<u>None</u>	< 0.1"	> 0.1"		

Tide Height: _____ ft.

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	<u>Rotten Eggs</u>	Chemical	Sewage	Other
Clarity	<u>Clear</u>	Yellow	<u>Brown</u>	White	Gray	Other
Floatables	<u>None</u>	Trash	<u>Bubbles/Foam</u>	Sheen	Fecal Matter	Other
Deposits	<u>None</u>	Sediment/Gravel	Fine Particulates	Stains	<u>Oily Deposits</u>	Other
Vegetation	<u>None</u>	Limited	Normal	Excessive		Other
Biology	<u>None</u>	<u>Insects</u>	Algae	Fish	Snails	Mussels/Barnacles
						Insect/Algae
						Insect/Snail
						Other <u>dead bird</u>

Water Flow Flowing Ponded Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: unknown

Photo Taken Yes No Photo # _____

Field Screening Samples Collected? Yes No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	<u>6.0</u>
pH (pH units)		TURB (NTU)	<u>see comments</u>	COND (mS/cm)			

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Width		ft	Volume		ml	Diameter		ft
Height		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

COMMENTS: Turbidity - H₂O undisturbed not turbid, sampling stirred fine sediment
swells on decant. Less H₂O today

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	MV-3	Latitude	33.19373	Watershed	Hydrologic Unit	San Diego
Location	2 S. San Antonio Fe. + Escondido Ave	Longitude	117.23468		Hydrologic Area	Blvd Creek
Date	7.6.06	TB Page			Hydrologic Subarea (Optional)	Manhole
Time	1325	Observer	CL/DO	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open
Land Use (Secondary) (Optional, greater than 10%)	Residential	<input checked="" type="radio"/> Commercial	Industrial	Agricultural	Parks	Open
Conveyance (Check one only)	<input checked="" type="radio"/> Manhole	<input checked="" type="radio"/> Catch Basin	Outlet	Concrete Channel	Natural Creek	Earthen Channel
						Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear	Slightly Cloudy	Opaque			
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive		
Biology	None	Insects	Algae	Fish	Snails	Other
				Mussels/Barnacles	Insect/Algae	Insect/Snail

Water Flow Flowing Ponded ☒ Dry Tidal

Does the storm drain flow reach the Receiving Water? Yes No N/A

Evidence of Overland Flow? Yes No Irrigation Runoff Other: _____

Photo Taken ☒ Yes No Photo # 20 NW 6

Field Screening Samples Collected? Yes ☒ No

Water Temp (°C)		NH ₃ -N (mg/L)		NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected? Yes ☒ No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Width</td><td style="width: 50%;">ft</td></tr> <tr><td> </td><td>ft</td></tr> <tr><td>Velocity</td><td>ft/sec</td></tr> <tr><td>Flow</td><td>gpm</td></tr> </table>	Width	ft		ft	Velocity	ft/sec	Flow	gpm	Filling a Bottle or Known Volume <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Volume</td><td style="width: 50%;">mL</td></tr> <tr><td>Time to Fill</td><td>sec</td></tr> <tr><td>Flow</td><td>gpm</td></tr> </table>	Volume	mL	Time to Fill	sec	Flow	gpm	Flowing Pipe <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Diameter</td><td style="width: 50%;">ft</td></tr> <tr><td>Depth</td><td>ft</td></tr> <tr><td>Velocity</td><td>ft/sec</td></tr> <tr><td>Flow</td><td>gpm</td></tr> </table>	Diameter	ft	Depth	ft	Velocity	ft/sec	Flow	gpm
Width	ft																							
	ft																							
Velocity	ft/sec																							
Flow	gpm																							
Volume	mL																							
Time to Fill	sec																							
Flow	gpm																							
Diameter	ft																							
Depth	ft																							
Velocity	ft/sec																							
Flow	gpm																							

COMMENTS: see map on reverse, trash & sediment in water

VISTA

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	33-1	Latitude	33-82-00	Watershed	Hydrologic Unit	6-7-7
Location	1209 Loma Vista	Longitude	117-23-30		Hydrologic Area	6-7-7
Date	7-6-16	TB Page			Hydrologic Subarea (Optional)	6-7-7
Time	1140	Observer	DO/LC	Discharge Area (Optional)		

Land Use (Primary)
(Check one only)

Residential

Commercial

Industrial

Agricultural

Parks

Open

Land Use (Secondary)

(Optional, greater than 10%)

Residential

Commercial

Industrial

Agricultural

Parks

Open

None

Conveyance

(Check one only)

Manhole

Catch Basin

Outlet

Concrete Channel

Natural Creek

Earthen Channel

Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

Tide Height: _____ ft.

RUNOFF CHARACTERISTICS

Color	None	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other
Clarity	Clear		Slightly Cloudy	Opaque		Other
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other
Deposits	None	Sediment/Gravel	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	Normal	Excessive		Other
Biology	None	Insects	Algae	Fish	Snails	Mussels/Barnacles
					Insect/Algae	Insect/Snail

Water Flow

Flowing

Ponded

Dry

Tidal

Does the storm drain flow reach the Receiving Water?

Yes

No

N/A

Evidence of Overland Flow?

Yes

No

Irrigation Runoff

Other: _____

Photo Taken

Yes

No

Photo #

1

Field Screening Samples Collected?

Yes

No

Water Temp (°C)	22.1	NH ₃ -N (mg/L)	1.5	NO ₃ -N (mg/L)	0.1	Ortho-PO ₄ (mg/L)	0.6
pH (pH units)	8.35	TURB (NTU)	60	COND (mS/cm)	118 mS	118 mS	0.75

Analytical Lab Samples Collected?

Yes

No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
1		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS:

marginal flow rate

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	SS-1	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7-7-06	TB Page			Hydrologic Subarea (Optional)	
Time	0945	Observer	LL/SS	Discharge Area (Optional)		

Land Use (Primary) (Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) (Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance (Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input checked="" type="radio"/> Outlet	<input type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
						<input type="radio"/> Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours		
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"	

OFF CHARACTERISTICS

Odor	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Color	<input checked="" type="radio"/> None	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Slightly Cloudy	<input type="radio"/> Opaque			
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other <u>leaf debris</u>
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input checked="" type="radio"/> Normal	<input type="radio"/> Excessive		
Biology	<input checked="" type="radio"/> None	<input checked="" type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/Barnacles	<input type="radio"/> Insect/Algae	<input type="radio"/> Insect/Snail

Water Flow	<input type="radio"/> Flowing	<input checked="" type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal
Does the storm drain flow reach the Receiving Water?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> N/A	
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Irrigation Runoff	<input type="radio"/> Other: _____
Photo Taken	<input type="radio"/> Yes	<input checked="" type="radio"/> No	Photo # _____	

Field Screening Samples Collected?

<input checked="" type="radio"/> Yes	<input type="radio"/> No						
Water Temp (°C)		NH ₃ -N (mg/L)	2.0	NO ₃ -N (mg/L)		Ortho-PO ₄ (mg/L)	
pH (pH units)		TURB (NTU)		COND (mS/cm)			

Analytical Lab Samples Collected?

Yes ☒ No ☐

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert	Filling a Bottle or Known Volume	Flowing Pipe
Width	Volume	Diameter
Depth	Time to Fill	Depth
Velocity	Flow	Velocity
Flow		Flow

COMMENTS:

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

CID Follow-Up For

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	SS-1	Latitude		Watershed	Hydrologic Unit	
Location		Longitude			Hydrologic Area	
Date	7-13-06	TB Page			Hydrologic Subarea (Optional)	
Time	1115	Observer	<u> </u>	Discharge Area (Optional)		

Land Use (Primary) Check one only)	<input checked="" type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Land Use (Secondary) Optional, greater than 10%)	<input type="radio"/> Residential	<input type="radio"/> Commercial	<input type="radio"/> Industrial	<input type="radio"/> Agricultural	<input type="radio"/> Parks	<input type="radio"/> Open
Conveyance Check one only)	<input type="radio"/> Manhole	<input type="radio"/> Catch Basin	<input checked="" type="radio"/> <u>Outlet</u>	<input type="radio"/> Concrete Channel	<input type="radio"/> Natural Creek	<input type="radio"/> Earthen Channel
					<input type="radio"/> Curb/Gutter	

ATMOSPHERIC CONDITIONS

Weather	<input checked="" type="radio"/> Sunny	<input type="radio"/> Partly Cloudy	<input type="radio"/> Overcast	<input type="radio"/> Fog	
Tide	<input checked="" type="radio"/> N/A	<input type="radio"/> Low	<input type="radio"/> Incoming	<input type="radio"/> High	<input type="radio"/> Outgoing
Last Rain	<input checked="" type="radio"/> > 72 hours	<input type="radio"/> < 72 hours			
Rainfall	<input checked="" type="radio"/> None	<input type="radio"/> < 0.1"	<input type="radio"/> > 0.1"		

RUNOFF CHARACTERISTICS

Color	<input checked="" type="radio"/> None	<input type="radio"/> Musty	<input type="radio"/> Rotten Eggs	<input type="radio"/> Chemical	<input type="radio"/> Sewage	<input type="radio"/> Other
Clarity	<input checked="" type="radio"/> Clear	<input type="radio"/> Yellow	<input type="radio"/> Brown	<input type="radio"/> White	<input type="radio"/> Gray	<input type="radio"/> Other
Floatables	<input checked="" type="radio"/> None	<input type="radio"/> Trash	<input type="radio"/> Bubbles/Foam	<input type="radio"/> Sheen	<input type="radio"/> Fecal Matter	<input type="radio"/> Other
Deposits	<input checked="" type="radio"/> None	<input type="radio"/> Sediment/Gravel	<input type="radio"/> Fine Particulates	<input type="radio"/> Stains	<input type="radio"/> Oily Deposits	<input type="radio"/> Other
Vegetation	<input checked="" type="radio"/> None	<input type="radio"/> Limited	<input type="radio"/> Normal	<input type="radio"/> Excessive	<input type="radio"/> Other	
Biology	<input checked="" type="radio"/> None	<input type="radio"/> Insects	<input type="radio"/> Algae	<input type="radio"/> Fish	<input type="radio"/> Snails	<input type="radio"/> Other
				<input type="radio"/> Mussels/ Barnacles	<input type="radio"/> Insect/ Algae	<input type="radio"/> Insect/ Snail

Water Flow	<input checked="" type="radio"/> Flowing	<input type="radio"/> Ponded	<input type="radio"/> Dry	<input type="radio"/> Tidal	<input type="radio"/> <u>Trickle</u>
Does the storm drain flow reach the Receiving Water?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> N/A		
Evidence of Overland Flow?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Irrigation Runoff	<input type="radio"/> Other: _____	
Photo Taken	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Photo # _____		

Did Screening Samples Collected?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	15 @ SS-1
Water Temp (°C)		NH3-N (mg/L)	1.0
pH (pH units)		TURB (NTU)	
		NO3-N (mg/L)	
		COND (mS/cm)	
		Ortho-PO4 (mg/L)	

Analytical Lab Samples Collected?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
-----------------------------------	---------------------------	-------------------------------------

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert			Filling a Bottle or Known Volume			Flowing Pipe		
Depth		ft	Volume		mL	Diameter		ft
Width		ft	Time to Fill		sec	Depth		ft
Velocity		ft/sec	Flow		gpm	Velocity		ft/sec
Flow		gpm				Flow		gpm

REMARKS: _____

VISTA

San Diego Stormwater Copermittees Dry Weather Monitoring Field Datasheet

Routine Investigation

IC/ID Follow-Up For _____

GENERAL SITE DESCRIPTION

(NAD 83 decimal degrees to 5th place)

Site ID	SS-2	Latitude	33.17880	Watershed	Hydrologic Unit	
Location		Longitude	117.25803		Hydrologic Area	
Date	7.6.06	TB Page			Hydrologic Subarea (Optional)	
Time	11-15	Observer	DC/LC	Discharge Area (Optional)		

Land Use (Primary)

(Check one only)

Residential

Commercial

Industrial

Agricultural

Parks

Open

Land Use (Secondary)

(Optional, greater than 10%)

Residential

Commercial

Industrial

Agricultural

Parks

Open

None

Conveyance

(Check one only)

Manhole

Catch Basin

Outlet

Concrete Channel

Natural Creek

Earthen Channel

Curb/Gutter

ATMOSPHERIC CONDITIONS

Weather	Sunny	Partly Cloudy	Overcast	Fog	
Tide	N/A	Low	Incoming	High	Outgoing
Last Rain	> 72 hours	< 72 hours			
Rainfall	None	< 0.1"	> 0.1"		

RUNOFF CHARACTERISTICS

Color	<u>None</u>	Musty	Rotten Eggs	Chemical	Sewage	Other
Color	None	Yellow	Brown	White	Gray	Other <u>orange</u>
Clarity	Clear		<u>Slightly Cloudy</u>	Opaque		Other
Floatables	None	Trash	Bubbles/Foam	Sheen	Fecal Matter	Other <u>leaf debris</u>
Deposits	None	<u>Sediment/Gravel</u>	Fine Particulates	Stains	Oily Deposits	Other
Vegetation	None	Limited	<u>Normal</u>	Excessive		Other
Biology	None	<u>Insects</u>	Algae	<u>Fish</u>	Snails	Mussels/Barnacles
				Insect/Algae	Insect/Snail	Other

Water Flow Flowing Ponded Dry TidalDoes the storm drain flow reach the Receiving Water? Yes No N/AEvidence of Overland Flow? Yes No Irrigation Runoff Other: _____Photo Taken Yes No Photo # 3Field Screening Samples Collected? Yes No

Water Temp (°C)	<u>21.4</u>	NH ₃ -N (mg/L)	<u>0.6</u>	NO ₃ -N (mg/L)	<u>0.4</u>	Ortho-PO ₄ (mg/L)	<u>1.5</u>
pH (pH units)	<u>8.33</u>	TURB (NTU)	<u>22.0</u>	COND (mS/cm)	<u>4.03 mS</u>	MRA5	<u>0.5</u>

Analytical Lab Samples Collected? Yes No

FLOW ESTIMATION WORKSHEETS

Flowing Creek or Box Culvert

Width		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

Filling a Bottle or Known Volume

Volume		mL
Time to Fill		sec
Flow		gpm

Flowing Pipe

Diameter		ft
Depth		ft
Velocity		ft/sec
Flow		gpm

COMMENTS: 6' corrugated steel pipe, Mulch factory across St. Mary's river, near by

APPENDIX C

Analytical Results and Quality Assurance/Quality Control Results

Chemical Testing Equipment

All CHEMetrics field test kits employ the colorimetric method of analysis in which a visual comparison is made between the sample and the specific CHEMetrics color comparator. Test kits are designed for low (less than 1 ppm) to medium (above 1 ppm) concentrations of pollutants.

CHEMetrics **Ammonia** (nitrogen) Test Kit No. K-1510

The ammonia concentration is determined by direct Nesslerization. Results are expressed as mg/L (ppm) NH₃-N.

CHEMetrics **Nitrate** (nitrogen) Test Kit No. K-6902

Nitrate is reduced to nitrite using cadmium as the reducing agent. The resulting nitrite concentration is then determined colorimetrically. Nitrite will interfere with this test. Results are expressed as ppm (mg/L) NO₃-N.

CHEMetrics **Phosphate** (reactive, ortho) Test Kit No. K-8510

Test kits employ the molybdenum blue method, for lower range determinations, utilizing a stannous chloride reduction. Phosphate reacts with ammonium molybdate and is then reduced by stannous chloride to form a blue complex. Results are expressed as ppm (mg/L) PO₄.

CHEMetrics **Detergents** (anionic surfactants) Test Kit No. K-9400

Detergent concentrations are determined by reacting anionic surfactants with methylene blue to form a colored complex that is extracted into an immiscible organic solvent (chloroform). Anionic detergents are among the most prominent of substances showing methylene blue activity. The intensity of the resulting blue color in the solvent is directly proportional to the concentration of Methylene Blue Active Substances (MBAS) in the sample. Results are expressed as mg/L of linear alkyl benzene sulfonate.

Oakton Model 35630-62 **pH/Conductivity/Temperature Meter**

Physical measurements were made by submerging the all-in-one pH/Conductivity/Temperature probe into the collected water sample.

Hach 2100P **Turbidimeter**

The 2100P Turbidimeter features a unique optical design that incorporates signal ratioing. Light is focused into a narrow beam and passed through the sample. The 90° scatter detector receives light scattered by particles in the sample. The transmitted light detector receives light that passes through the sample. The signal output of the 2100P is a ratio (based on an algorithm) of the two detectors. By measuring both 90° scattered light and transmitted light, the 2100P compensates for background color, light fluctuations or dust and haze on the optics.

Quality Assurance/Quality Control (QA/QC)

All field test kits came from CHEMetrics Laboratory precalibrated and ready for use. The other field instruments were tested and calibrated before each round of field inspections to ensure accuracy and reliability. In addition, field test kits results were compared with results from a State certified laboratory to ensure reliability.

The Oakton Model 35630-62 pH/ Conductivity/ Temperature Meter was calibrated daily using known standards. The pH probe was calibrated using a three point calibration at pH 4.0, 7.0 and 10.0. The conductivity probe was calibrated using a two-point calibration at 447 uS/cm and 2764 uS/cm. The temperature probe comes precalibrated from the factory.

Calibration of the Hach 2100P Portable Turbidimeter is based on formazin, the accepted primary standard for turbidity measurement. Calibration is performed at manufacturer's recommended intervals.

Site AC-2 was chosen to conduct a laboratory QA/QC of the field test kits. During the field investigations, grab samples were also collected and sent to EnviroMatrix Analytical, Inc., a State Certified Laboratory located in San Diego, California. Results from the field test kits and the laboratory analyses were compared for QA/QC and are presented in Table C.1.

Table C.1: 2006 Results of Field and Laboratory Analyses Site BV-19

Chemical Parameter	Field Methods	Field Results (mg/L)	EnviroMatrix Laboratory Methods	EnviroMatrix Laboratory Results (mg/L)
Ammonia as N	CHEMetrics	0.2	SM4500 NH3 B,C	0.1
Nitrate as N	CHEMetrics	3.75	SM4500 NO3 E	4.15
MBAS	CHEMetrics	0.5	SM5540 C	< 0.5
Orthophosphate as P	CHEMetrics	0.5	SM 4500 P E	0.16

The nitrate and MBAS analyses agreed well between both methods with a relative percent difference less than 20%. There was a 67% relative percent difference between the ammonia result for the field test kit and the laboratory analysis and is due to the values being close to the detection limit but is within the expectation of the two methods.

There was a 103% relative percent difference between the phosphate result for the field test kit and the laboratory analysis which may be due to the longer holding time at the laboratory. While still within the 48 hour holding time for analysis, the sample was still analyzed after one day of holding. This extended holding time may have resulted in analyte degradation which is also one reason why this parameter is measured in the field. Laboratory QA/QC reports are located in this Appendix.

Field kit analyses were replicated at one site for each day of the field investigations. These replicate tests were used to assess field precision. Seven sites were selected for

replicate field kit analyses. These sites were AH-9, AH-10, BV-1, BV-4, BV-7, BV-19, and G-3. Table C.2 provides the results of these QA/QC procedures. The replicate analyses (Test 2) were consistent with the initial analyses (Test 1).

Table C.2: Results of Field Kit Replicate Analyses

Analyte	Site AH-9		Site AH-10		Site BV-1		Site BV-4		Site BV-7	
	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2	Test 1	Test 2
NH ₃ (mg/L)	0.4	0.4	0	0	0.4	0.4	0.3	0.4	0.3	0.2
NO ₃ (mg/L)	0.2	0.2	6.0	6.0	0	0	0.3	0.3	2.4	2.4
MBAS (mg/L)	0.5	0.5	0.5	0.5	3.0	3.0	0.5	0.5	0.25	0.25
PO ₄ (mg/L)	1.5	1.5	0.4	0.4	0.3	0.3	0.6	0.6	0.3	0.3

Analyte	Site BV-19		G-3	
	Test 1	Test 2	Test 1	Test 2
NH ₃ (mg/L)	0.1	0.2	1.5	1.5
NO ₃ (mg/L)	15	15	0.2	0.2
MBAS (mg/L)	0.5	0.5	0.75	0.75
PO ₄ (mg/L)	0.1	0.1	1.0	1.0

C.1 EnviroMatrix Laboratory Results

EnviroMatrix



Analytical, Inc.

29 June 2006

Weston Solutions, Inc. - Carlsbad

EMA Log #: 0606352

Attn: Dave Renfrew

2433 Impala Drive

Carlsbad, CA 92008-1514

Project Name: City of Vista Dry Weather Monitoring

Enclosed are the results of analyses for samples received by the laboratory on 06/20/06 13:39. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read 'Dan Verdon', is written over a faint, circular, dotted background.

Dan Verdon

Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GC-1	0606352-01	Water	06/20/06 08:30	06/20/06 13:39
BV-19	0606352-02	Water	06/20/06 10:15	06/20/06 13:39
MV-1	0606352-03	Water	06/20/06 11:00	06/20/06 13:39
BVC-2nd	0606352-04	Water	06/20/06 11:45	06/20/06 13:39
BVC-1st	0606352-05	Water	06/20/06 09:30	06/20/06 13:39

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Metals (Dissolved) by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GC-1 (0606352-01) Water Sampled: 06/20/06 08:30 Received: 06/20/06 13:39									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/27/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
BV-19 (0606352-02) Water Sampled: 06/20/06 10:15 Received: 06/20/06 13:39									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/27/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
MV-1 (0606352-03) Water Sampled: 06/20/06 11:00 Received: 06/20/06 13:39									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/27/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
BVC-2nd (0606352-04) Water Sampled: 06/20/06 11:45 Received: 06/20/06 13:39									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/27/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
BVC-1st (0606352-05) Water Sampled: 06/20/06 09:30 Received: 06/20/06 13:39									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/27/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GC-1 (0606352-01) Water Sampled: 06/20/06 08:30 Received: 06/20/06 13:39									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		125 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		115 %	60-130		"	"	"	"	
BV-19 (0606352-02) Water Sampled: 06/20/06 10:15 Received: 06/20/06 13:39									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		126 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		121 %	60-130		"	"	"	"	
MV-1 (0606352-03) Water Sampled: 06/20/06 11:00 Received: 06/20/06 13:39									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	0.50	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		138 %	60-130		"	"	"	"	S-02, S-04
Surrogate: Tributylphosphate		118 %	60-130		"	"	"	"	
BVC-2nd (0606352-04) Water Sampled: 06/20/06 11:45 Received: 06/20/06 13:39									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		128 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		120 %	60-130		"	"	"	"	

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BVC-1st (0606352-05) Water Sampled: 06/20/06 09:30 Received: 06/20/06 13:39									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
<i>Surrogate: Triphenyl phosphate</i>		<i>123 %</i>	<i>60-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Surrogate: Tributylphosphate</i>		<i>118 %</i>	<i>60-130</i>		<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
GC-1 (0606352-01) Water Sampled: 06/20/06 08:30 Received: 06/20/06 13:39									
Hardness (Total)	757	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	
BV-19 (0606352-02) Water Sampled: 06/20/06 10:15 Received: 06/20/06 13:39									
Hardness (Total)	696	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	
MV-1 (0606352-03) Water Sampled: 06/20/06 11:00 Received: 06/20/06 13:39									
Hardness (Total)	736	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	
BVC-2nd (0606352-04) Water Sampled: 06/20/06 11:45 Received: 06/20/06 13:39									
Hardness (Total)	650	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	
BVC-1st (0606352-05) Water Sampled: 06/20/06 09:30 Received: 06/20/06 13:39									
Hardness (Total)	739	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 6062704

Blank (6062704-BLK1)

Prepared & Analyzed: 06/27/06

Zinc	ND	0.020	mg/l
Cadmium	ND	0.005	"
Lead	ND	0.005	"
Copper	ND	0.005	"

LCS (6062704-BS1)

Prepared & Analyzed: 06/27/06

Cadmium	0.099	0.005	mg/l	0.100	99	75-125
Copper	0.098	0.005	"	0.100	98	75-125
Lead	0.102	0.005	"	0.100	102	75-125
Zinc	0.100	0.020	"	0.100	100	75-125

LCS Dup (6062704-BSD1)

Prepared & Analyzed: 06/27/06

Lead	0.102	0.005	mg/l	0.100	102	75-125	0	20
Copper	0.098	0.005	"	0.100	98	75-125	0	20
Zinc	0.101	0.020	"	0.100	101	75-125	1	20
Cadmium	0.100	0.005	"	0.100	100	75-125	1	20

Duplicate (6062704-DUP1)

Source: 0606330-01

Prepared & Analyzed: 06/27/06

Zinc	ND	0.200	mg/l	0.104				20
Lead	ND	0.005	"	ND				20
Copper	ND	0.050	"	ND				20
Cadmium	ND	0.005	"	ND				20

Matrix Spike (6062704-MS1)

Source: 0606330-01

Prepared & Analyzed: 06/27/06

Cadmium	0.106	0.005	mg/l	0.100	ND	106	75-125
Lead	0.122	0.005	"	0.100	ND	122	75-125
Zinc	0.172	0.020	"	0.100	0.104	68	75-125
Copper	0.125	0.005	"	0.100	ND	125	75-125

QM-06

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062704

Matrix Spike Dup (6062704-MSD1)		Source: 0606330-01			Prepared & Analyzed: 06/27/06					
Copper	0.123	0.005	mg/l	0.100	ND	123	75-125	2	20	
Lead	0.116	0.005	"	0.100	ND	116	75-125	5	20	
Cadmium	0.105	0.005	"	0.100	ND	105	75-125	0.9	20	
Zinc	0.167	0.020	"	0.100	0.104	63	75-125	3	20	QM-06

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062031

Blank (6062031-BLK1)

Prepared: 06/21/06 Analyzed: 06/27/06

Chlorpyrifos	ND	0.05	ug/l							
Diazinon	ND	0.05	"							
Malathion	ND	0.05	"							
Surrogate: Triphenyl phosphate	0.287		"	0.250		115	60-130			
Surrogate: Tributylphosphate	0.278		"	0.250		111	60-130			

LCS (6062031-BS1)

Prepared: 06/21/06 Analyzed: 06/27/06

Bolstar	0.48	0.10	ug/l	0.500		96	60-130			
Diazinon	0.49	0.05	"	0.500		98	60-130			
Ethoprop	0.53	0.05	"	0.500		106	60-130			
Mevinphos	0.58	0.25	"	0.500		116	60-130			
Methyl parathion	0.41	0.10	"	0.500		82	60-130			
Phorate	0.48	0.05	"	0.500		96	60-130			
Ronnel	0.44	0.25	"	0.500		88	60-130			
Trichlorinate	0.51	0.05	"	0.500		102	60-130			
Surrogate: Triphenyl phosphate	0.292		"	0.250		117	60-130			
Surrogate: Tributylphosphate	0.216		"	0.250		86	60-130			

LCS Dup (6062031-BS1)

Prepared: 06/21/06 Analyzed: 06/27/06

Bolstar	0.50	0.10	ug/l	0.500		100	60-130	4	30	
Diazinon	0.57	0.05	"	0.500		114	60-130	15	30	
Ethoprop	0.55	0.05	"	0.500		110	60-130	4	30	
Mevinphos	0.62	0.25	"	0.500		124	60-130	7	30	
Methyl parathion	0.46	0.10	"	0.500		92	60-130	11	30	
Phorate	0.55	0.05	"	0.500		110	60-130	14	30	
Ronnel	0.53	0.25	"	0.500		106	60-130	19	30	
Trichlorinate	0.58	0.05	"	0.500		116	60-130	13	30	
Surrogate: Triphenyl phosphate	0.279		"	0.250		112	60-130			
Surrogate: Tributylphosphate	0.306		"	0.250		122	60-130			

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6062330										
Blank (6062330-BLK1)				Prepared: 06/21/06 Analyzed: 06/23/06						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (6062330-BS1)				Prepared: 06/21/06 Analyzed: 06/23/06						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		90	80-120			
LCS Dup (6062330-BSD1)				Prepared: 06/21/06 Analyzed: 06/23/06						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		90	80-120	0	20	
Duplicate (6062330-DUP1)				Source: 0606363-01		Prepared: 06/21/06 Analyzed: 06/23/06				
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	
Matrix Spike (6062330-MS1)				Source: 0606363-01		Prepared: 06/21/06 Analyzed: 06/23/06				
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	ND	90	80-120			
Matrix Spike Dup (6062330-MSD1)				Source: 0606363-01		Prepared: 06/21/06 Analyzed: 06/23/06				
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	ND	90	80-120	0	20	
Batch 6062710										
Blank (6062710-BLK1)				Prepared: 06/27/06 Analyzed: 06/28/06						
Hardness (Total)	ND	10	mg CaCO3/L							
Duplicate (6062710-DUP1)				Source: 0606383-01		Prepared: 06/27/06 Analyzed: 06/28/06				
Hardness (Total)	176	100	mg CaCO3/L		167			5	20	
Batch 6062713										
Blank (6062713-BLK1)				Prepared & Analyzed: 06/27/06						
Oil & Grease	ND	5	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062713

LCS (6062713-BS1)

Prepared & Analyzed: 06/27/06

Oil & Grease	99	5	mg/l	110	90	75-125			
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LCS Dup (6062713-BSD1)

Prepared & Analyzed: 06/27/06

Oil & Grease	100	5	mg/l	85.7	117	75-125	1	20	
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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606352

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.

GC-05 Results confirmed by GCMS.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.



WESTON
SOLUTIONS

CHAIN OF CUSTODY
№ 11989

DATE 6-20-06 PAGE 1 OF 1

[illegible]

SPECIAL INSTRUCTIONS/COMMENTS:
* Chlorpyrifos, Diazinon, Malathion
only DL = 0.020 or better

* * DL = 0.005 mg/L (Cu, Pb, Cd)
DL = 0.020 mg/L (Zn)

SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):

Airbill No:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
<i>C. Impave</i>	<i>R. Thompson</i>				
Signature <i>Weston Sol.</i>	Signature <i>EMA</i>	Signature	Signature	Signature	Signature
Firm <i>6-20-06</i>	Firm <i>6/20/06 13:39</i>	Firm	Firm	Firm	Firm
Date/Time <i>1229</i>	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

EnviroMatrix



Analytical, Inc.

30 June 2006

Weston Solutions, Inc. - Carlsbad

EMA Log #: 0606330

Attn: Dave Renfrew

2433 Impala Drive

Carlsbad, CA 92008-1514

Project Name: City of Vista Dry Weather Monitoring

Enclosed are the results of analyses for samples received by the laboratory on 06/19/06 16:28. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read 'Dan Verdon', is written over a faint horizontal line.

Dan Verdon

Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-21	0606330-01	Water	06/19/06 10:30	06/19/06 16:28
AH-10	0606330-02	Water	06/19/06 11:30	06/19/06 16:28
AC-2	0606330-03	Water	06/19/06 12:50	06/19/06 16:28
AC-1	0606330-04	Water	06/19/06 14:00	06/19/06 16:28

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Metals (Dissolved) by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-21 (0606330-01) Water Sampled: 06/19/06 10:30 Received: 06/19/06 16:28									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	0.056	0.020	"	"	"	"	"	"	
AH-10 (0606330-02) Water Sampled: 06/19/06 11:30 Received: 06/19/06 16:28									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
AC-2 (0606330-03) Water Sampled: 06/19/06 12:50 Received: 06/19/06 16:28									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
AC-1 (0606330-04) Water Sampled: 06/19/06 14:00 Received: 06/19/06 16:28									
Cadmium	ND	0.005	mg/l	1	6062704	06/27/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	0.047	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-21 (0606330-01) Water Sampled: 06/19/06 10:30 Received: 06/19/06 16:28									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		131 %	60-130		"	"	"	"	S-02, S-04
Surrogate: Tributylphosphate		114 %	60-130		"	"	"	"	
AH-10 (0606330-02) Water Sampled: 06/19/06 11:30 Received: 06/19/06 16:28									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		127 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		112 %	60-130		"	"	"	"	
AC-2 (0606330-03) Water Sampled: 06/19/06 12:50 Received: 06/19/06 16:28									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		125 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		122 %	60-130		"	"	"	"	
AC-1 (0606330-04) Water Sampled: 06/19/06 14:00 Received: 06/19/06 16:28									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6062031	06/21/06	06/27/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		133 %	60-130		"	"	"	"	S-02, S-04
Surrogate: Tributylphosphate		130 %	60-130		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
AH-21 (0606330-01) Water Sampled: 06/19/06 10:30 Received: 06/19/06 16:28									
Hardness (Total)	188	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/27/06	06/27/06	EPA 413.1	
AH-10 (0606330-02) Water Sampled: 06/19/06 11:30 Received: 06/19/06 16:28									
Hardness (Total)	726	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/27/06	06/27/06	EPA 413.1	
AC-2 (0606330-03) Water Sampled: 06/19/06 12:50 Received: 06/19/06 16:28									
Ammonia as N	0.10	0.10	mg/l	1	6062020	06/20/06	06/20/06	SM4500 NH ₃ B,C	
Hardness (Total)	709	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Nitrate as N	4.15	0.50	"	10	6062021	06/20/06	06/20/06	SM4500 NO ₃ E	
Oil & Grease	ND	5	"	1	6062713	06/27/06	06/27/06	EPA 413.1	
Orthophosphate as P	0.16	0.05	"	"	6062120	06/21/06	06/21/06	SM4500 P E	
AC-1 (0606330-04) Water Sampled: 06/19/06 14:00 Received: 06/19/06 16:28									
Hardness (Total)	1410	100	mg CaCO ₃ /L	10	6062710	06/27/06	06/28/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062330	06/21/06	06/23/06	SM5540 C	
Oil & Grease	5	5	"	"	6062713	06/27/06	06/27/06	EPA 413.1	

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062704

Blank (6062704-BLK1)

Prepared & Analyzed: 06/27/06

Lead	ND	0.005	mg/l
Zinc	ND	0.020	"
Cadmium	ND	0.005	"
Copper	ND	0.005	"

LCS (6062704-BS1)

Prepared & Analyzed: 06/27/06

Cadmium	0.099	0.005	mg/l	0.100	99	75-125
Copper	0.098	0.005	"	0.100	98	75-125
Lead	0.102	0.005	"	0.100	102	75-125
Zinc	0.100	0.020	"	0.100	100	75-125

LCS Dup (6062704-BSD1)

Prepared & Analyzed: 06/27/06

Cadmium	0.100	0.005	mg/l	0.100	100	75-125	1	20
Copper	0.098	0.005	"	0.100	98	75-125	0	20
Lead	0.102	0.005	"	0.100	102	75-125	0	20
Zinc	0.101	0.020	"	0.100	101	75-125	1	20

Duplicate (6062704-DUP1)

Source: 0606330-01

Prepared & Analyzed: 06/27/06

Lead	ND	0.005	mg/l	ND				20
Zinc	ND	0.200	"	0.056				20
Copper	ND	0.050	"	0.004				20
Cadmium	ND	0.005	"	0.002				20

Matrix Spike (6062704-MS1)

Source: 0606330-01

Prepared & Analyzed: 06/27/06

Copper	0.125	0.005	mg/l	0.100	0.004	121	75-125
Lead	0.122	0.005	"	0.100	ND	122	75-125
Zinc	0.172	0.020	"	0.100	0.056	116	75-125
Cadmium	0.106	0.005	"	0.100	0.002	104	75-125

QM-06

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062704

Matrix Spike Dup (6062704-MSD1)		Source: 0606330-01			Prepared & Analyzed: 06/27/06					
Cadmium	0.105	0.005	mg/l	0.100	0.002	103	75-125	0.9	20	
Copper	0.123	0.005	"	0.100	0.004	119	75-125	2	20	
Lead	0.116	0.005	"	0.100	ND	116	75-125	5	20	
Zinc	0.167	0.020	"	0.100	0.056	111	75-125	3	20	QM-06

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062031

Blank (6062031-BLK1)

Prepared: 06/21/06 Analyzed: 06/27/06

Chlorpyrifos	ND	0.05	ug/l							
Diazinon	ND	0.05	"							
Malathion	ND	0.05	"							
Surrogate: Triphenyl phosphate	0.287		"	0.250		115	60-130			
Surrogate: Tributylphosphate	0.278		"	0.250		111	60-130			

LCS (6062031-BS1)

Prepared: 06/21/06 Analyzed: 06/27/06

Bolstar	0.48	0.10	ug/l	0.500		96	60-130			
Diazinon	0.49	0.05	"	0.500		98	60-130			
Ethoprop	0.53	0.05	"	0.500		106	60-130			
Mevinphos	0.58	0.25	"	0.500		116	60-130			
Methyl parathion	0.41	0.10	"	0.500		82	60-130			
Phorate	0.48	0.05	"	0.500		96	60-130			
Ronnel	0.44	0.25	"	0.500		88	60-130			
Trichlorinate	0.51	0.05	"	0.500		102	60-130			
Surrogate: Triphenyl phosphate	0.292		"	0.250		117	60-130			
Surrogate: Tributylphosphate	0.216		"	0.250		86	60-130			

LCS Dup (6062031-BS1)

Prepared: 06/21/06 Analyzed: 06/27/06

Bolstar	0.50	0.10	ug/l	0.500		100	60-130	4	30	
Diazinon	0.57	0.05	"	0.500		114	60-130	15	30	
Ethoprop	0.55	0.05	"	0.500		110	60-130	4	30	
Mevinphos	0.62	0.25	"	0.500		124	60-130	7	30	
Methyl parathion	0.46	0.10	"	0.500		92	60-130	11	30	
Phorate	0.55	0.05	"	0.500		110	60-130	14	30	
Ronnel	0.53	0.25	"	0.500		106	60-130	19	30	
Trichlorinate	0.58	0.05	"	0.500		116	60-130	13	30	
Surrogate: Triphenyl phosphate	0.279		"	0.250		112	60-130			
Surrogate: Tributylphosphate	0.306		"	0.250		122	60-130			

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EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6062020										
Blank (6062020-BLK1)				Prepared & Analyzed: 06/20/06						
Ammonia as N	ND	0.10	mg/l							
LCS (6062020-BS1)				Prepared & Analyzed: 06/20/06						
Ammonia as N	0.92	0.10	mg/l	0.820		112	80-120			
LCS Dup (6062020-BSD1)				Prepared & Analyzed: 06/20/06						
Ammonia as N	0.91	0.10	mg/l	0.820		111	80-120	1	20	
Duplicate (6062020-DUP1)				Source: 0606330-03		Prepared & Analyzed: 06/20/06				
Ammonia as N	0.09	0.10	mg/l		0.10			11	20	
Duplicate (6062020-DUP2)				Source: 0606291-11		Prepared & Analyzed: 06/21/06				
Ammonia as N	18.3	2.50	mg/l		18.2			0.5	20	
Duplicate (6062020-DUP3)				Source: 0606291-11		Prepared & Analyzed: 06/21/06				
Ammonia as N	17.7	2.50	mg/l		18.2			3	20	
Duplicate (6062020-DUP4)				Source: 0606291-11		Prepared: 06/20/06 Analyzed: 06/22/06				
Ammonia as N	18.0	2.50	mg/l		18.2			1	20	
Matrix Spike (6062020-MS1)				Source: 0606330-03		Prepared & Analyzed: 06/20/06				
Ammonia as N	1.02	0.10	mg/l	0.820	0.10	112	80-120			
Matrix Spike Dup (6062020-MSD1)				Source: 0606330-03		Prepared & Analyzed: 06/20/06				
Ammonia as N	0.98	0.10	mg/l	0.820	0.10	107	80-120	4	20	
Batch 6062021										
Blank (6062021-BLK1)				Prepared & Analyzed: 06/20/06						
Nitrate as N	ND	0.05	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6062021										
LCS (6062021-BS1)				Prepared & Analyzed: 06/20/06						
Nitrate as N	0.50	0.05	mg/l	0.500		100	80-120			
LCS Dup (6062021-BSD1)				Prepared & Analyzed: 06/20/06						
Nitrate as N	0.50	0.05	mg/l	0.500		100	80-120	0	20	
Duplicate (6062021-DUP1)		Source: 0606330-03		Prepared & Analyzed: 06/20/06						
Nitrate as N	4.02	0.50	mg/l		4.15			3	20	
Duplicate (6062021-DUP2)		Source: 0606291-11		Prepared & Analyzed: 06/21/06						
Nitrate as N	3.87	0.50	mg/l		3.78			2	20	
Duplicate (6062021-DUP3)		Source: 0606291-11		Prepared & Analyzed: 06/21/06						
Nitrate as N	3.81	0.50	mg/l		3.78			0.8	20	
Matrix Spike (6062021-MS1)		Source: 0606330-03		Prepared & Analyzed: 06/20/06						
Nitrate as N	13.3	1.00	mg/l	10.0	4.15	92	80-120			
Matrix Spike Dup (6062021-MSD1)		Source: 0606330-03		Prepared & Analyzed: 06/20/06						
Nitrate as N	13.5	1.00	mg/l	10.0	4.15	94	80-120	1	20	
Reference (6062021-SRM1)				Prepared & Analyzed: 06/20/06						
Nitrate as N	5.99	0.50	mg/l	6.28		95	89-109			
Batch 6062120										
Blank (6062120-BLK1)				Prepared & Analyzed: 06/21/06						
Orthophosphate as P	ND	0.05	mg/l							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062120

LCS (6062120-BS1)

Prepared & Analyzed: 06/21/06

Orthophosphate as P	0.56	0.05	mg/l	0.500	112	80-120
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LCS Dup (6062120-BSD1)

Prepared & Analyzed: 06/21/06

Orthophosphate as P	0.52	0.05	mg/l	0.500	104	80-120	7	20
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Duplicate (6062120-DUP1)

Source: 0606330-03

Prepared & Analyzed: 06/21/06

Orthophosphate as P	0.20	0.05	mg/l	0.16	22	20	QR-06
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Matrix Spike (6062120-MS1)

Source: 0606330-03

Prepared & Analyzed: 06/21/06

Orthophosphate as P	0.65	0.05	mg/l	0.500	0.16	98	80-120
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Matrix Spike Dup (6062120-MSD1)

Source: 0606330-03

Prepared & Analyzed: 06/21/06

Orthophosphate as P	0.70	0.05	mg/l	0.500	0.16	108	80-120	7	20
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Batch 6062330

Blank (6062330-BLK1)

Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	ND	0.5	mg/l
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LCS (6062330-BS1)

Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	90	80-120
----------------------------------	-----	-----	------	------	----	--------

LCS Dup (6062330-BSD1)

Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	90	80-120	0	20
----------------------------------	-----	-----	------	------	----	--------	---	----

Duplicate (6062330-DUP1)

Source: 0606363-01

Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	ND	0.5	mg/l	ND	20
----------------------------------	----	-----	------	----	----

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6062330

Matrix Spike (6062330-MS1) Source: 0606363-01 Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	ND	90	80-120			
----------------------------------	-----	-----	------	------	----	----	--------	--	--	--

Matrix Spike Dup (6062330-MSD1) Source: 0606363-01 Prepared: 06/21/06 Analyzed: 06/23/06

Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	ND	90	80-120	0	20	
----------------------------------	-----	-----	------	------	----	----	--------	---	----	--

Batch 6062710

Blank (6062710-BLK1) Prepared: 06/27/06 Analyzed: 06/28/06

Hardness (Total)	ND	10	mg CaCO3/L							
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Duplicate (6062710-DUP1) Source: 0606383-01 Prepared: 06/27/06 Analyzed: 06/28/06

Hardness (Total)	176	100	mg CaCO3/L		167			5	20	
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Batch 6062713

Blank (6062713-BLK1) Prepared & Analyzed: 06/27/06

Oil & Grease	ND	5	mg/l							
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LCS (6062713-BS1) Prepared & Analyzed: 06/27/06

Oil & Grease	99	5	mg/l	110		90	75-125			
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LCS Dup (6062713-BSD1) Prepared & Analyzed: 06/27/06

Oil & Grease	100	5	mg/l	85.7		117	75-125	1	20	
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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606330

Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

QR-06 The RPD value was exceeded due to the sample concentration being less than 10 times the reporting limit. The QC batch was accepted based on the LCS or QCS results.

QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.

GC-05 Results confirmed by GCMS.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.



WESTON
SOLUTIONS

- # CHAIN OF CUSTODY
- ## 12210

DATE 6.19.04 PAGE 1 OF 2

SPECIAL INSTRUCTIONS/COMMENTS:

SPECIAL INSTRUCTIONS/COMMENTS:
Sampled by: LC & CF

DL = 0.005 mg/L (Cu Pb Cd)
DL = 0.020 mg/L (Zn)

~~Chlorpyrifos, diazinon, malathion only. DL=0.020 or better~~

SHIPPING: 0		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:		Airbill No:			
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
<i>W. Camp</i> Signature	<i>B. Thompson</i> Signature				
Weston Sol.	EMA				
Firm	Firm	Firm	Firm	Firm	Firm
6-19-06	6/19/06 1628				
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE – return to originator • YELLOW – lab • PINK – retained by originator



WESTON
SOLUTIONS

- CHAIN OF CUSTODY**
12212

[illegible]

SPECIAL INSTRUCTIONS/COMMENTS:	
Sampled by : Lawrence Campagna & S. Adams	
SHIPPING:	SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):

SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):

Airbill No:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature <i>C. Long</i>	Signature <i>Al Thompson</i>	Signature	Signature	Signature	Signature
Firm <i>Western Sol.</i>	Firm <i>EMA</i>	Firm	Firm	Firm	Firm
Date/Time <i>6-19-06 11:27</i>	Date/Time <i>6/19/06 1627</i>	Date/Time	Date/Time	Date/Time	Date/Time

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

602



14 July 2006

Weston Solutions, Inc. - Carlsbad

EMA Log #: 0606496

Attn: Dave Renfrew

2433 Impala Drive

Carlsbad, CA 92008-1514

Project Name: City of Vista Dry Weather Monitoring

Enclosed are the results of analyses for samples received by the laboratory on 06/30/06 09:18. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.


Dan Verdon

Laboratory Director

CA ELAP Certification #: 2564

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BV-8	0606496-01	Water	06/29/06 09:45	06/30/06 09:18
BV-18	0606496-02	Water	06/29/06 10:30	06/30/06 09:18

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Metals (Dissolved) by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BV-8 (0606496-01) Water Sampled: 06/29/06 09:45 Received: 06/30/06 09:18									
Cadmium	ND	0.005	mg/l	1	6070605	07/06/06	07/06/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
BV-18 (0606496-02) Water Sampled: 06/29/06 10:30 Received: 06/30/06 09:18									
Cadmium	ND	0.005	mg/l	1	6070605	07/06/06	07/06/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BV-8 (0606496-01) Water Sampled: 06/29/06 09:45 Received: 06/30/06 09:18									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6070316	07/03/06	07/07/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		101 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		116 %	60-130		"	"	"	"	
BV-18 (0606496-02) Water Sampled: 06/29/06 10:30 Received: 06/30/06 09:18									GC-05
Chlorpyrifos	ND	0.05	ug/l	1	6070316	07/03/06	07/07/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
Surrogate: Triphenyl phosphate		107 %	60-130		"	"	"	"	
Surrogate: Tributylphosphate		110 %	60-130		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BV-8 (0606496-01) Water Sampled: 06/29/06 09:45 Received: 06/30/06 09:18									
Hardness (Total)	431	100	mg CaCO ₃ /L	10	6071016	07/10/06	07/11/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6070707	06/30/06	07/07/06	SM5540 C	
Oil & Grease	ND	5	"	"	6070513	07/05/06	07/05/06	EPA 413.1	
BV-18 (0606496-02) Water Sampled: 06/29/06 10:30 Received: 06/30/06 09:18									
Hardness (Total)	818	100	mg CaCO ₃ /L	10	6071016	07/10/06	07/11/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6070707	06/30/06	07/07/06	SM5540 C	
Oil & Grease	ND	5	"	"	6070513	07/05/06	07/05/06	EPA 413.1	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070605										
Blank (6070605-BLK1)				Prepared & Analyzed: 07/06/06						
Lead	ND	0.005	mg/l							
Copper	ND	0.005	"							
Zinc	ND	0.020	"							
Cadmium	ND	0.005	"							
LCS (6070605-BS1)				Prepared & Analyzed: 07/06/06						
Copper	0.103	0.005	mg/l	0.100		103	75-125			
Cadmium	0.100	0.005	"	0.100		100	75-125			
Lead	0.103	0.005	"	0.100		103	75-125			
Zinc	0.101	0.020	"	0.100		101	75-125			
LCS Dup (6070605-BSD1)				Prepared & Analyzed: 07/06/06						
Zinc	0.103	0.020	mg/l	0.100		103	75-125	2	20	
Cadmium	0.100	0.005	"	0.100		100	75-125	0	20	
Lead	0.103	0.005	"	0.100		103	75-125	0	20	
Copper	0.102	0.005	"	0.100		102	75-125	1	20	
Duplicate (6070605-DUP1)				Source: 0606496-01		Prepared & Analyzed: 07/06/06				
Zinc	0.010	0.020	mg/l		0.011			10	20	
Lead	ND	0.005	"		ND				20	
Copper	0.004	0.005	"		0.004			0	20	
Cadmium	ND	0.005	"		ND				20	
Matrix Spike (6070605-MS1)				Source: 0606496-01		Prepared & Analyzed: 07/06/06				
Zinc	0.116	0.020	mg/l	0.100	0.011	105	75-125			
Lead	0.110	0.005	"	0.100	ND	110	75-125			
Copper	0.109	0.005	"	0.100	0.004	105	75-125			
Cadmium	0.085	0.005	"	0.100	ND	85	75-125			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 6070605									
Matrix Spike Dup (6070605-MSD1)		Source: 0606496-01			Prepared & Analyzed: 07/06/06				
Lead	0.116	0.005	mg/l	0.100	ND	116	75-125	5	20
Copper	0.114	0.005	"	0.100	0.004	110	75-125	4	20
Cadmium	0.093	0.005	"	0.100	ND	93	75-125	9	20
Zinc	0.120	0.020	"	0.100	0.011	109	75-125	3	20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070316										
Blank (6070316-BLK1)										
					Prepared: 07/03/06 Analyzed: 07/07/06					
Chlorpyrifos	ND	0.05	ug/l							
Diazinon	ND	0.05	"							
Malathion	ND	0.05	"							
Surrogate: Triphenyl phosphate	0.216		"	0.250		86	60-130			
Surrogate: Tributylphosphate	0.271		"	0.250		108	60-130			
LCS (6070316-BS1)										
					Prepared: 07/03/06 Analyzed: 07/06/06					
Bolstar	0.52	0.10	ug/l	0.500		104	60-130			
Diazinon	0.55	0.05	"	0.500		110	60-130			
Ethoprop	0.52	0.05	"	0.500		104	60-130			
Mevinphos	0.60	0.25	"	0.500		120	60-130			
Methyl parathion	0.40	0.10	"	0.500		80	60-130			
Phorate	0.52	0.05	"	0.500		104	60-130			
Ronnel	0.50	0.25	"	0.500		100	60-130			
Trichlorinate	0.58	0.05	"	0.500		116	60-130			
Surrogate: Triphenyl phosphate	0.224		"	0.250		90	60-130			
Surrogate: Tributylphosphate	0.229		"	0.250		92	60-130			
LCS Dup (6070316-BSD1)										
					Prepared: 07/03/06 Analyzed: 07/07/06					
Bolstar	0.50	0.10	ug/l	0.500		100	60-130	4	30	
Diazinon	0.54	0.05	"	0.500		108	60-130	2	30	
Ethoprop	0.48	0.05	"	0.500		96	60-130	8	30	
Mevinphos	0.60	0.25	"	0.500		120	60-130	0	30	
Methyl parathion	0.42	0.10	"	0.500		84	60-130	5	30	
Phorate	0.53	0.05	"	0.500		106	60-130	2	30	
Ronnel	0.50	0.25	"	0.500		100	60-130	0	30	
Trichlorinate	0.58	0.05	"	0.500		116	60-130	0	30	
Surrogate: Triphenyl phosphate	0.231		"	0.250		92	60-130			
Surrogate: Tributylphosphate	0.184		"	0.250		74	60-130			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070513										
Blank (6070513-BLK1)					Prepared & Analyzed: 07/05/06					
Oil & Grease	ND	5	mg/l							
LCS (6070513-BS1)					Prepared & Analyzed: 07/05/06					
Oil & Grease	92	5	mg/l	102		90	75-125			
LCS Dup (6070513-BSD1)					Prepared & Analyzed: 07/05/06					
Oil & Grease	88	5	mg/l	89.2		99	75-125	4	20	
Batch 6070707										
Blank (6070707-BLK1)					Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (6070707-BS1)					Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		90	80-120			
LCS Dup (6070707-BSD1)					Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	0.8	0.5	mg/l	1.00		80	80-120	12	20	
Duplicate (6070707-DUP1)					Source: 0606496-02 Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	ND	0.5	mg/l		ND				20	
Matrix Spike (6070707-MS1)					Source: 0606496-02 Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	ND	100	80-120			
Matrix Spike Dup (6070707-MSD1)					Source: 0606496-02 Prepared: 06/30/06 Analyzed: 07/07/06					
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00	ND	90	80-120	11	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 6071016

Blank (6071016-BLK1)

Prepared: 07/10/06 Analyzed: 07/11/06

Hardness (Total) ND 10 mg CaCO₃/L

Duplicate (6071016-DUP1)

Source: 0606504-01

Prepared: 07/10/06 Analyzed: 07/11/06

Hardness (Total) 11 10 mg CaCO₃/L 11 0 20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606496

Notes and Definitions

GC-05 Results confirmed by GCMS.

ND Analyte NOT DETECTED at or above the reporting limit

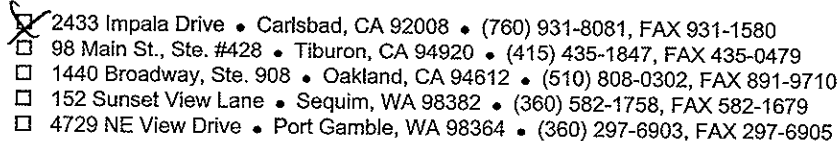
NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





№ 11923

DATE 10-29-06 PAGE 1 OF 1

[illegible]

WHITE – return to originator • YELLOW – lab • PINK – retained by originator

EnviroMatrix



Analytical, Inc.

27 July 2006

Weston Solutions, Inc. - Carlsbad

EMA Log #: 0606444

Attn: Dave Renfrew

2433 Impala Drive

Carlsbad, CA 92008-1514

Project Name: City of Vista Dry Weather Monitoring

Enclosed are the results of analyses for samples received by the laboratory on 06/27/06 16:40. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that this data is in compliance both technically and for completeness.

A handwritten signature in black ink, appearing to read 'Dan Verdon', is written over a faint, light-colored grid background.

Dan Verdon

Laboratory Director

CA ELAP Certification #: 2564

4340 Viewridge Avenue, Suite A - San Diego, California 92123 - (858) 560-7717 - Fax (858) 560-7763
Analytical Chemistry Laboratory

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BVC-3	0606444-01	Water	06/27/06 09:10	06/27/06 16:40
BV-6	0606444-02	Water	06/27/06 10:20	06/27/06 16:40

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Metals (Dissolved) by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BVC-3 (0606444-01) Water Sampled: 06/27/06 09:10 Received: 06/27/06 16:40									
Cadmium	ND	0.005	mg/l	1	6062917	06/29/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	
BV-6 (0606444-02) Water Sampled: 06/27/06 10:20 Received: 06/27/06 16:40									
Cadmium	ND	0.005	mg/l	1	6062917	06/29/06	06/29/06	EPA 6020	
Copper	ND	0.005	"	"	"	"	"	"	
Lead	ND	0.005	"	"	"	"	"	"	
Zinc	ND	0.020	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BVC-3 (0606444-01) Water Sampled: 06/27/06 09:10 Received: 06/27/06 16:40									
Chlorpyrifos	ND	0.05	ug/l	1	6062904	06/29/06	07/04/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
<i>Surrogate: Triphenyl phosphate</i>		118 %	60-130		"	"	"	"	
<i>Surrogate: Tributylphosphate</i>		126 %	60-130		"	"	"	"	
BV-6 (0606444-02) Water Sampled: 06/27/06 10:20 Received: 06/27/06 16:40									
Chlorpyrifos	ND	0.05	ug/l	1	6062904	06/29/06	07/04/06	EPA 8141A	
Diazinon	ND	0.05	"	"	"	"	"	"	
Malathion	ND	0.05	"	"	"	"	"	"	
<i>Surrogate: Triphenyl phosphate</i>		129 %	60-130		"	"	"	"	
<i>Surrogate: Tributylphosphate</i>		125 %	60-130		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix Analytical, Inc.



Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Conventional Chemistry Parameters by Standard/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
BVC-3 (0606444-01) Water Sampled: 06/27/06 09:10 Received: 06/27/06 16:40									
Hardness (Total)	602	100	mg CaCO3/L	10	6070501	07/05/06	07/06/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062919	06/27/06	06/29/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	
BV-6 (0606444-02) Water Sampled: 06/27/06 10:20 Received: 06/27/06 16:40									
Hardness (Total)	538	100	mg CaCO3/L	10	6070501	07/05/06	07/06/06	EPA 200.7	
Methylene Blue Active Substances	ND	0.5	mg/l	1	6062919	06/27/06	06/29/06	SM5540 C	
Oil & Grease	ND	5	"	"	6062713	06/28/06	06/28/06	EPA 413.1	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 6062917

Blank (6062917-BLK1)

Prepared & Analyzed: 06/29/06

Lead	ND	0.005	mg/l
Copper	ND	0.005	"
Zinc	ND	0.020	"
Cadmium	ND	0.005	"

LCS (6062917-BS1)

Prepared & Analyzed: 06/29/06

Lead	0.098	0.005	mg/l	0.100	98	75-125
Copper	0.095	0.005	"	0.100	95	75-125
Zinc	0.095	0.020	"	0.100	95	75-125
Cadmium	0.097	0.005	"	0.100	97	75-125

LCS Dup (6062917-BSD1)

Prepared & Analyzed: 06/29/06

Zinc	0.095	0.020	mg/l	0.100	95	75-125	0	20
Cadmium	0.096	0.005	"	0.100	96	75-125	1	20
Lead	0.097	0.005	"	0.100	97	75-125	1	20
Copper	0.095	0.005	"	0.100	95	75-125	0	20

Duplicate (6062917-DUP1)

Source: 0606430-01

Prepared & Analyzed: 06/29/06

Zinc	0.012	0.020	mg/l	0.014			15	20
Lead	ND	0.005	"	ND				20
Copper	0.001	0.005	"	0.002			67	20
Cadmium	ND	0.005	"	ND				20

QR-04

Matrix Spike (6062917-MS1)

Source: 0606430-01

Prepared & Analyzed: 06/29/06

Zinc	0.122	0.020	mg/l	0.100	0.014	108	75-125
Lead	0.119	0.005	"	0.100	ND	119	75-125
Copper	0.112	0.005	"	0.100	0.002	110	75-125
Cadmium	0.107	0.005	"	0.100	ND	107	75-125

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Metals (Dissolved) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch 6062917

Matrix Spike Dup (6062917-MSD1)		Source: 0606430-01			Prepared & Analyzed: 06/29/06					
Lead	0.106	0.005	mg/l	0.100	ND	106	75-125	12	20	
Copper	0.101	0.005	"	0.100	0.002	99	75-125	10	20	
Cadmium	0.085	0.005	"	0.100	ND	85	75-125	23	20	QM-04
Zinc	0.113	0.020	"	0.100	0.014	99	75-125	8	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 6062904

Blank (6062904-BLK1)

Prepared: 06/29/06 Analyzed: 07/04/06

Chlorpyrifos	ND	0.05	ug/l							
Diazinon	ND	0.05	"							
Malathion	ND	0.05	"							
Surrogate: Triphenyl phosphate	0.213		"	0.250		85	60-130			
Surrogate: Tributylphosphate	0.253		"	0.250		101	60-130			

LCS (6062904-BS1)

Prepared: 06/29/06 Analyzed: 07/04/06

Bolstar	0.45	0.10	ug/l	0.500		90	60-130			
Diazinon	0.54	0.05	"	0.500		108	60-130			
Ethoprop	0.50	0.05	"	0.500		100	60-130			
Mevinphos	0.51	0.25	"	0.500		102	60-130			
Methyl parathion	0.41	0.10	"	0.500		82	60-130			
Phorate	0.52	0.05	"	0.500		104	60-130			
Ronnel	0.52	0.25	"	0.500		104	60-130			
Trichlorinate	0.55	0.05	"	0.500		110	60-130			
Surrogate: Triphenyl phosphate	0.241		"	0.250		96	60-130			
Surrogate: Tributylphosphate	0.246		"	0.250		98	60-130			

LCS Dup (6062904-BSD1)

Prepared: 06/29/06 Analyzed: 07/04/06

Bolstar	0.47	0.10	ug/l	0.500		94	60-130	4	30	
Diazinon	0.53	0.05	"	0.500		106	60-130	2	30	
Ethoprop	0.52	0.05	"	0.500		104	60-130	4	30	
Mevinphos	0.59	0.25	"	0.500		118	60-130	15	30	
Methyl parathion	0.47	0.10	"	0.500		94	60-130	14	30	
Phorate	0.51	0.05	"	0.500		102	60-130	2	30	
Ronnel	0.51	0.25	"	0.500		102	60-130	2	30	
Trichlorinate	0.60	0.05	"	0.500		120	60-130	9	30	
Surrogate: Triphenyl phosphate	0.262		"	0.250		105	60-130			
Surrogate: Tributylphosphate	0.266		"	0.250		106	60-130			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
 Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6062713										
Blank (6062713-BLK1)				Prepared & Analyzed: 06/27/06						
Oil & Grease	ND	5	mg/l							
LCS (6062713-BS1)				Prepared & Analyzed: 06/27/06						
Oil & Grease	99	5	mg/l	110		90	75-125			
LCS Dup (6062713-BSD1)				Prepared & Analyzed: 06/27/06						
Oil & Grease	100	5	mg/l	85.7		117	75-125	1	20	
Batch 6062919										
Blank (6062919-BLK1)				Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	ND	0.5	mg/l							
LCS (6062919-BS1)				Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	0.8	0.5	mg/l	1.00		80	80-120			
LCS Dup (6062919-BSD1)				Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	0.9	0.5	mg/l	1.00		90	80-120	12	20	
Duplicate (6062919-DUP1)		Source: 0606406-01		Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	ND	0.5	mg/l		0.1				20	
Matrix Spike (6062919-MS1)		Source: 0606406-01		Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	1.1	0.5	mg/l	1.00	0.1	100	80-120			
Matrix Spike Dup (6062919-MSD1)		Source: 0606406-01		Prepared: 06/27/06 Analyzed: 06/29/06						
Methylene Blue Active Substances	1.0	0.5	mg/l	1.00	0.1	90	80-120	10	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Conventional Chemistry Parameters by Standard/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6070501

Blank (6070501-BLK1)

Prepared: 07/05/06 Analyzed: 07/06/06

Hardness (Total) ND 10 mg CaCO3/L

Duplicate (6070501-DUP1)

Source: 0606419-01

Prepared: 07/05/06 Analyzed: 07/06/06

Hardness (Total) 1080 100 mg CaCO3/L 992 8 20

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.

Client Name: Weston Solutions, Inc. - Carlsbad
Project Name: City of Vista Dry Weather Monitoring

EMA Log #: 0606444

Notes and Definitions

QR-04 The RPD between the sample and sample duplicate is not valid since both results are below the reporting limit for this analyte.

QM-04 Visual evaluation of the sample indicates the RPD is above the control limit due to a non-homogeneous sample matrix.

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

EnviroMatrix



Analytical, Inc.



- ## CHAIN OF CUSTODY

12214

DATE 6-27-06 PAGE 1 OF 1

C.2 Microbiology Laboratory Results

Weston Solutions, Inc

Analytical Report

Client: City of Vista
Project: Dry Weather Monitoring
Client Sample ID: 3 Samples-see below
Sampled by: Weston Solutions, Inc.

Date Received: July 19, 2006
Date Test Started: July 19, 2006
Date Test Ended: July 23, 2006
Matrix: Water

Bacterial Analysis Using Multiple Tube Fermentation/MPN

Methods: SM 9221B, C & E

Microorganisms Tested: Total/Fecal Coliforms

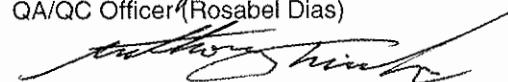
Bacterial Summary

Coliform analyses based on dilutions providing results between 20-16,000,000 MPN/100mL

Client Sample ID	Weston Sample ID	Date Sample Taken	Time Taken	Total Coliforms MPN/100 mL	Fecal Coliforms MPN/100 mL
BV-6	071906 BV-6	7/19/2006	1040	60,000	3,000
AC-1	071906 AC-1	7/19/2006	1000	3,000,000	80,000
BV-8	071906 BV-8	7/19/2006	1100	23,000	2,300



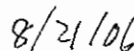
QA/QC Officer (Rosabel Dias)



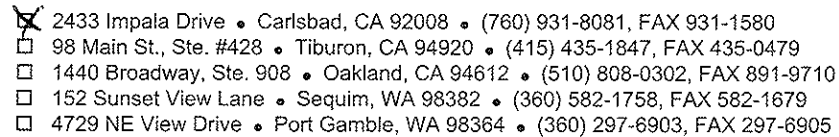
Microbial Lab Supervisor (Anthony Trinh)



Date



Date



12222

DATE 7-19-06 PAGE 1 OF 1

SPECIAL INSTRUCTIONS/COMMENTS: <i>Sampled by Lawrence K. Campagna</i> * NO ENTERO AUTHOR					
SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:		Airbill No:			
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
<i>L. K. Campagna</i>	<i>Lawrence K. Campagna</i>				
Signature	Signature	Signature	Signature	Signature	Signature
<i>Weston Sol.</i>	<i>Weston Sol.</i>				
Firm	Firm	Firm	Firm	Firm	Firm
<i>7-19-06</i>	<i>7/19/06</i>				
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE -- return to originator • YELLOW -- lab • PINK -- retained by originator

Weston Solutions, Inc

Analytical Report

Client: City of Vista
Project: Dry Weather Monitoring
Client Sample ID: 5 Samples-see below
Sampled by: Weston Solutions, Inc.

Date Received: June 20, 2006
Date Test Started: June 20, 2006
Date Test Ended: June 24, 2006
Matrix: Water

Bacterial Analysis Using Multiple Tube Fermentation/MPN

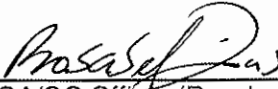
Methods: SM 9221B, C & E and SM 9230B

Microorganisms Tested: Total/Fecal Coliforms and Enterococci

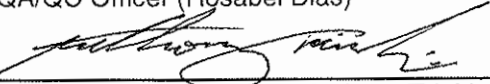
Bacterial Summary

Coliform analyses based on dilutions providing results between 20-1,600,000 MPN/100mL
Analyses for Enterococci are based on dilutions providing results between 20-160,000 MPN/100mL

Client Sample ID	Weston Sample ID	Date Sample Taken	Time Taken	Total Coliforms MPN/100 mL	Fecal Coliforms MPN/100 mL	Enterococci MPN/100 mL
BV-19	062006 BV-19	6/20/2006	1015	7,000	130	358E
BVC-1	062006 BVC-1	6/20/2006	0930	30,000	800	2,300
MV-1	062006 MV-1	6/20/2006	1100	17,000	800	3,000
BVC-2	062006 BVC-2	6/20/2006	1145	3,000	170	500
GC-1	062006 GC-1	6/20/2006	0830	5,000	300	750E



QA/QC Officer (Rosabel Dias)



Microbial Lab Supervisor (Anthony Trinh)

07/13/2006
Date

7/13/06
Date



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CHAIN OF CUSTODY

12213

DATE 6.20.06 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER					NUMBER & TYPE OF CONTAINERS (PLASTIC)	ANALYSIS/TEST REQUESTED					PRESERVED HOW/ COMMENTS	SAMPLE TEMP. UPON RECEIPT	FOR WESTON USE ONLY								
PROJECT MANAGER						total	coliform	fecal coliform	entero	temp			WESTON LAB ID								
COMPANY																					
ADDRESS																					
PHONE/FAX																					
SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS																	
BVC-2	6.20.06	1145	H ₂ O	SA											X	X	X			ICE/ST	062006 BVC-2
MV-1		1100													X	X	X				062006 MV-1
BV-19		1015													X	X	X				062006 BVC + ch BV-19
BVC-1		0930													X	X	X				062006 BVC-1
GC-1		0830			X	X	X				062006 GC-1										
Temp blank	X	0830	X	X				X		4.0°C											

SPECIAL INSTRUCTIONS/COMMENTS:

Sampled by: Laurence Campagna & Sam Adams

SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature <u>[Signature]</u>	Signature <u>[Signature]</u>	Signature	Signature	Signature	Signature
Firm <u>WESTON</u>	Firm <u>Weston</u>	Firm	Firm	Firm	Firm
Date/Time <u>6.20.06 1255</u>	Date/Time <u>6/20/06 1255</u>	Date/Time	Date/Time	Date/Time	Date/Time

Weston Solutions, Inc

Analytical Report

Client: City of Vista
Project: Dry Weather Monitoring
Client Sample ID: 2 Samples-see below
Sampled by: Weston Solutions, Inc.

Date Received: June 29, 2006
Date Test Started: June 29, 2006
Date Test Ended: July 3, 2006
Matrix: Water

Bacterial Analysis Using Multiple Tube Fermentation/MPN

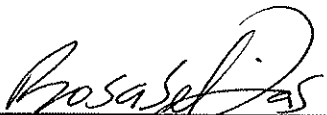
Methods: SM 9221B, C & E and SM 9230B

Microorganisms Tested: Total/Fecal Coliforms and Enterococci

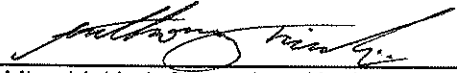
Bacterial Summary

Coliform analyses based on dilutions providing results between 20-16,000,000 MPN/100mL
Analyses for Enterococci are based on dilutions providing results between 20-16,000,000 MPN/100mL

Client Sample ID	Weston Sample ID	Date Sample Taken	Time Taken	Total Coliforms MPN/100 mL	Fecal Coliforms MPN/100 mL	Enterococci MPN/100 mL
BV-8	062906 BV-8	6/29/2006	0945	60,000	50,000	3,000
BV-18	062906 BV-18	6/29/2006	1030	5,000	700	1,300



QA/QC Officer (Rosabel Dias)



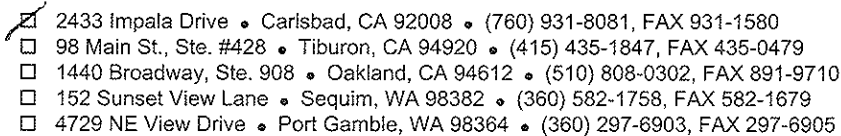
Microbial Lab Supervisor (Anthony Trinh)

07/13/2006

Date


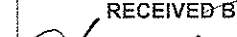
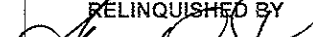

7/13/06

Date



12215

DATE 6-29-06 PAGE 1 OF 1

SPECIAL INSTRUCTIONS/COMMENTS:					
Sampled by Sam Adams and Jennifer Scholte					
SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:		Airbill No:			
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
					
Signature	Signature	Signature	Signature	Signature	Signature
WESTON	Weston	Weston	Weston		
Firm	Firm	Firm	Firm	Firm	Firm
6-29-06 1245	6-29-06 1245	6-29-06 1305	6-29-06 1305		
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

WHITE - return to originator • YELLOW - lab • PINK - retained by originator

Weston Solutions, Inc

Analytical Report

Client: City of Vista
Project: Dry Weather Monitoring
Client Sample ID: 2 Samples-see below
Sampled by: Weston Solutions, Inc.

Date Received: June 27, 2006
Date Test Started: June 27, 2006
Date Test Ended: July 1, 2006
Matrix: Water

Bacterial Analysis Using Multiple Tube Fermentation/MPN

Methods: SM 9221B, C & E and SM 9230B

Microorganisms Tested: Total/Fecal Coliforms and Enterococci


Bacterial Summary

Coliform analyses based on dilutions providing results between 20-1,600,000 MPN/100mL
Analyses for Enterococci are based on dilutions providing results between 20-160,000 MPN/100mL

Client Sample ID	Weston Sample ID	Date Sample Taken	Time Taken	Total Coliforms MPN/100 mL	Fecal Coliforms MPN/100 mL	Enterococci MPN/100 mL
BVC-3	062706 BVC-3	6/27/2006	0910	3,000	500	300
BV-6	062706 BV-6	6/27/2006	1020	50,000	300	1,100



QA/QC Officer (Rosabel Dias)



Microbial Lab Supervisor (Anthony Trinh)

07/13/2006
Date

7/13/06
Date



12997

DATE 10-27-06 PAGE 1 OF 1

WHITE - return to originator • YELLOW - lab • PINK - retained by originator

Weston Solutions, Inc

Analytical Report

Client: City of Vista
Project: Dry Weather Monitoring
Client Sample ID: 4 Samples-see below
Sampled by: Weston Solutions, Inc.

Date Received: June 19, 2006
Date Test Started: June 19, 2006
Date Test Ended: June 23, 2006
Matrix: Water

Bacterial Analysis Using Multiple Tube Fermentation/MPN

Methods: SM 9221B, C & E and SM 9230B

Microorganisms Tested: Total/Fecal Coliforms and Enterococci

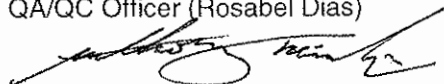
Bacterial Summary

Coliform analyses based on dilutions providing results between 20-1,600,000 MPN/100mL
Analyses for Enterococci are based on dilutions providing results between 20-160,000 MPN/100mL

Client Sample ID	Weston Sample ID	Date Sample Taken	Time Taken	Total Coliforms MPN/100 mL	Fecal Coliforms MPN/100 mL	Enterococci MPN/100 mL
AC-1	061906 AC-1	6/19/2006	1400	70,000	1,300	5,000
AC-2	061906 AC-2	6/19/2006	1250	1,100	40	300
AH-10	061906 AH-10	6/19/2006	1130	5,000	170	800
AH-21	061906 AH-21	6/19/2006	1030	230	20	40



QA/QC Officer (Rosabel Dias)



Microbial Lab Supervisor (Anthony Trinh)

07/13/2006

Date

7/13/06

Date



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CHAIN OF CUSTODY

12211

DATE 6.19.06 PAGE 1 OF 1

PROJECT NAME / SURVEY / PROJECT NUMBER					NUMBER & TYPE OF CONTAINERS (PLASTIC)	ANALYSIS/TEST REQUESTED					PRESERVED HOW/ COMMENTS	SAMPLE TEMP. UPON RECEIPT	WESTON LAB ID	
PROJECT MANAGER						ENTERO	FECAL COLIFORM	TOTAL COLIFORM	TEMP	FOR WESTON USE ONLY				
COMPANY														
ADDRESS														
PHONE/FAX														
Vista Dry Weather														
Dave Renfrew														
WESTON														
-See above-														
-See above-														
SAMPLE I.D.	DATE	TIME	MATRIX	INITIALS										
AH-21	6.19.06	1030	H2O	GA	1x100mL	X	X	X			ICE/ST	06/906 AH-21		
AH-10	↓	1130	↓	↓	↓	X	X	X			↓	06/906 AH-10		
AC-2	↓	1250	↓	↓	↓	X	X	X			↓	06/906 AC-2		
AC-1	↓	1400	↓	↓	↓	X	X	X			↓	06/906 AC-1		
temp blank	6.19.06	1030	↓	↓	↓				X		↓	3.0°C		

SPECIAL INSTRUCTIONS/COMMENTS: Sampled by: Laurence Campagna & Sam Adams					
SHIPPING:		SAMPLE CONDITION UPON RECEIPT (FOR WESTON USE ONLY):			
Shipping VIA:		Airbill No:			
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature	Signature	Signature	Signature	Signature	Signature
WESTON	Weston Solutions				
Firm	Firm	Firm	Firm	Firm	Firm
6.19.06 1500	6/19/06 1500				
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

APPENDIX D

Historical Data

Table D.1 Historical Ammonia Results

Station	Ammonia (mg/L)										
	Monitoring Year										
	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AC-1								0.5	0.8	0.4	8.0
AC-2								0.1	0.3	0.2	0.2
AH-1											
AH-10							0.3	0.2	0.3	0.2	0.0
AH-11											
AH-12											
AH-13							0.2	0.3	0.2	0.3	0.1
AH-14											
AH-15											
AH-16											
AH-17							1	0.6	0.8	0.1	0.9
AH-18											
AH-19											
AH-2											
AH-20											
AH-21							0.1	0.2	0.6	1	0.4
AH-22											
AH-3											
AH-4											
AH-5											
AH-6											
AH-7											
AH-8							0.3	0.2	0.4	0.2	0.4
AH-8A								0.2	0.3	0.6	0.2
AH-8B											
AH-9							0.4	0.3	0.3	0.4	0.4
BV-1							1	0.8	0.8	0.4	0.4
BV-10							0.1	0.2	0.2	0.2	0.1
BV-11							0.2	0.2	0.2	0.3	0.2
BV-12								0.5		0.4	
BV-13											
BV-14									0.6	0.6	0.4
BV-15							0.6	0.3	2	0.3	
BV-16											
BV-17											
BV-18							0.2	0.1	0.3	0.2	0.1
BV-19							0.1	0.2	0.3	0.2	0.1
BV-2							0.2	0.2	0.2	0.3	0.2
BV-20											
BV-21											
BV-22											
BV-23											
BV-24							0.2	0.2	0.3	0.3	0.2
BV-25								1		0.6	0.6
BV-3											
BV-4							0.2	0.1	0.2	0.2	0.3
BV-5											
BV-6							0.2	0.1	0.3	0.2	0.2
BV-7											
BV-8							0.2	0.1	0.1	0.2	0.3
BV-9											
BVC-1								0.2	0.2	0.3	0.3
BVC-2								0.1	0.3	0.4	0.1
BVC-3								0.2	0.3	0.3	0.2
G-2											
G-3							0.1	0.2	1		1.5
G-4											1.0
GC-1								0.4	0.3	0.6	0.4
MV-1							0.2	0.1	0.2	0.2	0.1
MV-2											4.0***
MV-3											
SS-1									0.6	0.6	1.5

*** sample color was yellow, likely an interference since test kit colorimetric reading is yellow

Table D.2 Historical MBAS Results

Station	MBAS (mg/L)										
	Monitoring Year										
	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AC-1								0.25	0.25	0.5	0.50
AC-2								0.25	0.25	0.5	0.50
AH-1											
AH-10	0.625	0.25	0.3	0.25	0.3	0.375	0.25	0.25	0.15	0.3	0.50
AH-11											
AH-12											
AH-13		0.3	0.25	0.25	0.25	0.25	0.5	0.25	0.25	0.5	0.25
AH-14											
AH-15											
AH-16											
AH-17	0.5	0.47	0.3	0.56	0.3	0.25	0.37	0.25	0.25	0.8	0.50
AH-18											
AH-19											
AH-2											
AH-20											
AH-21	0.75	0.25	0.3	0.25	0.25	0.25	0.25	0.25	0.25	1	0.25
AH-22											
AH-3											
AH-4											
AH-5											
AH-6											
AH-7											
AH-8	0.5	0.3	0.3	0.25	0.25	0.25	0.37	0.25	0.25	0.3	0.25
AH-8A		0.3	0.25	0.25	0.25	0.25		0.25	0.5	0.3	0.25
AH-8B											
AH-9	0.375	0.37	0.25	0.3	0.25	0.25	0.25	0.25	0.25	0.5	0.50
BV-1	0.5	0.5	0.5	0.37	1	0.75	0.5	0.5	0.5	0.8	3.00
BV-10							0.25	0.25	ND	0.5	0.25
BV-11	0.375	0.3	0.3	0.25	0.25	0.25	0.25	0.25	0.5	0.5	0.25
BV-12	0.25	0.25	0.25	0.25		0.25		0.25		0.25	
BV-13											
BV-14									0.5	0.8	0.50
BV-15	0	0.46	0.3	0.25	0.37	0.25	0.25	0.25	1.5	0.8	
BV-16											
BV-17											
BV-18	0.375	0.4	0.3	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.20
BV-19	0.375	0.37	0.3	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.50
BV-2	0.625	0.3	0.25	0.25	0.25	0.25	0.125	0.5	0.25	0.5	0.25
BV-20											
BV-21											
BV-22											
BV-23											
BV-24	0	0.37	0.3	0.25	0.25	0.25	0.37	0.25	0.25	0.5	0.50
BV-25		0.25	0.25	0.25				0.5		0.5	0.75
BV-3											
BV-4	0.25	0.25	0.3	0.25	0.25	1.375	0.25	0.25	0.25	0.3	0.25
BV-5											
BV-6	0.375	0.25	0.25	0.25	0.25	0.25	0.37	0.25	ND	0.8	0.25
BV-7											
BV-8	0.25	0.4	0.25	0.25	0.25	0.25	0.25	0.25	ND	0.3	0.25
BV-9											
BVC-1								0.25	0.2	0.5	0.50
BVC-2								0.25	0.25	0.5	0.25
BVC-3								0.25	ND	0.5	0.25
G-2											
G-3	0.25	0.25	0.25	0.75	0.25	0.375	0.37	0.5	0.5		0.75
G-4											
GC-1								0.25	ND	0.3	0.70
MV-1							0.125	0.25	0.25	0.3	0.30
MV-3											
SS-1									0.75	0.5	0.75

Table D.3 Historical Nitrate Results

Nitrate (mg/L)											
Station	Monitoring Year										
	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AC-1								0.6	1	0.1	0.2
AC-2								1.5	0.3	7.5	3.8
AH-1											
AH-10			4.6		4	4	0.05	3	2	7.5	6.0
AH-11											
AH-12											
AH-13			5		25	12	5	8	12	15.0	3.5
AH-14											
AH-15											
AH-16											
AH-17			5		6	11	1.8	2	2.5	1.0	1.5
AH-18											
AH-19											
AH-2											
AH-20											
AH-21			0.8		2	2	0.2	0.5	1.5	1.0	0.1
AH-22											
AH-3											
AH-4											
AH-5											
AH-6											
AH-7											
AH-8			5		15	21	10	8	10	15.0	12.0
AH-8A			5		39	21		2	17.5	11.3	15.0
AH-8B											
AH-9			0.4		2.5	1	0.05	0.1	0.2	0.8	0.2
BV-1			0.2	0.55	3	3	0.2	0.6	0.4	0.2	0
BV-10							8	8	13.5	6.0	7.5
BV-11			5	5	36	53	8	8	27	11.3	5.5
BV-12			1.5	0.8		3		0.025		0.2	
BV-13											
BV-14									2	1.0	0.8
BV-15			2.3	0.6	3	2	0.2	0.1	0.1	1.5	
BV-16											
BV-17											
BV-18			5	5	64	58	16	16	36	15.0	9.0
BV-19			5	5	50	67	16	20	36	15.0	15.0
BV-2			2.7	3	4	5	1	2	2.5	4.5	1.0
BV-20											
BV-21											
BV-22											
BV-23											
BV-24			5	5	56	61	10	8	31.5	15.0	9.0
BV-25				1				2		0.1	0
BV-3											
BV-4			0.2		5	4	0.2	0.2	1	0.2	0.3
BV-5											
BV-6			5		7.5	8	5	4.5	4.5	7.5	3.0
BV-7											
BV-8			2.3	2	3	2	0.4	1	1	1.5	0.8
BV-9											
BVC-1								12	27	15.0	12.0
BVC-2								5	22.5	9.0	13.5
BVC-3								1.5	3.5	3.0	2.0
G-2											
G-3			5	5	24	17	14	3	0.2		0.2
G-4											
GC-1								4	0.2	7.5	0.8
MV-1							1.8	8	13.5	7.5	15.0
MV-3											
SS-1									0.4	0.1	0.1

Table D.4 Historical Reactive Phosphorus Results

Reactive Phosphorus (mg/L)											
Station	Monitoring Year										
	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AC-1								0.07	0.3	0.1	0.4
AC-2								0.2	0.7	0.6	0.5
AH-1											
AH-10					9	2	0.16	0.07	0.2	0.6	0.4
AH-11											
AH-12											
AH-13					10	2	0.2	0.07	0.2	0.6	0.3
AH-14											
AH-15											
AH-16											
AH-17					14	2	0.49	0.13	0.6	0.3	0.6
AH-18											
AH-19											
AH-2											
AH-20											
AH-21					12	2	0.08	0.07	0.2	0.1	0.1
AH-22											
AH-3											
AH-4											
AH-5											
AH-6											
AH-7											
AH-8					7.5	1	0.07	0.13	0.6	1.0	0.4
AH-8A					9	2		0.13	0.3	0.4	0.3
AH-8B											
AH-9					8	3	0.49	0.26	1	1.0	1.5
BV-1					9	3	0.49	0.13	0.8	1.0	0.3
BV-10							0.07	0.05	0.1	0.1	0.2
BV-11					9	2	0.1	0.1	0.2	2.0	0.2
BV-12						2		0.13		0.3	
BV-13											
BV-14									1	0.4	0
BV-15					8	2	1.3	0.2	0.6	0.9	
BV-16											
BV-17											
BV-18					12	2	0.16	0.03	0.1	0.3	0.2
BV-19					12	2	0.08	0.07	0.1	0.3	0.1
BV-2					9	3	0.49	0.07	0.1	0.2	0.15
BV-20											
BV-21											
BV-22											
BV-23											
BV-24					8	2	0.26	0.07	0.1	0.3	0.6
BV-25								1.55		3.0	0
BV-3											
BV-4					7.5	2	0.26	0.07	0.3	0.4	0.6
BV-5											
BV-6					8	3	0.2	0.07	0.2	0.2	0.4
BV-7											
BV-8					7.5	2	0.1	0.03	0.1	0.3	0.2
BV-9											
BVC-1								0.065	0.2	0.3	0.2
BVC-2								0.07	0.1	0.6	0.3
BVC-3								0.07	0.1	0.2	0.2
G-2											
G-3					10	3	0.082	0.26	2		1
G-4											
GC-1								0.1	0.1	0.4	0.3
MV-1							0.49	0.03	ND	0.2	0.1
MV-3											
SS-1									0.6	0.4	0.6

Table D.5 Historical Turbidity Results

Turbidity (NTU)											
Station	Monitoring Year										
	1995	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AC-1								9.66	3.1	10	26
AC-2								3.41	1.5	0	2
AH-1											
AH-10							0.37	2.3	1.07	10	43
AH-11											
AH-12											
AH-13							2.82	0.72	5.48	4	308*
AH-14											
AH-15											
AH-16											
AH-17							3.59	1.31	3.53	15	60
AH-18											
AH-19											
AH-2											
AH-20											
AH-21							2.3	5.03	1.03	98	22
AH-22											
AH-3											
AH-4											
AH-5											
AH-6											
AH-7											
AH-8							8.92	2.46	2.86	0	2
AH-8A								1.42	3.82	0	1
AH-8B											
AH-9							6.48	7.85	7.04	8	34
BV-1							11.1	5.91	2.38	2	5
BV-10							4.4	1.49	7.12	9	33
BV-11							0.62	1.94	1.77	1.4	0
BV-12								7.18			
BV-13											
BV-14									37	220	2
BV-15							3.22	5.62	4.13		
BV-16											
BV-17											
BV-18							1.15	2.8	1.36	2.25	152*
BV-19							1.91	1.96	2.67	2.43	3
BV-2							1.61	2.51	2.59	2.28	4
BV-20											
BV-21											
BV-22											
BV-23											
BV-24							4.02	2.13	1.48	1.28	3
BV-25								4.89			196
BV-3											
BV-4							4.35	1.87	2.94	6	12
BV-5											
BV-6							10.22	6.07	2.58	22	30
BV-7											
BV-8							2.36	2.57	1.15	1.3	3
BV-9											
BVC-1								2.62	0.52	0.21	0
BVC-2								5.83	1.49	22	26
BVC-3								2.77	2.79	2.26	5
G-2											
G-3							2.55	9.13	38.5		63
G-4											
GC-1								6.99	4.46	89	13
MV-1							0.99	2.25	1.76		5
MV-3											
SS-1									6.94	9	8

* interference from sampling, flow was clear

Appendix F-1
Newspaper Article on Cleanup Event

Agua Hedionda watershed has been adopted for cleanup by city

By Adam Klawonn

UNION-TRIBUNE STAFF WRITER

July 2, 2005



SEAN MASTERSON

Joseph Hodges, 12, of Oceanside collects garbage at Buena Creek in Vista during a volunteer cleanup project. Joseph's mother, Terese, brother, Jamal, and sister, Wisdom, also helped out.



PAUL HORN / Union-Tribune

VISTA – A mile upstream from Agua Hedionda Lagoon, Diantha Zschoche filled a large trash bag every 20 minutes.

She was among the volunteers slowly cleaning up one of the lagoon's vital tributaries, a goal of Vista officials.

Together, they are lobbying the federal government, and holding an unprecedented number of community cleanups of the Agua Hedionda watershed – the coastal lagoon and the creeks that feed it.

But keeping the issue in sight of those controlling congressional purse strings and recruiting more volunteers is an upstream battle.

"Yeah, you need more people," said Zschoche, 55, of Vista. "It's a good start."

She was one of about 150 people who gathered 1.5 tons of trash, including glass bottles, cigarette butts, cans and sleeping bags ditched along secluded creek beds.

The trash was headed for the lagoon, a natural filter system that feeds into the ocean.

It is the last stop in a 10.6-mile-long watershed that features hiking trails, creeks, three threatened or endangered species and junglelike flora.

Some of the volunteers were high school students looking for community service hours for graduation requirements or to include in college applications.

Other volunteers were retired professionals. Gerald Wroe, 67, had spent more than a decade in manufacturing for a Carlsbad company that made circuit boards.

Watching water discharged with heavy metals influenced him to get involved in cleanups.

"This gives an awareness to the public that you just can't be throwing stuff down the streams," he said.

The Agua Hedionda watershed is one of eight across North County, five of which touch Vista.

However, the Agua Hedionda is the largest one in Vista. It cuts across the lower half of the city and into the lagoon in Carlsbad.

Each city monitors its own creeks, rivers and lagoons for the good of other cities in the watershed. For example, Oceanside watches over Loma Alta watershed, Carlsbad focuses on lagoons such as Batiquitos, Agua Hedionda and Buena Vista, and Escondido and San Marcos share oversight of Escondido Creek.

Vista has adopted the Agua Hedionda watershed – including the lagoon – on behalf of four other cities.

This represents a change for the city since tougher state regulations for better storm-water controls came out in 2001, said Linda Isakson, Vista's storm-water program manager. Until then, the city did little, if anything, to study or scrub the Agua Hedionda and lagoon.

This is the first year Vista officials are coordinating multiple cleanup events for creeks that also flow through other cities.

They unsuccessfully sought \$100,000 in federal funds to write a management plan for the entire Agua Hedionda watershed, which is increasingly threatened by runoff from urban developments that channel silt and bacteria, such as coliform, into the creeks.

The document, which is in place for other watersheds but not the Agua Hedionda, addresses flood control, water quality, the impacts of recreation, and ecosystem management.

The plan done by the U.S. Army Corps of Engineers also would have identified polluted wetlands around Vista that commercial and residential developers could improve to offset the environmental impacts of their own projects.

It would have been a one-stop shop for anyone looking for more details on pollution of the Agua Hedionda watershed and how to fix it.

But Vista's application, which reached federal officials on their March 18 deadline, did not receive funding.

A U.S. House subcommittee on appropriations of which Rep. Darrell Issa, R-Vista, is a member decided against funding it because the application came in too late and money was tight for Army Corps of Engineers projects due to the war in Iraq, an Issa spokesman said.

"The last-minute submission this year put a real handicap on us in what is a very competitive field," Frederick Hill said.

The appropriations bill, without Vista's proposal, went to the House for approval and passed in a 416-13 vote. It is now before the Senate.

However, Issa supports Vista's effort and will look for ways to fund it next year, Hill said.

Isakson said she intends to reapply.

"Sometimes it takes years for it to go through," she said. "You just have to keep putting it back in their face so they remember it."

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

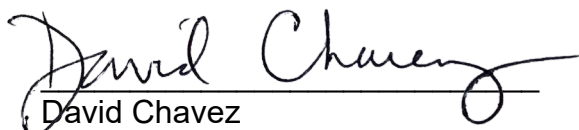
On May 19, 2025, I served the:

- **Current Mailing List dated April 21, 2025**
- **Claimants' Comments on the Revised Draft Proposed Decision and Parameters and Guidelines filed May 16, 2025**
- **San Diego Unified Port District and San Diego County Regional Airport Authority Comments on the Revised Draft Proposed Decision and Parameters and Guidelines filed May 16, 2025**
- **Water Boards' Comments on the Revised Draft Proposed Decision and Parameters and Guidelines filed May 16, 2025**

San Diego Regional Water Quality Control Board Order No. R9-2007-0001, Permit CAS0108758, Parts D.3.a.(3)(b)(iii), D.5.a.(1), D.5.a.(2), D.5.b.(1)(a), D.5.b.(1)(b)(iii-vi), D.5.b.(1)(c), D.5.b.(1)(d), D.5.b.(2), D.5.b.(3), E.2.f., E.2.g., F.1., F.2., F.3., I.1., I.2., I.5., J.3.a.(3)(c)(iv)-(viii), (x)-(xv), the first sentence of L.1. as it applies to the newly mandated activities, and L.1.a.(3)-(6), 07-TC-09-R County of San Diego, Cites of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista, Claimants

by making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on May 19, 2025 at Sacramento, California.



David Chavez
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 4/21/25

**Claim
Number:** 07-TC-09-R

Matter: San Diego Regional Water Quality Control Board Order No. R9-2007-0001 Permit CAS0108758 Parts D.1.d.(7)-(8), D.1.g., D.3.a.(3), D.3.a.(5), D.5, E.2.f, E.2.g, F.1, F.2, F.3, I.1, I.2, I.5, J.3.a.(3)(c)iv-viii & x-xv, and L.

Claimants: City of Carlsbad
City of Chula Vista
City of Del Mar
City of Encinitas
City of Escondido
City of Imperial Beach
City of La Mesa
City of Lemon Grove
City of National City
City of Oceanside
City of Poway
City of San Diego
City of San Marcos
City of Santee
City of Solana Beach
City of Vista

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

Adaoha Agu, *County of San Diego Auditor & Controller Department*
Projects, Revenue and Grants Accounting, 5530 Overland Avenue, Ste. 410 ,
MS:O-53, San Diego, CA 92123
Phone: (858) 694-2129
Adaoha.Agu@sdcounty.ca.gov

Tiffany Allen, Treasury Manager, *City of Chula Vista*
Claimant Contact

Finance Department, 276 Fourth Avenue, Chula Vista, CA 91910
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