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dburhenn@burhennigest.com

November 10, 2011

Via CSM Dropbox

Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Re: Joint test Claim of Riverside County Local Agencies Concerning
California Regional Water Quality Control Board, San Diego Region,
Order No. R9-2010-0016

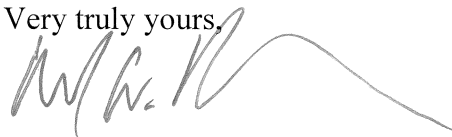
To the Commission:

This firm represents the Riverside County Flood Control & Water Conservation District, the County of Riverside and the Cities of Murrieta, Temecula and Wildomar (collectively, "Claimants") with respect to the enclosed Joint Test Claim concerning California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016 ("Order"). The Claimants are Copermittees under this Order and have filed a Joint Test Claim because the state mandates that are the subject of this Test Claim apply near identically to all of the Claimants.

Enclosed are the Test Claim Forms of the Claimants (Sections 1-4), a Narrative Statement (Section 5), supporting Declarations (Section 6) and Documentation (Section 7). The Documentation includes a copy of the Order as well as the 2004 order that it superseded, as well as other relevant documents.

Thank you for your consideration of this matter. We anticipate supplementing Section 6 with at least one additional declaration shortly. As noted in the Test Claim forms, communications regarding this Test Claim should be directed to my attention.

Very truly yours,



David W. Burhenn

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WRITER'S DIRECT NUMBER
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WRITER'S E-MAIL ADDRESS
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April 28, 2017

VIA DROPBOX

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

Re: San Diego Region Water Permit – Riverside County, 11-TC-03
Response of Joint Test Claimants to Notice of Incomplete Joint
Test Claim Filing

Dear Ms. Halsey:

I have been designated as Claimant Representative by all test claimants in the above-referenced Joint Test Claim and am therefore responding on behalf of the Riverside County Flood Control and Water Conservation District (“District”), the County of Riverside (“County”) and the Cities of Murrieta, Temecula and Wildomar (collectively, the “Joint Test Claimants”) to the Notice of Incomplete Joint Test Claim Filing dated March 8, 2017 (“Notice Letter”), which stated that the original joint test claim filing was incomplete on two grounds.

The Joint Test Claimants were originally informed that their test claim was deemed complete as of November 18, 2011. The Notice Letter required the Joint Test Claimants to undertake significant efforts, including locating old financial records and preparing new declarations, test claim forms and revisions to the Narrative Statement. The Joint Test Claimants thus incurred significant, unforeseeable costs to address the issues raised in the Notice Letter or risk having the test claim rejected for the reasons stated therein. The Joint Test Claimants respectfully disagree as to the basis for the Notice Letter on grounds of law and equity, and reserve their right to contest the alleged deficiencies identified in the Notice Letter before the Commission on State Mandates.

Notwithstanding such reservation, and subject to it, the Joint Test Claimants submit with this letter the following new or revised documents:

Ms. Heather Halsey

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April 28, 2017

- (a) New Test Claim Forms;
- (b) Revised Section 5 Narrative Statement; and
- (c) New Section 6 Declarations.

As requested in the Notice Letter, the Joint Test Claimants are not re-attaching any supporting documentation.

The Notice Letter indicated that to cure the alleged deficiencies in the original test claim, the Joint Test Claimants were to provide:

1. "A revised test claim form from each co-claimant."
2. "Revised written narratives and declarations that provide a detailed description of the costs that are modified by the alleged mandate including the *actual* increased costs incurred by each co-claimant during the fiscal year for which the joint test claim was filed as well as the actual or estimated annual costs that will be incurred by each co-claimant to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the joint test claim was filed. In addition, please provide the statewide cost estimate (in this case the "statewide cost" is the cost for all of the local agency co-permittees, whether named or not, for the alleged new program or higher level of service imposed by the permit at issue) for increased costs to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the join test claim was filed."

Notice Letter, pp. 3-4, emphasis in original.

In response to item 1, and notwithstanding the addition in 2014 of 2 CCR § 1183.1(b), which necessitated designation of one claimant representative for joint test claimants, the Joint Test Claimants herewith file new test claim forms signed in Section 8 by the General Manager-Chief Engineer for the District, the Auditor-Controller for the County and the City Managers for the Cities of Murrieta, Temecula and Wildomar. The names, addresses and contact information for these individuals are set forth in Section 2 of the forms. Additionally, as noted above, I am designated as the Claimant Representative for all Joint Test Claimants in Section 3.

In response to item 2, both the Declarations and the Section 5 Narrative Statement (in revised sections following the description of each mandated activity) set forth actual increased costs incurred in the relevant fiscal years covered by the Joint Test Claim. Also, the Joint Test Claimants' best estimate of total statewide costs associated with the Joint Test Claim are set forth in Section VII of the Narrative Statement and are supported by the Declarations. New Sections I.A-C of the Narrative Statement sets forth various jurisdictional matters.

Ms. Heather Halsey

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Neither the Department of Finance nor the Water Boards have yet commented to the Joint Test Claim. In light of that fact, and because the Joint Test Claimants wish to avoid further delays in consideration of the claim, we have included in the Narrative Statement a discussion of *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749. As you know, the Commission previously has requested special briefing on this important case. We have also updated other sections to reflect developments occurring since the Joint Test Claim was filed in 2011, to avoid having to correct the record at a later time.

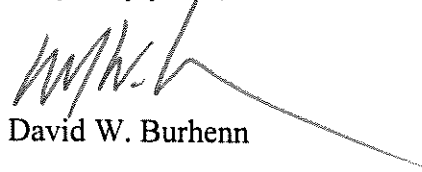
In addition, item VI.M in the original Narrative Statement concerned the potential for increased costs to arise from the triggering of Section A.3 of Order No. R9-2010-0016. We have determined that no such costs were in fact incurred by the Joint Test Claimants during the term of the order and have accordingly removed this item from the Narrative Statement and the declarations.

The Joint Test Claimants wish to thank you for your courtesy in extending the deadline for the submission of this response. While the Joint Test Claimants are responding by the April 28 deadline, we respectfully submit that this deadline is not jurisdictional, both because the regulatory authority cited in the Notice Letter applies only to the initial determination of test claim completeness and because the Executive Director has discretion to extend the 30-day time period within which to cure a returned test claim and still allow the test claimant to preserve the original claim filing date.

Nevertheless, we believe that the information and evidence submitted herewith fully address the issues identified in the Notice Letter. If there are any further concerns or issues regarding these matters, please contact the undersigned or, if I am not available, my partner, Howard Gest, who may be reached at 213-629-8787 and hgest@burhennigest.com.

Thank you for your consideration of these matters.

Very truly yours,



David W. Burhenn

DB:dwb

1. TEST CLAIM TITLE

San Diego Region Stormwater Permit –
County of Riverside, 11-TC-03

2. CLAIMANT INFORMATION

Riverside Co. Flood Control and Water Conservation District

Name of Local Agency or School District

Jason Uhley, PE

Claimant Contact

General Manager-Chief Engineer

Title

1995 Market Street

Street Address

Riverside, CA 92501

City, State, Zip

951-955-1201

Telephone Number

951-788-9965

Fax Number

juhley@rivco.org

E-Mail Address

3. CLAIMANT REPRESENTATIVE INFORMATION

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

David W. Burhenn

Claimant Representative Name

Partner

Title

Burhenn & Gest LLP

Organization

624 S. Grand Avenue, Suite 2200

Street Address

Los Angeles, CA 90017

City, State, Zip

213-629-8788

Telephone Number

213-624-1376

Fax Number

dburhenn@burhenngest.com

E-Mail Address

For CSM Use Only

Filing Date:

RECEIVED
November 10, 2011
Commission on
State Mandates

Revised April 28, 2017

Test Claim #: 11-TC-03

4. TEST CLAIM STATUTES OR EXECUTIVE ORDERS CITED

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016

Copies of all statutes and executive orders cited are attached.

Sections 5, 6, and 7 are attached as follows:

5. Written Narrative: pages _____ to _____.

6. Declarations: pages _____ to _____.

7. Documentation: pages _____ to _____.

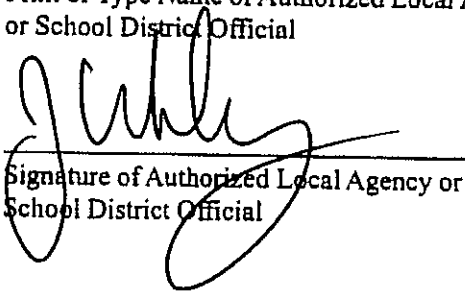
8. CLAIM CERTIFICATION

*Read, sign, and date this section and insert at the end of the test claim submission. **

This test claim alleges the existence of a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim submission is true and complete to the best of my own knowledge or information or belief.

Jason Uhley, P.E.

Print or Type Name of Authorized Local Agency
or School District Official



Signature of Authorized Local Agency or
School District Official

General Manager-Chief Engineer

Print or Type Title

April 24 2017

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

San Diego Region Water Permit - County of
Riverside, 11-TC-03

County of Riverside

Name of Local Agency or School District

Paul Angulo, CPA

Claimant Contact

Auditor-Controller

Title

4080 Lemon Street, 11th Floor

Street Address

Riverside, CA 92502

City, State, Zip

951-955-3800

Telephone Number

951-955-3802

Fax Number

pangulo@rivco.org or jmarcy@rivco.org

E-Mail Address

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

David W. Burhenn

Claimant Representative Name

Partner

Title

Burhenn & Gest LLP

Organization

624 S. Grand Avenue, Suite 2200

Street Address

Los Angeles, CA 90017

City, State, Zip

213-629-8788

Telephone Number

213-624-1376

Fax Number

dburhenn@burhenngest.com

E-Mail Address

For CSM Use Only

Filing Date:

RECEIVED

November 10, 2011

Commission on
State Mandates

Revised April 28, 2017

Test Claim #:

11-TC-03

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016

Copies of all statutes and executive orders cited are attached.

Sections 5, 6, and 7 are attached as follows:

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*Read, sign, and date this section and insert at the end of the test claim submission.**

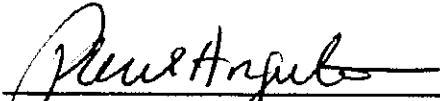
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Paul Angulo, CPA

Print or Type Name of Authorized Local Agency
or School District Official

Auditor-Controller

Print or Type Title



Signature of Authorized Local Agency or
School District Official

April 21, 2017

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

[REDACTED]

San Diego Region Stormwater Permit –
County of Riverside 11-TC-03

[REDACTED]

City of Murrieta

Name of Local Agency or School District

Rick Dudley

Claimant Contact

City Manager

Title

1 Town Square

Street Address

Murrieta, CA 92562

City, State, Zip

951-461-6010

Telephone Number

951-698-9885

Fax Number

rdudley@murrietaCA.gov

E-Mail Address

[REDACTED]

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

David W. Burhenn

Claimant Representative Name

Partner

Title

Burhenn & Gest LLP

Organization

624 S. Grand Ave., Suite 2200

Street Address

Los Angeles, CA 90017

City, State, Zip

213-629-8788

Telephone Number

213-624-1376

Fax Number

dburhenn@burhennigest.com

E-Mail Address

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Filing Date:	RECEIVED November 10, 2011 Commission on State Mandates
Revised April 28, 2017	
Test Claim #:	11-TC-03

[REDACTED]

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016

Copies of all statutes and executive orders cited are attached.

Sections 5, 6, and 7 are attached as follows:
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6. Declarations: pages ____ to ____.
7. Documentation: pages ____ to ____.

CLAIM CERTIFICATION

*Read, sign, and date this section and insert at the end of the test claim submission. **

This test claim alleges the existence of a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim submission is true and complete to the best of my own knowledge or information or belief.

Rick Dudley

Print or Type Name of Authorized Local Agency
or School District Official

City Manager

Print or Type Title



Signature of Authorized Local Agency or
School District Official

April 28, 2017

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

1. TEST CLAIM TITLE

San Diego Region Stormwater Permit --
County of Riverside 11-TC-03

2. CLAIMANT INFORMATION

City of Temecula

Name of Local Agency or School District

Aaron Adams

Claimant Contact

City Manager

Title

41000 Main Street

Street Address

Temecula, CA 92590

City, State, Zip

951-506-5100

Telephone Number

951-694-6499

Fax Number

aaron.adams@temecula.gov

E-Mail Address

3. CLAIMANT REPRESENTATIVE INFORMATION

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

David W. Burhenn

Claimant Representative Name

Partner

Title

Burhenn & Gest LLP

Organization

624 S. Grand Ave., Suite 2200

Street Address

Los Angeles, CA 90017

City, State, Zip

213-629-8788

Telephone Number

213-624-1376

Fax Number

dburhenn@burhennigest.com

E-Mail Address

For CSM Use Only

Filing Date:

RECEIVED

November 10, 2011
Commission on
State Mandates

Revised April 28, 2017

Test Claim #: 11-TC-03

4. TEST CLAIM STATUTES OR EXECUTIVE ORDERS CITED

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016

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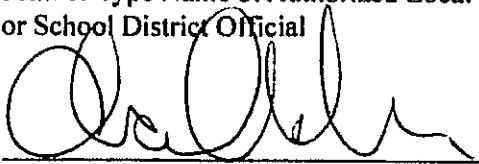
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*Read, sign, and date this section and insert at the end of the test claim submission. **

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Aaron Adams

Print or Type Name of Authorized Local Agency
or School District Official



Signature of Authorized Local Agency or
School District Official

City Manager

Print or Type Title

April 25, 2017

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

1. TEST CLAIM TITLE

San Diego Regional Stormwater Permit -
County of Riverside, 11-TC-03

2. CLAIMANT INFORMATION

City of Wildomar

Name of Local Agency or School District

Gary Nordquist

Claimant Contact

City Manager

Title

23873 Clinton Keith Rd., Suite 201

Street Address

Wildomar, CA 92595

City, State, Zip

(951) 677-7751

Telephone Number

(951) 698-1463

Fax Number

gnordquist@cityofwildomar.org

E-Mail Address

3. CLAIMANT REPRESENTATIVE INFORMATION

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

David W. Burhenn

Claimant Representative Name

Partner

Title

Burhenn & Gest LLP

Organization

624 S. Grand Ave., Suite 2200

Street Address

Los Angeles, CA 90017

City, State, Zip

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Telephone Number

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Fax Number

dburhenn@burhenngest.com

E-Mail Address

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Revised April 28, 2017

Test Claim #:

11-TC-03

4. TEST CLAIM STATUTES OR EXECUTIVE ORDERS CITED

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016

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Sections 5, 6, and 7 are attached as follows:

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6. Declarations: pages ____ to ____.

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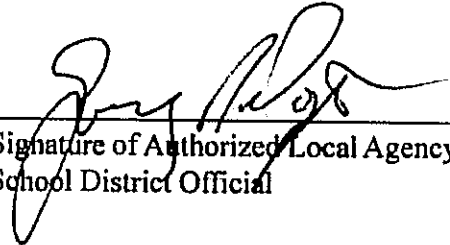
This test claim alleges the existence of a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim submission is true and complete to the best of my own knowledge or information or belief.

Gary Nordquist

Print or Type Name of Authorized Local Agency
or School District Official

City Manager

Print or Type Title


Signature of Authorized Local Agency or
School District Official

April 26, 2017

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

Section 5: Narrative Statement In Support of Joint Test Claims of Riverside County Local Agencies
Concerning San Diego RWQCB Order No. R9-2010-0016 (NPDES No. CAS 0108766), San Diego
Region Stormwater Permit – County of Riverside, 11-TC-03

Section 5

NARRATIVE STATEMENT

In Support of Joint Test Claims of Riverside County
Copermittees Concerning San Diego RWQCB Order No. R9-
2010-0016 (NPDES No. CAS 0108766), San Diego Region
Stormwater Permit – County of Riverside, 11-TC-03

Section 5: Narrative Statement In Support of Joint Test Claims of Riverside County Local Agencies
Concerning San Diego RWQCB Order No. R9-2010-0016 (NPDES No. CAS 0108766), San Diego
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Region Stormwater Permit – County of Riverside, 11-TC-03

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 Region Stormwater Permit – County of Riverside, 11-TC-03

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Section 5: Narrative Statement In Support of Joint Test Claims of Riverside County Local Agencies
 Concerning San Diego RWQCB Order No. R9-2010-0016 (NPDES No. CAS 0108766), San Diego
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NARRATIVE STATEMENT IN SUPPORT OF JOINT TEST CLAIMS

I. INTRODUCTION

On November 10, 2010, the California Regional Water Quality Control Board, San Diego Region (“RWQCB”), adopted a new storm water permit, Order No. R9-2010-0016 (NPDES No. CAS 0108766) (“the 2010 Permit”), regulating discharges from the municipal separate storm sewer systems (“MS4s”) operated by a number of municipal entities in the Santa Margarita region of Riverside County, hereinafter referred to as “Copermittees.”¹

The 2010 Permit included numerous new requirements that exceed the requirements of federal law and were not included in the previous MS4 permit issued by the RWQCB, Order No. R9-2004-001 (“the 2004 Permit”).² These new requirements represent unfunded State mandates for which the 2010 Permit permittees, which are the claimants herein, the Riverside County Flood Control and Water Conservation District (“District”), the County of Riverside (“County”), and the Cities of Murrieta, Temecula and Wildomar (collectively, “Claimants”) are entitled to reimbursement under article XIII B section 6 of the California Constitution.

This Section 5 of the Test Claim identifies the activities that constitute unfunded mandates and sets forth the basis for reimbursement for such activities. The mandates for which Claimants seek a subvention of state funds are described in detail below, but encompass the following:

A. The requirement to address three categories of urban irrigation runoff that formerly were considered exempt non-stormwater discharges, contained in Section B.2;

B. The requirement to monitor for, report and address exceedances of non-stormwater action levels, contained in Sections C and F.4;

C. The requirement to monitor for, report and address exceedances of stormwater action levels, contained in Section D;

D. Requirements relating to the Priority Development Projects, local impact development and hydromodification, contained in Section F.1;

E. Requirements to track the construction and operation of post-construction best management practices (“BMPs”), contained in Section F.1;

F. Requirements relating to the control of pollutants from construction sites, contained in Section F.2;

G. Requirements relating to the development and implementation of BMPs for unpaved roads, contained in Sections F.1.i and F.3.a.10;

¹ Copies of the 2010 Permit plus all attachments and Fact Sheet are included in Section 7, filed herewith.

² A copy of the 2004 Permit is included in Section 7.

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H. Requirements relating the inspection of monitoring of commercial/industrial sources, contained in Section F.3.b;

I. Requirements relating to the retrofitting of existing development, contained in Section F.3.d;

J. Requirements relating to the development and implementation of the Watershed Water Quality Workplan, contained in Section G;

K. Requirements relating to the JRMP Annual Report, contained in Section K.3, and also in Table 5 and in Attachment D;

L. Requirements to perform five special studies, contained in the Monitoring and Reporting Program, Attachment E to the 2010 Permit; and

M. Requirements that programs relating to development, construction, municipal facilities, industrial/commercial facilities, residential areas, retrofitting and education ensure that stormwater runoff not cause or contribute to a violation of a water quality standard and “prevent” illicit discharges into the MS4, contained in Sections F, F.1, F.2, F.3 and F.6.³

A. STATEMENT OF INTEREST OF JOINT TEST CLAIMANTS

This Test Claim is filed by Claimants District, County and the Cities of Murrieta, Temecula and Wildomar. The Claimants are filing this Test Claim jointly and, pursuant to Cal. Code Regs., tit. 2, § 1183.1, subd. (g), attest to the following:

1. The Claimants allege state-mandated costs resulting from the same Executive Order, *i.e.*, the 2010 Permit;

2. The Claimants agree on all issues of the Test Claim; and

3. The Claimants have designated one contact person to act as a resource for information regarding the test claim in Section 3 of their Test Claim forms.

4. All Test Claim forms have been executed, respectively, by the Auditor-Controller (on behalf of the County), the General Manager-Chief Engineer (on behalf of the District) and by City Managers (on behalf of the city Claimants). All such individuals are authorized to sign on behalf of their respective Claimants. Cal. Code Regs., tit. 2, § 1183.1, subd. (a)(5).

³ The previous version of this Narrative Statement included a test claim item concerning Section A.3 of the 2010 Permit. However, no increased costs were incurred by the Claimants from this provision during the term of the 2010 Permit and, thus, it has been omitted from this Narrative Statement and the supporting declarations.

B. STATEMENT OF ACTUAL AND/OR ESTIMATED COSTS EXCEEDING \$1,000

The Claimants further state that, as set forth below and in the attached Section 6 Declarations filed herewith in support, the actual and/or estimated costs from the state mandates set forth in this Test Claim exceed \$1,000 for each of the Claimants. This Narrative Statement sets forth specific and estimated amounts expended by the Claimants as determined from the perusal of pertinent records and as disclosed in the Section 6 Declarations filed herewith. Such amounts reflect, in many cases, costs associated with the development of programs, and not their later implementation by the Claimants. The Claimants respectfully reserve the right to modify such amounts when or if additional information is received and to adduce additional evidence of costs if required in the course of the Test Claim.

C. THE TEST CLAIM WAS TIMELY FILED

The Test Claim was filed on November 10, 2011, within one year after adoption of the Permit. It was thus timely filed. Cal. Code Regs., tit. 2, § 1183.1, subd. (b).

II. BACKGROUND

This Test Claim concerns the choice made by the RWQCB, acting under its authority granted by California law, to impose requirements under the 2010 Permit that go beyond those required by the federal Clean Water Act (“CWA”) and/or which exceed the “maximum extent practicable” (“MEP”) standard applicable to MS4 permits under the CWA.

The RWQCB has authority to exceed the requirements of the CWA because, under both the CWA and the Porter-Cologne Water Quality Act, California Water Code § 13000 et seq., a regional board may impose additional requirements on a permittee covered by a federal National Pollutant Discharge Elimination System (“NPDES”) permit, such as the 2010 Permit. *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal. 4th 613, 619. As the California Supreme Court noted in *City of Burbank*,

The federal Clean Water Act reserves to the states significant aspects of water quality policy (33 U.S.C. § 1251(b)), and it specifically grants the states authority to “enforce any effluent limitation” that is not “*less stringent*” than the federal standard (33 U.S.C. § 1370, italics added).”

City of Burbank, 35 Cal.4th at 627-28.

This Commission previously has found, in two test claims regarding MS4 permits issued by the Los Angeles RWQCB and the San Diego RWQCB, that those regional boards issued permit requirements that exceeded the requirements of federal law and regulation and represented unfunded state mandates. *In re Test Claim on: Los Angeles Regional Quality Control Board Order No. 01-192*, Case Nos.: 03-TC-04, 03-TC-19, 03-TC-20, 03-TC-21 (“LA County Test Claim”); *In re Test Claim on: San Diego Regional Water Quality Control Board Order No. R9-2007-0001*, Case No. 07-TC-09 (“San Diego County Test Claim”).

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The Commission’s reasoning in the LA County Test Claim was reversed by the Los Angeles County Superior Court, which held that the appropriate test for determining the presence of a federal, as opposed to state, mandate was whether the provision at issue exceeded the MEP standard. The California Court of Appeal affirmed that decision. Subsequently, the California Supreme Court, in *Department of Finance v. Commission on State Mandates* (2016) 1 Cal. 5th 749, reversed, finding that the mandates in question were in fact state, not federal, in nature. *Department of Finance* is discussed in Section V.B below.

III. FEDERAL LAW

The 2010 Permit was issued, in part, under the authority of the CWA, 33 U.S.C. § 1251 *et seq.* The CWA authorizes the EPA, or states with an approved water quality program (such as California), to issue NPDES permits for discharges into waters of the United States. 33 U.S.C. § 1342. The CWA was amended in 1987 to include within its regulation of discharges from “point sources” to “waters of the United States” discharges to such waters from MS4s. 33 U.S.C. § 1342(p)(2). The CWA requires that MS4 permits:

- (i) may be issued on a system or jurisdiction-wide basis;
- (ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and
- (iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.

33 U.S.C. § 1342(p)(3)(B).

The 2010 Permit is an example of a “Phase I” permit, which are required for MS4s serving larger urban populations, as is the case with the MS4 systems in the Santa Margarita region of Riverside County. In 1990, EPA issued regulations to implement Phase I of the MS4 permit program. 55 Fed. Reg. 47990 (November 16, 1990). The requirements of those regulations, as they apply to the provisions of the 2010 Permit relevant to this Test Claim, are discussed in further depth below.

IV. CALIFORNIA LAW

The CWA allows delegation of its NPDES permit powers to the states. 33 U.S.C. § 1342(b). Pursuant to that delegation, in 1972, California became the first state authorized to issue NPDES permits through an amendment of the existing Porter-Cologne Water Quality Act. California Water Code § 13370. The Porter-Cologne Act, adopted in 1969, pre-dated the CWA delegation by three years.

The Porter-Cologne Act’s scope is broader than that of the CWA, as it applies not only to navigable surface waters of the United States (the scope of permits issued under the NPDES program) but to any “waters of the state,” including “any surface water or groundwater, including

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saline waters, within the boundaries of the state.” Water Code § 13050(e). The 2010 Permit, in addition to being issued as an NPDES permit under the authority of the CWA, also was issued by the RWQCB as a “waste discharge requirement,” pursuant to the authority of Article 4, Chapter 4, Division 7 of the California Water Code, commencing with California Water Code § 13260. *See also* California Water Code § 13263. Thus, the 2010 Permit may, and does, contain programs both authorized under the federal CWA and the state Porter-Cologne Act.

As discussed above, the California Supreme Court, in *City of Burbank*, has expressly held that a regional board has the authority to issue a permit that exceeds the requirements of the CWA and its accompanying federal regulations. *City of Burbank*, 35 Cal.4th at 618. The State Water Resources Control Board (“SWRCB”), which supervises all regional boards in the state, including the RWQCB, has acknowledged that since NPDES permits are adopted as waste discharge requirements, they can more broadly protect “waters of the State” rather than be limited to “waters of the United States,” which do not include groundwater. *In re Building Industry Assn. of San Diego County and Western States Petroleum Assn.*, State Board Order WQ 2001-15.

V. STATE MANDATE LAW

A. Introduction

Article XIII B, section 6 of the California Constitution requires that the Legislature provide a subvention of funds to reimburse local agencies any time that the Legislature or a state agency “mandates a new program or higher level of service on any local government.” The purpose of section 6 “is to preclude the State from shifting financial responsibility for carrying out governmental functions to local agencies, which are ‘ill equipped’ to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose.” *County of San Diego v. State of California* (1991) 15 Cal.4th 68, 81.

The Legislature implemented section 6 by enacting a comprehensive administrative scheme to establish and pay mandate claims. Govt. Code § 17500 *et seq.*; *Kinlaw v. State of California* (1991) 54 Cal.3d 326, 331, 333 (statute establishes “procedure by which to implement and enforce section 6”).

“Costs mandated by the state” include “any increased costs which a local agency ... is required to incur after July 1, 1980, as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution.” Govt. Code § 17514. Orders issued by any regional board pursuant to the Porter-Cologne Act come within the definition of an “executive order.” *County of Los Angeles v. Comm’n on State Mandates* (2007) 150 Cal.App.4th 898, 920.

Govt. Code § 17556 identifies seven exceptions to reimbursement requirement for state mandated costs. The exceptions are as follows:

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(a) The claim is submitted by a local agency . . . that requested legislative authority for that local agency . . . to implement the program specified in the statute, and that statute imposes costs upon that local agency or school district requesting the legislative authority. . . .

(b) The statute or executive order affirmed for the state a mandate that had been declared existing law or regulation by action of the courts.

(c) The statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation. . . .

(d) The local agency . . . has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service.

(e) The statute, executive order, or an appropriation in a Budget Act or other bill provides for offsetting savings to local agencies . . . that result in no net costs to the local agencies or . . . includes additional revenue that was specifically intended to fund the costs of the state mandate in an amount sufficient to fund the cost of the state mandate.

(f) The statute or executive order imposes duties that are necessary to implement, reasonably within the scope of, or expressly included in, a ballot measure approved by the voters in a statewide or local election.

(g) The statute created a new crime or infraction, eliminated a crime or infraction, or changed the penalty for a crime or infraction, but only for that portion of the statute relating directly to the enforcement of the crime or infraction.

In addition, the program or increased level of service must impose “unique requirements on local government” that “carry out a state policy”. (*County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56; *see also County of Los Angeles, supra*, 150 Cal.App.4th at 907.)

None of these exceptions would bar reimbursement for the state mandates identified in this Test Claim. First, the exceptions identified in Govt. Code §§ 17556(a), (b), (e), (f) and (g) are not relevant to this Test Claim, and will not be discussed further. The exception identified in Govt. Code § 17556(c), relating to federal mandates, is expected to be raised in potential opposition to the Test Claim and will be discussed further below. Also, as will be demonstrated below, the requirements of the mandates in this Test Claim represent “unique requirements on local government” and not requirements that fall equally upon local governments and private parties, so as to obviate the need for a subvention of state funds under Article XIII B, section 6.

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In particular, when a new program or level of service is in part federally required, California courts have held that where the state-mandated activities exceed federal requirements, those mandates constitute a reimbursable state mandate. *Long Beach Unified School Dist. v State of California* (1990) 225 Cal.App.3d 155, 172-73. Moreover, a “new program or higher level of service” imposed by the State upon a local agency as a result of a federal law or federal program is not necessarily a “federal mandate.” In order to be a federal mandate, the obligation must be imposed upon the local agency by federal law itself. The test for determining whether the “new program or higher level of service” is a state mandate is whether the state has a “true choice” in the matter of implementation, *i.e.*, whether the state freely chose to impose that program on local municipalities as opposed to performing the obligation itself. *Hayes v. Comm’n on State Mandates* (1992) 11 Cal.App.4th 1564, 1593-94.

With respect to the provisions of Govt. Code § 17556(d), concerning the ability of a local agency to impose fees to recoup the cost of a state mandated program, with the passage of Proposition 26 in November 2010, it is clear that the costs associated with developing and implementing many programs called for in the 2010 Permit are not recoverable through fees. The impact of Proposition 26 on MS4 compliance efforts already is being seen. For example, in the City of Poway, an existing stormwater fee developed and used by that municipality to fund MS4 permit compliance programs was overturned and has been abandoned due to the passage of Proposition 26. See online news article, attached in Section 7. Proposition 26, enacted by the voters to amend Article XIII C of the California Constitution, defined virtually any revenue device enacted by a local government as a tax requiring voter approval, unless it fell within certain enumerated exceptions.

Article XIII C, section 2(d) provides that:

No local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote. A special tax shall not be deemed to have been increased if it is imposed at a rate not higher than the maximum rate so approved.

Article XIII C, section 1(d) defines “special tax” as

... any tax imposed for specific purposes, including a tax imposed for specific purposes, which is placed into a general fund

Article XIII C, section 1(e) defines a “tax” as

... any levy, charge, or exaction of any kind imposed by a local government, except the following:

- (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.

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- (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
- (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
- (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
- (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
- (6) A charge imposed as a condition of property development.
- (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

The local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.

In order not to be characterized as a tax subject to voter approval, a fee must fall within the express exemptions authorized by Article XIII C, section 1(e). The fee must be such that it recovers no more than the amount necessary to recover costs of the governmental program being funded by the fee. Further, the person or business being charged the fee, the payor, may only be charged a fee based on the portion of the total government costs attributable to burdens being placed on the government by *that payor* or an amount based on the *direct benefits* the payor receives from the program or facility being funded by the fee.

A fee or charge that does not fall within the seven exceptions listed in Article XIII C, section 1(e) is automatically deemed a tax, which must be approved by the voters. Any fee that does not fall within one of the one of the exceptions listed in Article XIII C, section 1(e) and that is imposed for a specific purpose, such as funding all or part of a program designed to comply with a municipality's obligation under an MS4 Permit, would constitute a "special tax." Article XIII A, section 4 and Article XIII C, section 2(d) would thus require it to be approved by 2/3 of the voters of the portion of the jurisdiction subject to the fee.

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The 2010 Permit imposed new requirements establishing new and higher levels of service on the permittees thereunder, including the Claimants, and that were unique to the permittees' function as local government entities. As will be clear from a review of the mandated activities set forth below, all of the requirements relate to the Claimants' role as local governmental agencies. The provisions of the 2010 Permit set forth in this Test Claim are state mandates for which Claimants, as the permittees under the 2010 Permit, are entitled to reimbursement pursuant to Article XIII B, section 6 of the California Constitution.

The Commission has sole jurisdiction to determine whether a mandate constitutes a federal mandate pursuant to Govt. Code § 17556(c): "The commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds any one of the following: (c) The statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation." Under the statutory scheme, it is the Commission, and not a regional board, that is exclusively charged with determining whether a "federal mandate" has been created in an MS4 permit. *Department of Finance, supra*, 1 Cal. 5th at 768-69; *County of Los Angeles, supra*, 150 Cal.App.4th at 917-18.

If the issue of what constitutes "MEP" is relevant to this Test Claim, this is an issue, like all others regarding the existence of a federal or state mandate, reserved to the Commission. The Commission has *sole authority* to determine what constitutes a state mandate, and if that determination requires the Commission to determine that a particular requirement effectuates, or goes beyond, the MEP standard, the Commission cannot defer to the RWQCB's assertion of what constitutes MEP, but must instead make that determination based on the law and the facts before it. *Department of Finance*, 1 Cal. 5th at 768; *County of Los Angeles*, 150 Cal.App.4th at 917-18.

The Commission of course can refer to the state's interpretation of what constitutes MEP. In that regard, a February 11, 1993 memorandum written by the SWRCB's Office of Chief Counsel regarding the "*Definition of 'Maximum Extent Practicable'*" ("MEP Memo") (attached in Section 7 and excerpted in the Definitions Section of the 2010 Permit, Attachment C), concluded:

On its face, it is possible to discern some outline of the intent of Congress in establishing the MEP standard. First, the requirement is to reduce the discharge of pollutants, rather than totally prohibit such discharge. Presumably, the reason for this standard (and the difference from the more stringent standard applied to industrial dischargers in Section 402(p)(3)(A), **is the knowledge that it is not possible for municipal dischargers to prevent the discharge of all pollutants in storm water.** (MEP Memo, p. 2, bolding added, underlining in original.)

The MEP Memo found that the following factors should be considered in making a determination on whether a BMP is consistent with the "MEP" standard: effectiveness, regulatory compliance, public acceptance, cost (whether the cost of BMPs being considered have a "reasonable relationship" to the pollution control benefit to be achieved) and technical feasibility. MEP Memo, pp. 4-5.

B. In *Department of Finance*, the California Supreme Court Established Definitive Guidance as to How the Commission Must Assess Requirements in MS4 Permits as State or Federal Mandates

Definitive guidance as to what constitutes a state, as opposed to a federal mandate in MS4 permits and the role that the Commission plays in that determination, was provided by the California Supreme Court in *Department of Finance*. In that case, the Court found that the requirements in the Los Angeles County MS4 permit to install trash receptacles at transit stops and to inspect various sites and facilities were state, not federal, mandates.

In determining what constituted a federal versus state mandate, the Supreme Court set forth this test:

If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a “true choice,” that requirement is not federally mandated.

1 Cal. 5th at 765.

Department of Finance involved a challenge to the Commission’s decision in the LA County Test Claim, which found that certain provisions in the LA County MS4 permit constituted state mandates and, concerning a provision requiring the installation and maintenance of trash receptacles at transit stops, required a subvention of state funds. The Commission similarly found, in the San Diego County Test Claim, that a number of provisions in the 2007 San Diego County MS4 permit constituted state mandates. That test claim is presently on appeal with the Court of Appeal, as discussed in Section IX.B below.

Significantly, the process used by the Commission to evaluate these test claims, an examination of federal statutory or regulatory authority for the MS4 permit provisions, at the text of previous permits, at evidence of other stormwater permits issued by the federal government and at evidence from the permit development process, was itself used and validated by the Supreme Court in *Department of Finance*. In affirming the Commission’s decision on the LA County test claims, the Court explicitly rejected the argument which has been repeatedly raised by the State in Test Claim comments and court filings, *i.e.*, that the provisions at issue were simply expressions of the MEP standard required of stormwater permittees in the CWA,⁴ and thus were purely federal mandated requirements, exempt from consideration as state mandates pursuant to Govt. Code § 17756(c).

1. The Supreme Court Applied Existing Mandates Case Law in Reaching Its Decision: The question posed by the Court was this:

⁴ 33 U.S.C. § 1342(p)(3)(B)(iii).

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[H]ow to apply [the federal mandate] exception when federal law requires a local agency to obtain a permit, authorizes the state to issue the permit, and provides the state discretion in determining which conditions are necessary to achieve a general standard established by federal law, and when state law allows the imposition of conditions that exceed the federal standard.

1 Cal. 5th at 763.

Key to the Supreme Court's analysis was its careful application of existing mandate jurisprudence in determining a mandate was federal or state. The Court considered three key cases.⁵ The first was *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, where the Supreme Court found that a state law requiring local governments to participate in the State's unemployment insurance program was in fact compelled by federal law, since the failure to do so would result in the loss of federal subsidies and federal tax credits for California corporations. The Court found that because of the "certain and severe federal penalties" that would accrue, the State was left "*without discretion*" and thus the State "'acted in response to a federal 'mandate.'"" *Department of Finance*, 1 Cal. 5th at 764, quoting *City of Sacramento*, 50 Cal.3d at 74 (emphasis in *Department of Finance*).

The second case was *County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, in which the county alleged that a state requirement to provide indigent criminal defendants with funding for expert witnesses was a state mandate. The court disagreed, finding that because this requirement reflected a binding Supreme Court precedent interpreting the federal Constitution (*Gideon v. Wainwright* (1963) 372 U.S. 335), even absent the state law, the county still would have been bound to fund defense experts. Thus, the legislation "merely codified an existing federal mandate." 1 Cal. 5th at 764.

The Court finally considered *Hayes, supra*, where a state plan adopted under a federal special education law required local school districts to provide disabled children with certain educational opportunities. While the state argued that the plan was federally mandated, the *Hayes* court found that this was merely the "starting point" of its analysis, which was whether the "'manner of implementation of the federal program was left to the *true discretion* of the state.'" *Department of Finance*, 1 Cal. 5th at 765, quoting *Hayes* at 1593 (emphasis added by Supreme Court). *Hayes* concluded that if the State "'freely chose to impose the costs upon the local agency as a means of implementing a federal program then the costs are the result of a reimbursable state mandate regardless whether the costs were imposed upon the state by the federal government.'" 1 Cal. 5th at 765, quoting *Hayes* at 1594.

From these cases, the Supreme Court distilled the "federally compelled" test set forth above, holding that "if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," that requirement is not federally mandated. 1 Cal. 5th at 765. The Court

⁵ Because these are cases involving the scope of the Commission's actions, they are not attached.

also held that it is the State, not the test claimants, which has the burden to show that a challenged permit condition was mandated by federal law. *Id.* at 769.

Thus, the Commission must employ this test, allocating to the State the burden of proof, in its analysis of this Test Claim.

2. The Supreme Court Examined the Nature of CWA Stormwater Permitting and Determined That Water Boards Have Great Discretion in Establishing Permit Requirements: The Court reviewed the interplay between the federal CWA and California law set forth in the Water Code (1 Cal. 5th at 767-69) and determined that with respect to MS4 permits, the State had chosen to administer its own permitting program to implement CWA requirements (*citing* Water Code § 13370(d)). 1 Cal. 5th at 767.

The Court (at 1 Cal. 5th 767-68) found that the State’s permitting authority under the CWA was similar to that in *Division of Occupational Safety & Health v. State Bd. Of Control* (1987) 189 Cal.App.3d 794. There, the State had the choice of being covered by federal occupational safety and health (“OSHA”) requirements or adopting its own OSHA program, which had to meet federal minimums and had to extend its standards to State and local employees. In that case, state OSHA requirements called for three-person firefighting teams instead of the two-person teams that would have been allowed under the federal program. The Court of Appeal found that because the State had freely exercised its option to adopt a state OSHA program, and was not compelled to do so by federal law, the three-person team requirement was a state mandate.

The Supreme Court also distinguished the broad discretion provided to the State under the federal CWA stormwater permitting regulations with the facts in *City of Sacramento, supra*, where the State risked the loss of subsidies and tax credits if it failed to comply with federal law:

Here, the State was not compelled by federal law to impose any particular requirement. Instead, as in *Hayes, supra* . . . the Regional Board has discretion to fashion requirements which it determined would meet the CWA’s maximum extent practicable standard.

1 Cal. 5th at 768 (citation omitted). The Court held that the EPA regulations “gave the Board discretion to determine which specific controls were necessary to meet the [MEP] standard.” *Id.*

3. The Court Rejected the Argument That the Commission Must Defer to the Water Boards’ Determination of What Constitutes a Federal Mandate: The Supreme Court rejected one of the State’s key arguments, that the Commission should have deferred to a regional board’s determination of what in a stormwater permit constitutes a federal, versus state, mandate. 1 Cal. 5th at 768-69.

The Court first addressed the Water Boards’ arguments that the Commission ignored “the flexibility in the CWA’s regulatory scheme, which conferred discretion on the State and regional boards in deciding what conditions were necessary to comply with the CWA” and that the LA County MS4 permit “itself is the best indication of what requirements *would have been imposed* by the EPA if the Regional Board had not done so,” such that the Commission “should have

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deferred to the board’s determination of what conditions federal law required.” 1 Cal. 5th at 768 (emphasis in original).

The Court flatly rejected these arguments, finding that in issuing the permit, “the Regional Board was implementing both state and federal law and was authorized to include conditions more exacting than federal law required. [citation omitted]. It is simply not the case that, because a condition was in the Permit, it was, ipso facto, required by federal law.” *Id.* The Court (at 1 Cal. 5th 768) cited as authority its decision in *City of Burbank, supra*, 35 Cal. 4th at 627-28, where it held that a federal NPDES permit issued by a water board (such as the 2010 Permit) may contain State-imposed conditions that are more stringent than federal law requirements.

The Court next addressed the Water Boards’ argument that the Commission should have deferred to the regional board’s conclusion that the challenged requirements in the LA County MS4 permit were federally mandated. Finding that this determination “is largely a question of law,” the Court distinguished situations where the question involved the regional board’s authority to *impose* specific permit conditions from those involving the question of who would *pay* for such conditions. In the former situation, “the board’s findings regarding what conditions satisfied the federal [MEP] standard would be entitled to deference.” 1 Cal. 5th at 768. But, the Court held,

Reimbursement proceedings before the Commission are different. The question here was not whether the Regional Board had authority to impose the challenged requirements. It did. The narrow question here was who will pay for them. In answering that legal question, the Commission applied California’s constitutional, statutory, and common law to the single issue of reimbursement. In the context of these proceedings, the State has the burden to show the challenged conditions were mandated by federal law.

Id. at 769.

The Court held that “the State must explain why federal law mandated these requirements, rather than forcing the Operators to prove the opposite.” *Id.* In placing that burden on the State, the Court held that because article XIII B, section 6 of the Constitution established a “general rule requiring reimbursement of all state-mandated costs,” a party claiming an exception to that general rule, such as the federal mandate exception in Govt. Code § 17556(c), “bears the burden of demonstrating that it applies.” *Id.* at 769.

The Supreme Court concluded that the State’s proposed rule of “requiring the Commission to defer to the Regional Board” would “leave the Commission with no role to play on the narrow question of who must pay. Such a result would fail to honor the Legislature’s intent in creating the Commission.” *Id.* Looking to the policies underlying article XIII B, section 6, the Court concluded that the Constitution “would be undermined if the Commission were required to defer to the Regional Board on the federal mandate question.” *Id.*

The only circumstance under which the Court found that deference to the Water Boards’ expertise would be appropriate was if a regional board had “found, when imposing the disputed permit conditions, that those conditions were the only means by which the [MEP] standard could

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be implemented.” 1 Cal. 5th at 768. As discussed below, there is no such finding in the 2010 Permit.

The Court noted that the “central purpose” of article XIII B is to rein in local government spending (citing *City of Sacramento*, 50 Cal.3d at 58-59) and that the purpose of section 6 “is to protect local governments from state attempts *to impose or shift the costs* of new programs or increased levels of service by entitling local governments to reimbursement” (citing *County of San Diego v. State of California* (1997) 15 Cal. 4th 68, 81), 1 Cal. 5th at 769, emphasis supplied). Requiring the State to establish that a permit requirement is federally mandated, the Court found, “serves those purposes.” *Id.*

4. Applying Its Test, the Court Upheld the Commission’s Determination that Inspection and Trash Receptacle Requirements In The LA County MS4 Permit Were State Mandates: Applying its “federally compelled” test, the Supreme Court reviewed and upheld the Commission’s determination that the inspection and trash receptacle requirements in the LA County MS4 Permit were in fact state mandates.

First, with respect to the inspection requirements, the test claimants had argued that a requirement in the permit that MS4 operators inspect certain industrial facilities and construction sites was a state mandate. The Commission agreed and the Supreme Court upheld that determination, citing the grounds employed by the Commission.

The Court noted that there was no requirement in the CWA, including the MEP provision, which “expressly required the Operators to inspect these particular facilities or construction sites.” 1 Cal. 5th at 770. While the Act did not mention inspections, the implementing federal regulations required inspections of certain industrial facilities and construction sites (not at issue in the test claim) but did not mention commercial facility inspections “at all.” *Id.* The Court also agreed with the test claimants that state law gave the regional board itself “an overarching mandate” to inspect the facilities and sites. *Id.*

The Court further found that with respect to a requirement to inspect facilities covered by general industrial and general construction stormwater permits, “the State Board had placed responsibility for inspecting facilities and sites on the *Regional Board*” and that in fact the State Board was authorized to charge a fee for permittees, part of which “was earmarked to pay the Regional Board for ‘inspection and regulatory compliance issues.’” *Id.* (emphasis in original). The Court further cited evidence before the Commission that the regional board had offered to pay LA County to inspect industrial facilities, an offer that made no sense “if federal law required the County to inspect those facilities.” *Id.*

The Court, citing *Hayes, supra*, found that since the regional board had primary responsibility for inspecting the facilities and sites, it had “shifted that responsibility to the Operators by imposing these Permit conditions.” 1 Cal. 5th at 771. The Court further rejected the State’s argument that the inspections were federally mandated “because the CWA required the Regional Board to impose permit controls, and the EPA regulations contemplated that some kind of operator inspections would be required.” *Id.* The Court held that the mere fact that federal regulations “contemplated some form of inspections, however, does not mean that federal law

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required *the scope and detail* of inspections required by the Permit conditions.” *Id.* (emphasis supplied).

Second, the Court upheld the Commission’s determination that the requirement to place trash receptacles at transit stops was a state mandate. The Court found, as did the Commission, that while MS4 operators were required to “include a description of practices and procedures in their permit application,” the permitting agency had “discretion whether to make those practices conditions of the permit.” *Id.* As the Commission had previously found, the Court found that the State cited no CWA regulation which required trash receptacles at transit stops, and there was evidence that EPA-issued permits in other cities did not require trash receptacles at transit stops. *Id.* at 772. This latter fact, that “the EPA itself had issued permits in other cities, but did not include the trash receptacle condition,” in the Court’s view, “undermines the argument that the requirement was federally mandated.” *Id.*

The Claimants respectfully submit that *Department of Finance* answers the question of whether the mandates identified in this Test Claim are federal or state in nature. As set forth below, each requirement represents the “true choice” of the RWQCB to impose the conditions at issue and to specify the means of compliance with general federal requirements. In some cases, the requirements are not even linked to federal law or regulation but rather to the RWQCB’s concurrent state law powers under the Porter-Cologne Act. Nowhere in the 2010 Permit is there any RWQCB finding that the specific requirements at issue in this Test Claim were determined to be the only way in which the MEP standard could be achieved. As the Supreme Court held, a regional board cannot simply argue that the imposition of such requirements represents the board’s imposition of the federal MEP standard, thus rendering those requirements as federal.

Under *Department of Finance*, and the other mandate jurisprudence cited above, the requirements in this Test Claim are state, not federal, mandates.

VI. STATE MANDATED ACTIVITIES

A. Removal of Categories of Irrigation Runoff from Non-Prohibited Non-Stormwater Discharges

Section B.2 of the 2010 Permit deleted three categories of irrigation runoff, “landscape irrigation,” irrigation water” and “lawn watering,” from categories of non-stormwater discharges not prohibited by the 2010 Permit, a new requirement that exceeded the plain requirements of federal regulations governing such discharges and representing a choice by the RWQCB to impose such requirements.

1. Applicable Requirements in the 2010 Permit

Section B.2

The 2010 Permit, in Section B.2, identified the following categories of non-stormwater discharges as exempt from the requirement to prohibit their entry into Claimants’ MS4s:

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- a. Diverted stream flows;
- b. Rising ground waters;
- c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
- d. Uncontaminated pumped ground water;
- e. Foundation drains;
- f. Springs;
- g. Water from crawl space pumps;
- h. Footing drains;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing;
- l. Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks;
- m. Individual residential car washing; and
- n. Dechlorinated swimming pool discharges.

[All footnotes omitted]

The 2004 Permit (in Section B.2) included “landscape irrigation, “irrigation water” and “lawn watering” among the exempted non-stormwater discharges. The 2010 Permit removed three categories, meaning that Claimants were required to develop and implement new programs to prohibit all discharges entering the MS4 from “landscape irrigation,” irrigation water” and “lawn watering.”

2. Requirements of Federal Law

The RWQCB provided no legal justification or authority for requiring Claimants to impose such an outright prohibition on irrigation waters, other than to cite alleged authority under the federal CWA regulations, in 40 CFR § 122.26(d)(2)(iv)(B). As discussed below, such regulation does not provide authority for the prohibition. Thus, the removal of these three categories of irrigation water discharges from the list of exempted discharges is not required anywhere by federal law.

The cited regulation, 40 CFR § 122.26(d)(2)(iv)(B)(1), provides that “the following categories of non-storm water discharges or flows shall be *addressed* where such discharges are identified by the *municipality* as sources of pollutants to waters of the United States: . . . landscape irrigation . . . irrigation water . . . [and] lawn watering.” (emphasis added). This regulation thus provides that a municipality must “*address*” such categories of non-storm water discharges, but not that it must “prohibit” all such discharges regardless of the quality or quantity of the irrigation water. Further evidence of the fact that federal law does not require an outright prohibition of all such waters from entering the MS4 comes from the text of the 2004 Permit, which did not require that such discharges be “prohibited,” and there has been no subsequent change in the CWA or federal regulations in this regard since then. *See* 2004 Permit, Section B.2.

Moreover, 40 CFR § 122.26(d)(2)(iv)(B)(1) only requires the addressing of such discharges where the *municipality* first identifies these discharges as specific sources of pollutants.

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While the 2010 Permit Fact Sheet states that educational outreach materials utilized by the Copermittees identified these categories of runoff as a source and conveyance of pollutants to the MS4 (Fact Sheet, pp. 108-09), those materials were prepared as a preventative measure, to educate the public and prevent these discharges from becoming problematic, and did not represent a determination by Claimants that those discharges were a demonstrated problem within the watershed. In comments to the RWQCB during the development of the 2010 Permit, Claimants in fact stated that none of the municipalities had identified irrigation runoff as a source of pollutants requiring prohibition.⁶ (See District Comment Letter dated September 7, 2010 and Attachment 6 (included in Section 7)). Thus, in adding this provision, the RWQCB relied on no actual determination of impairment within the jurisdiction of the Claimants.

Also, there is an important distinction between identifying a *particular discharger* as a source of pollutants and identifying *the entire category of discharge* as a source of pollutants. In the preamble to the federal regulations, the U.S. EPA makes clear that the permittees' illicit discharge program need not prevent discharges of the "exempt" categories into the MS4 "unless such discharges are specifically identified on a case-by-case basis as needing to be addressed." 55 Fed. Reg. at 47995. In other words, individual discharges within exempt categories must be addressed when the particular discharge is a source of pollutants to waters of the U.S. The federal regulations do not allow for removing entire categories of exempt non-storm water discharges. EPA confirmed this case-by-case approach in its Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems (November 1992) ("Part 2 Guidance Manual"), where it states:

If an applicant knows . . . that landscape *irrigation water from a particular site* flows through and picks up pesticides or excess nutrients from fertilizer applications, there may be a reasonable potential for a storm water discharge to result in a water quality impact. In such an event, the applicant should contact the NPDES permitting authority to request that the authority order *the discharger* to the MS4 to obtain a separate NPDES permit (or in this case, the discharge could be controlled through the storm water management program of the MS4.)

Part 2 Guidance Manual at 6-33 (emphasis supplied) (attached in Section 7).

As evidenced by the Guidance Manual, the removal of these three irrigation water discharge categories from the list of exempted discharges is not required by federal law. Even if the Copermittees were to have identified a specific category or subcategory of non-storm water discharges as a potential source of pollutants in any particular instance (which has not happened), this does not mean that the RWQCB is required under federal law to prohibit that entire category of non-storm water discharges throughout all of the Copermittees' jurisdictions (as has been done in the 2010 Permit).

⁶ The Fact Sheet also cites other support for the elimination of the exemption for irrigation water runoff, but this "evidence" relates to findings for other municipalities, or generally for the state, and not for the Copermittees. See Fact Sheet, pp. 109-10.

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Also, not only does federal law not require that the discharge of all irrigation waters be “prohibited” (*i.e.*, it only requires them to be “addressed”), it further does not require that “all” types of “sources” of irrigation water be “addressed” in the event that one or more types or subtypes of irrigation water, under certain conditions, are determined by that municipality to be sources of pollutants. Finally, removing all landscape irrigation, irrigation water and lawn watering discharges from the list of exempted discharges, *i.e.*, in effect, requiring that no amount of irrigation runoff from any source (including from residences) enters the MS4, is not only not required by federal law, it is also impracticable. The “MS4” is defined to include street systems and associated gutters (*see* 2010 Permit, Attachment C, definition of “MS4”). Furthermore, such irrigation runoff that may flow into such gutters may not be significant enough to ever be discharged from the MS4 into receiving waters or contain pollutants in violation of any water quality standard. However such a prohibition requires the Claimants to prohibit that discharge regardless, and potentially conduct enforcement for every such de-minimis discharge. Irrigation runoff, such as that from lawns, invariably will flow into such gutters. Thus, it was not practicable for the Claimants to “effectively prohibit” such discharges from entering the MS4, given the potentially enormous task involved. By requiring such prohibition, the RWQCB exceeded the requirements of the CWA (33 U.S.C. § 1342(p)(3)(B)(ii)) and imposing a new non-federal requirement and/or higher level of service, representing a new state mandated program.

The Supreme Court’s decision in *Department of Finance* supports the conclusion that this requirement was not a federal mandate. Here, the RWQCB mandated the removal of the irrigation streams from the list of exempt discharges without reference to the findings of the Claimants and in excess of the requirements of federal regulations. This mandate can be analogized to the trash receptacle requirements in *Department of Finance*, which were imposed on the LA County MS4 permittees without federal authority, beyond a vague requirement to address “practices for operating and maintaining public street, roads and highways.” There, the Court found that the Commission correctly found no federal mandate due to the specific requirement to install and maintain trash receptacle. Here, the specific requirements imposed by the RWQCB also do not represent a federal mandate.

3. Requirements of 2004 Permit

The 2004 Permit included landscape irrigation, irrigation water and lawn watering in its list of exempted non-stormwater discharges. *See* 2004 Permit, Section B.2.

4. Mandated Activities

Section B.2 of the 2010 Permit required Claimants to perform activities that were not required under either federal law or the 2004 Permit. By removing landscape irrigation, irrigation water and lawn watering from the list of exempted non-storm water discharges, the RWQCB required that each Copermittee take steps to “prohibit” all discharges resulting from landscape irrigation, irrigation water and lawn watering of any type or quantity, from entering the Copermittees’ MS4, *e.g.*, from entering the public streets, gutters, or any portion of the storm water conveyance system.

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In response to this requirement, the District, using funding contributed by the Claimants through their Implementation Agreement, updated the Coordinated Monitoring Program (“CMP”) to address the prohibition of the irrigation flows, which included procedures for response, and monitoring and analysis relating to such flows. Other program updates included revisions to the Jurisdictional Runoff Management Plan (“JRMP”) template, training program and community outreach program. Claimants also incurred additional direct costs implementing these requirements. *See* Section 6 Declarations of the Claimants, Paragraph 5(a).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(a), Claimants incurred increased costs of \$98,302.20 during Fiscal Year (“FY”) 2010-11 and increased costs of \$92,373.97 in FY 2011-12 to address these mandated requirements.

B. Requirement to Meet Non-Stormwater Action Levels or “NALs”

Sections C and portions of F.4 of the 2010 Permit (as well as the provisions of Section II.C of the Permit’s Monitoring and Reporting Program (“MRP”), Attachment E) required Claimants to comply with new requirements relating to “Non-Stormwater Dry Weather Action Levels” or “NALs.” These requirements included programmatic investigation, monitoring and reporting requirements, as well as action items stemming from a NAL exceedance.

1. Applicable Requirements in the 2010 Permit

Section C

NON-STORM WATER DRY WEATHER ACTION LEVELS

1. Each Copermittee, beginning no later than July 1, 2012, must implement the nonstormwater dry weather action level (NAL) monitoring as described in Attachment E of this Order.

2. In response to an exceedance of an NAL, the Copermittee(s) having jurisdiction must investigate and seek to identify the source of the exceedance in a timely manner. However, if any Copermittee identifies a number of NAL exceedances that prevents it from adequately conducting source investigations at all sites in a timely manner, then that Copermittee may submit a prioritization plan and timeline that identifies the timeframe and planned actions to investigate and report its findings on all of the exceedances. Depending on the source of the pollutant exceedance, the Copermittee(s) having jurisdiction must take action as follows:

a. If the Copermittee identifies the source of the exceedance as natural (nonanthropogenically influenced) in origin and in conveyance into the MS4; then the Copermittee must report its findings and documentation of its source investigation to the San Diego Water Board in its Annual Report.

b. If the Copermittee identifies the source of the exceedance as an illicit discharge or connection, then the Copermittee must eliminate the discharge to its MS4 pursuant to Section F.4.f and report the findings, including any enforcement

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action(s) taken, and documentation of the source investigation to the San Diego Water Board in the Annual Report. If the Copermittee is unable to eliminate the source of discharge prior to the Annual Report submittal, then the Copermittee must submit, as part of its Annual Report, its plan and timeframe to eliminate the source of the exceedance. Those dischargers seeking to continue such a discharge must become subject to a separate NPDES permit prior to continuing any such discharge.

c. If the Copermittee identifies the source of the exceedance as an exempted category of non-storm water discharge, then the Copermittees must determine if this is an isolated circumstance or if the category of discharges must be addressed through the prevention or prohibition of that category of discharge as an illicit discharge. The Copermittee must submit its findings including a description of the steps taken to address the discharge and the category of discharge, to the San Diego Water Board for review in its Annual Report. Such description must include relevant updates to or new ordinances, orders, or other legal means of addressing the category of discharge, and the anticipated schedule for doing so. The Copermittees must also submit a summary of its findings with the Report of Waste Discharge.

d. If the Copermittee identifies the source of the exceedance as a non-storm water discharge in violation or potential violation of an existing separate NPDES permit (e.g. the groundwater dewatering permit), then the Copermittee must report, within three business days, the findings to the San Diego Water Board including all pertinent information regarding the discharger and discharge characteristics.

e. If the Copermittee is unable to identify the source of the exceedance after taking and documenting reasonable steps to do so, then the Copermittee must perform additional focused sampling. If the results of the additional sampling indicate a recurring exceedance of NALs with an unidentified source, then the Copermittee must update its programs within a year to address the common contributing sources that may be causing such an exceedance. The Copermittee's annual report must include these updates to its programs including, where applicable, updates to their watershed workplans (Section G.2), retrofitting consideration (Section F.3.d) and program effectiveness work plans (Section J.4).

f. The Copermittees, or any interested party, may evaluate existing NALs and propose revised NALs for future Board consideration.

3. NALs can help provide an assessment of the effectiveness of the prohibition of nonstormwater discharges and of the appropriateness of exempted non-storm water discharges. An exceedance of an NAL does not alone constitute a violation of the provisions of this Order. An exceedance of an NAL may indicate a lack of compliance with the requirement that Copermittees effectively prohibit all types of unauthorized non-storm water discharges into the MS4 or other prohibitions set forth in Sections A and B of this Order. Failure to timely implement required actions specified in this Order following an exceedance of an NAL constitutes a violation of this Order. Neither the absence of exceedances of NALs nor compliance with required actions following observed exceedances, excuses any non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4s or any non-compliance with the prohibitions in Sections A and B of this Order. During any annual reporting period in which one or

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more exceedances of NALs have been documented the Copermittee must report in response to Section C.2 above, a description of whether and how the observed exceedances did or did not result in a discharge from the MS4 that caused, or threatened to cause or contribute to a condition of pollution, contamination, or nuisance in the receiving waters.

4. Monitoring of effluent will occur at the end-of-pipe prior to discharge into the receiving waters, with a focus on Major Outfalls, as defined in 40 CFR 122.26(B 5-6) and Attachment E of this Order. The Copermittees must develop their monitoring plans to sample a representative percentage of major outfalls and identified stations within each hydrologic subarea. At a minimum, outfalls that exceed any NALs once during any year must be monitored in the subsequent year. Any station that does not exceed an NAL, or only has exceedances that are identified as natural in origin and conveyance into the MS4 pursuant to Section C.2.a, for 3 successive years may be replaced with a different station.

5. Each Copermittee must monitor for the non-storm water dry weather action levels, which are incorporated into this Order as follows:

Action levels for discharges to inland surface waters: [table omitted]

Section F.4

d. DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING

Each Copermittee must conduct dry weather field screening and analytical monitoring of MS4 outfalls and other portions of its MS4 within its jurisdiction to detect illicit discharges and connections in accordance with Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 in Attachment E of this Order.

e. INVESTIGATION / INSPECTION AND FOLLOW-UP

Each Copermittee must implement procedures to investigate and inspect portions of its MS4 that, based on the results of field screening, analytical monitoring, or other appropriate information, indicate a reasonable potential of containing illicit discharges, illicit connections, or other sources of pollutants in non-storm water.

(1) Develop response criteria for data: Each Copermittee must develop, update, and use numeric criteria action levels (or other actions level criteria where appropriate) to determine when follow-up investigations will be performed in response to water quality monitoring. The criteria must include required nonstorm water action levels (see Section C) and a consideration of 303(d)-listed waterbodies and environmentally sensitive areas (ESAs) as defined in Attachment C.

(2) Respond to data: Each Copermittee must investigate portions of the MS4 for which water quality data or conditions indicates a potential illegal discharge or connection.

...

(b) Field screen data: Within two business days of receiving dry weather field

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screening results that exceed action levels, the Copermitttee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.

(c) Analytical data: Within five business days of receiving analytical laboratory results that exceed action levels, the Copermitttee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.

In addition, Claimants also incorporate the text of Section II.C of the MRP, Attachment E of the 2010 Permit.

2. Requirements of Federal Law

No federal statute, regulation, or policy requires that MS4 permits include monitoring, reporting and/or compliance obligations in connection with NALs or any other numeric action levels. In fact, nothing in the CWA nor the regulations thereunder requires the inclusion of numeric NALs in any fashion in an MS4 permit.

The language of the CWA, as well as the relevant authority discussing federal requirements for an MS4 NPDES Permit under the Act, confirm that no numeric limits, whether or not styled as “action levels,” are *required* to be included within an MS4 permit. (*See, e.g., Defenders of Wildlife, supra*, 191 F.3d at 1163 and 1165 [“Industrial discharges must comply strictly with State water-quality standards,” while “Congress chose not to include a similar provision for municipal storm-sewer discharges;” “the *statute unambiguously demonstrates* that Congress did not require municipal storm-sewer dischargers to strictly comply with 33 U.S.C. § 1311(b)(1)(C).”]; *Building Industry Association of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 874 (“*BIA*”) (“With respect to municipal stormwater discharges, Congress clarified that the EPA has the authority to fashion NPDES Permit requirements to meet water quality standards without specific numeric effluent limits and to instead impose ‘controls to reduce the discharge of pollutants to the maximum extent practicable.’”); *Divers’ Environmental Conservation Organization v. State Water Resources Control Board* (2006) 145 Cal.App.4th 246, 256 (“In regulating stormwater permits the EPA has repeatedly expressed a preference for doing so by the way of BMPs, rather than by way of imposing either technology-based or water quality-based numerical limitations.”); State Board Order No. 2000-11, p. 3 (“In prior orders this Board has explained the need for the municipal stormwater programs *and the emphasis on BMPs in lieu of numeric effluent limitations.*”)(emphasis supplied); State Board Order No. 2006-12, p. 17 [“Federal regulations do not require numeric effluent limitations for discharges of stormwater.”]; and State Board Order No. 91-03, pgs. 30-31 (“*We . . . conclude that numeric effluent limitations are not legally required.* Further we have determined that the program of prohibitions, source control measures and ‘best management practices’ set forth in the Permit constitutes effluent limitations as required by law.”)(emphasis supplied).

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While NALs are not traditional “strict” numeric effluent limits, in that an exceedance of a NAL does not automatically constitute a permit “violation,” numeric NALs are similar to strict numeric effluent limits in that they imposed new mandated requirements on Claimants to address exceedances of the NALs. If the Copermitees’ non-stormwater discharges exceeded the NALs, Claimants were thereafter required to implement various measures to comply with the NALs, regardless of the feasibility of complying. Failure to address NAL exceedances, under the 2010 Permit, constituted a permit violation.

In light of these facts, the NAL mandates went beyond what is required to be imposed in an MS4 permit, and was therefore not a federal mandate. Having only general authority in the CWA regulations, the RWQCB made a “true choice” in deciding to impose these specific mandates, *Department of Finance, supra*, 1 Cal. 5th at 765; *Hayes, supra*, 11 Cal.App.4th at 1593, and the NAL requirements constituted a new program and/or higher level of service imposed by the state.

3. Requirements of 2004 Permit

No NAL-related requirements were contained in the 2004 Permit. The inclusion of such requirements in the 2010 Permit represents a new program and/or higher level of service imposed on Claimants.

4. Mandated Activities

Sections C and F.4.d and e, as well as Section II.C of the MRP, required Claimants to identify and perform field verification of major outfalls, perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry weather NALs, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, investigations and enforcement, and where necessary, update Copermitee compliance programs as necessary to address NAL exceedances.

In response to these requirements, the District, with funding contributed by the Claimants through the Implementation Agreement, retained a consultant to develop and finalize a sampling and analysis plan, develop a followup response program and procedures and laboratory coordination, conduct initial required NAL sampling and analysis on behalf of each Claimant and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. The Claimants incurred additional direct costs implementing these requirements. *See* Section 6 Declarations, Paragraph 5(b).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(b), the Claimants incurred increased costs to address the requirements of this mandate of \$44,632.46 in FY 2010-11 and \$46,089.89 in FY 2011-12.

C. Requirement to Meet Stormwater Action Levels or “SALs”

Section D of the 2010 Permit required Claimants to monitor their major MS4 outfalls into receiving waters for the presence of pollutants that exceeded SALs and, if such pollutants were detected, to address the exceedances.

1. Applicable Requirements in the 2010 Permit

Section D

STORM WATER ACTION LEVELS

1. The Copermittees must implement the Wet Weather MS4 Discharge Monitoring as described in Attachment E of this Order, and beginning three years after the Order adoption date, the Copermittees must annually evaluate their data compared to the Stormwater Action Levels (SALs). At each monitoring station, a running average of twenty percent or greater of exceedances of any discharge of storm water from the MS4 to waters of the U.S. that exceed the SALs for each of the pollutants listed in Table 4 (below) requires the Copermittee(s) having jurisdiction to affirmatively augment and implement all necessary storm water controls and measures to reduce the discharge of the associated class of pollutants(s) to the MEP. The Copermittees must utilize the exceedance information when adjusting and executing annual work plans, as required by this Order. Copermittees must take the magnitude, frequency, and number of constituents exceeding the SAL(s), in addition to receiving water quality data and other information, into consideration when prioritizing and reacting to SAL exceedances in an iterative manner. Failure to appropriately consider and react to SAL exceedances in an iterative manner creates a presumption that the Copermittee(s) have not reduced pollutants in storm water discharges to the MEP.

[table omitted]

2. The end-of-pipe assessment points for the determination of SAL compliance are major outfalls, as defined in 40 CFR 122.26(b)(5) and (b)(6) and Attachment E of this Order. The Copermittees must develop their monitoring plans to sample a representative percentage of the major outfalls within each hydrologic subarea. At a minimum, outfalls that exceed SALs must be monitored in the subsequent year. Any station that does not exceed an SAL for 3 successive years may be replaced with a different station. SAL samples must be 24 hour time-weighted composites.

3. The absence of SAL exceedances does not relieve the Copermittees from implementing all other required elements of this Order.

4. This Order does not regulate natural sources and conveyances into the MS4 of constituents listed in Table 5. To be relieved of the requirements to take action as described in D.1 above, the Copermittee must demonstrate that the likely and expected cause of the SAL exceedance is not anthropogenic in nature. This demonstration does not need to be repeated for subsequent exceedances of the same SAL at the same monitoring station.

5. The SALs will be reviewed and updated at the end of every permit cycle. The data collected pursuant to D.2 above and Attachment E can be used to create SALs based upon local data. The

purpose of establishing the SALs is that through the iterative and MEP process, outfall storm water discharges will meet all applicable water quality standards.

2. Requirements of Federal Law

Nothing in the CWA or the regulations thereunder requires the inclusion of SALs within an MS4 permit. In addition, there is no federal requirement that MS4 permits include monitoring, reporting or compliance obligations that are triggered by an exceedance of a SAL.

Contrary to any requirement to include a SAL-related mandate within an MS4 permit, the plain language of the CWA, as well as controlling case authority interpreting the Act, make clear that no form of SALs or any related mandates are required to be included within a municipal NPDES Permit by federal law. *See Defenders of Wildlife, supra*, 191 F.3d 1159, 1163 (“**Industrial discharges must strictly comply with State water-quality standards**” while “**Congress chose not to include a similar provision for municipal storm-sewer discharges.**”) (emphasis supplied); *Divers’ Environmental, supra*, 145 Cal.App.4th at 256 (“In regulating stormwater permits the EPA has repeatedly expressed a preference for doing so by the way of BMPs, rather than by way of imposing either technology-based or water quality-based numerical limitations.”); *BIA, supra*, 124 Cal.App.4th at 874 (“With respect to municipal stormwater discharges, Congress clarified that the EPA has the authority to fashion NPDES Permit requirements to meet water quality standards *without specific numeric effluent limits* and to instead impose ‘controls to reduce the discharge of pollutants to the maximum extent practicable.’”) (emphasis supplied); State Board Order No. 2006-12, p. 17 (“**Federal regulations do not require numeric effluent limitations for discharges of stormwater.**”) (emphasis supplied); and State Board Order No. 91-03, pgs. 30-31 (“*We . . . conclude that numeric effluent limitations are not legally required.* Further we have determined that the program of prohibitions, source control measures and ‘best management practices’ set forth in the Permit constitutes effluent limitations as required by law.”) (emphasis supplied).

Like NALs, SALs are not traditional “strict” numeric effluent limits that result in violations if exceeded, but are nonetheless similar to such limits in that they are new programs imposed on Claimants that are tied to achieving compliance with specific numeric limits. As with the NALs, if discharges from Copermittees’ MS4s exceeded the SALs, Claimants were subject to additional and costly requirements, regardless of the feasibility or practicability of complying with the SALs. In short, all of these new requirements were tied to determining and achieving compliance with a set of numbers, none of which is required under federal law. Thus, like the NAL mandates, the SAL mandates went beyond what is required to be imposed in an MS4 permit, and the RWQCB had a “true choice” in deciding to impose the SAL mandates. *Department of Finance, supra*, 1 Cal. 5th at 765; *Hayes, supra*, 11 Cal.App.4th at 1593.

3. Requirements of 2004 Permit

No SAL-related requirements were in the 2004 Permit. The inclusion of such requirements in the 2010 Permit therefore represented a new program and/or higher level of service imposed on Claimants.

4. Mandated Activities

Section D of the Permit required Claimants to conduct end-of-pipe assessments to determine SAL compliance metrics at major outfalls during wet weather. Claimants were required to identify and perform field verification of major outfalls owned by them, perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, perform analysis and prepare reports on the status and outcome of SAL exceedances, and where necessary, update their compliance programs to address SAL exceedances.

In response to these requirements, the District, with funding contributed by the Claimants through the Implementation Agreement, retained a consultant to develop and finalize a sampling and analysis plan, develop a followup response program and procedures and laboratory coordination, conduct SAL sampling and analysis on behalf of each Claimant, utilize analysis and source identification results in develop annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. The Claimants incurred additional direct costs implementing these requirements. *See* Section 6 Declarations, Paragraph 5(c).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(c), the Claimants incurred increased costs to address the requirements of this mandate of \$24,932.46 in FY 2010-11 and \$26,089.89 in FY 2011-12.

D. Priority Development Project and Hydromodification Requirements

Portions of Section F.1.d and Section F.1.h of the 2010 Permit required Claimants to develop and implement a program to ensure that new development and significant redevelopment, as those terms are defined in the 2010 Permit, comply with strict low impact development (“LID”) and hydromodification prevention requirements, including development and implementation of a Hydromodification Management Plan (“HMP”).

1. Applicable Requirements in the 2010 Permit

Section F.1.d

(1) Definition of Priority Development Project:

Priority Development Projects are:

...

(c) One acre threshold: In addition to the Priority Development Project Categories identified in section F.1.d.(2), Priority Development Projects must also include all other

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post-construction pollutant-generating new Development Projects that result in the disturbance of one acre or more of land by July 1, 2012. [footnote omitted]

(2) Priority Development Project Categories

Where a new Development Project feature, such as a parking lot, falls into a Priority Development Project Category, the entire project footprint is subject to SSMP requirements.

(a) New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site) including commercial, industrial, residential, mixed-use, and public projects. This category includes development projects on public or private land which fall under the planning and building authority of the Copermittees.

...

(4) Low Impact Development BMP Requirements

Each Copermittee must require each Priority Development Project to implement LID BMPs which will collectively minimize directly connected impervious areas, limit loss of existing infiltration capacity, and protect areas that provide important water quality benefits necessary to maintain riparian and aquatic biota, and/or are particularly susceptible to erosion and sediment loss.

(a) The Copermittees must take the following measures to ensure that LID BMPs are implemented at Priority Development Projects:

(i) Each Copermittee must require LID BMPs or make a finding of technical infeasibility for each Priority Development Project in accordance with the LID waiver program in Section F.1.d.(7);

(ii) Each Copermittee must incorporate formalized consideration, such as thorough checklists, ordinances, and/or other means, of LID BMPs into the plan review process for Priority Development Projects; and

(iii) On or before July 1, 2012, each Copermittee must review its local codes, policies, and ordinances and identify barriers therein to implementation of LID BMPs. Following the identification of these barriers to LID implementation, where feasible, the Copermittee must take, by the end of the permit cycle, appropriate actions to remove such barriers. The Copermittees must include this review with the updated JRMP.

(b) The following LID BMPs must be implemented at each Priority Development Project:

...

(iii) Projects with low traffic areas and appropriate soil conditions must

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be constructed with permeable surfaces.

(7) Low Impact Development (LID) BMP Waiver Program

The Copermittees must develop, collectively or individually, a LID waiver program for incorporation into the SSMP, which would allow a Priority Development Project to substitute implementation of all or a portion of required LID BMPs in Section F.1.d(4) with implementation of treatment control BMPs and either 1) on-site mitigation, 2) an off-site mitigation project, and/or 3) other mitigation developed by the Copermittees. The Copermittees must submit the LID waiver program as part of their updated SSMP. At a minimum, the program must meet the requirements below:

(a) Prior to implementation, the LID waiver program must clearly exhibit that it will not allow Priority Development Projects to result in a net impact (after consideration of any mitigation) from pollutant loadings over and above the impact caused by projects meeting the onsite LID retention requirements;

(b) For each Priority Development Project participating, the Copermittee must find that it is technically infeasible to implement LID BMPs that comply with the requirements of Section F.1.(d)(4). The Copermittee(s) must develop criteria to determine the technical feasibility of implementing LID BMPs . Each Priority Development Project participating must demonstrate that LID BMPs were implemented as much as feasible given the site's unique conditions. Technical infeasibility may result from conditions including, but not limited to:

(i) Locations that cannot meet the infiltration and groundwater protection requirements in section F.1.c.(6) for large, centralized infiltration BMPs. Where infiltration is technically infeasible, the project must still examine the feasibility of other onsite LID BMPs;

(ii) Insufficient demand for storm water reuse;

(iii) Smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the LID BMP requirements; and

(iv) Other site, geologic, soil, or implementation constraints identified in the Copermittees updated SSMP document.

Section F.1.h

HYDROMODIFICATION – LIMITATIONS ON INCREASES OF RUNOFF DISCHARGE RATES AND DURATIONS [footnote omitted]

Each Copermittee shall collaborate with the other Copermittees to develop and implement a Hydromodification Management Plan (HMP) to manage increases in runoff discharge rates and durations from all Priority Development Projects. The HMP must be incorporated into the SSMP

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and implemented by each Copermittee so that estimated post-project runoff discharge rates and durations must not exceed pre-development discharge rates and durations. Where the proposed project is located on an already developed site, the pre-project discharge rate and duration must be that of the pre-developed, naturally occurring condition. The draft HMP must be submitted to the San Diego Water Board on or before June 30, 2013. The HMP will be made available for public review and comment and the San Diego Water Board Executive Officer will determine whether to hold a public hearing before the full San Diego Water Board or whether public input will be through written comments to the Executive Officer only.

(1) The HMP must:

(a) Identify a method for assessing susceptibility and geomorphic stability of channel segments which receive runoff discharges from Priority Development Projects. A performance standard must be established that ensures that the geomorphic stability within the channel will not be compromised as a result of receiving runoff discharges from Priority Development Projects.

(b) Identify a range of runoff flows [footnote omitted] based on continuous simulation of the entire rainfall record (or other analytical method proposed by the Copermittees and deemed acceptable by the San Diego Water Board) for which Priority Development Project post-project runoff flow rates and durations must not exceed pre-development (naturally occurring) runoff flow rates and durations by more than 10 percent, where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses. The lower boundary of the range of runoff flows identified must correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks. The identified range of runoff flows may be different for specific watersheds, channels, or channel reaches. In the case of an artificially hardened (concrete lined, rip rap, etc.) channel, the lower boundary of the range of runoff flows identified must correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks of a comparable natural channel (i.e. non-hardened, pre-development).

(c) Identify a method to assess and compensate for the loss of sediment supply to streams due to development. A performance and/or design standard must be created and required to be met by Priority Development Projects to ensure that the loss of sediment supply due to development does not cause or contribute to increased erosion within channel segments downstream of Priority Development Project discharge points.

(d) Designate and require Priority Development Projects to implement control measures so that (1) post-project runoff flow rates and durations do not exceed pre-development (naturally occurring) runoff flow rates and durations by more than 10 percent for the range of runoff flows identified under section F.1.h.(1)(b), where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses; (2) post-project runoff flow rates and durations do not result in channel conditions which do not meet the channel standard developed under section F.1.h.(1)(a) for channel segments downstream of Priority Development Project discharge points; and (3) the design of the project and/or control measures compensate for the loss of sediment supply due to development.

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(e) Include a protocol to evaluate potential hydrograph change impacts to downstream watercourses from Priority Development Projects to meet the range of runoff flows identified under Section F.1.h.(1)(b).

(f) Include other performance criteria (numeric or otherwise) for Priority Development Projects as necessary to prevent runoff from the projects from increasing and/or continuing unnatural rates of erosion of channel beds and banks, silt pollutants generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

(g) Include a review of pertinent literature.

(h) Identify areas within the Santa Margarita Hydrologic Unit for potential opportunities to restore or rehabilitate stream channels with historic hydromodification of receiving waters that are tributary to documented low or very low Index of Biotic Integrity (IBI) scores.

(i) Include a description of how the Copermittees will incorporate the HMP requirements into their local approval processes.

(j) Include criteria on selection and design of management practices and measures (such as detention, retention, and infiltration) to control flow rates and durations and address potential hydromodification impacts.

(k) Include technical information, including references, supporting any standards and criteria proposed.

(l) Include a description of inspections and maintenance to be conducted for management practices and measures to control flow rates and durations and address potential hydromodification impacts.

(m) Include a description of monitoring and other program evaluations to be conducted to assess the effectiveness of implementation of the HMP. Monitoring and other program evaluations must include an evaluation of changes to physical (e.g., cross-section, slope, discharge rate, vegetation, pervious/impervious area) and biological (e.g., habitat quality, benthic flora and fauna, IBI scores) conditions of receiving water channels as areas with Priority Development Projects are constructed (i.e. pre- and postproject), as appropriate.

(n) Include mechanisms for assessing and addressing cumulative impacts of Priority Development Projects within a watershed on channel morphology.

(2) In addition to the control measures that must be implemented by Priority Development Projects per section F.1.h.(1)(d), the HMP must include a suite of management measures that can be used on Priority Development Projects to mitigate hydromodification impacts, protect and restore downstream beneficial uses and prevent or further prevent adverse physical changes to downstream channels. The measures must be based on a prioritized consideration of the following elements in this order:

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- (a) Site design control measures;
- (b) On-site management measures;
- (c) Regional control measures located upstream of receiving waters; and
- (d) In-stream management and control measures.

Where stream channels are adjacent to, or are to be modified as part of a Priority Development Project, management measures must include buffer zones and setbacks. The suite of management measures must also include stream restoration as a viable option to achieve the channel standard in section F.1.h.(1)(a). In-stream controls used as management measures to protect and restore downstream beneficial uses and for preventing or minimizing further adverse physical changes must not include the use of nonnaturally occurring hardscape materials such as concrete, riprap, gabions, etc. to reinforce stream channels.

(3) As part of the HMP, the Copermittees may develop a waiver program that allows a redevelopment Priority Development Project, as defined in Section F.1.d.(1)(b), to implement offsite mitigation measures. A waiver may be granted if onsite management and control measures are technically infeasible to fully achieve post-project runoff flow rates and durations that do not exceed the pre-development (naturally occurring) runoff flow rates and durations.

Redevelopment projects that are granted a waiver under the program must not have post-project runoff flow rates and durations that exceed the pre-project runoff flow rates and durations. The estimated incremental hydromodification impacts from not achieving the pre-development (naturally occurring) runoff flow rates and durations for the project site must be fully mitigated. The offsite mitigation must be within the same stream channel system to which the project discharges. Mitigation projects not within the same stream channel system but within the same hydrologic unit may be approved provided that the project proponent demonstrates that mitigation within the same stream channel is infeasible and that the mitigation project will address similar impacts as expected from the project.

(4) Each individual Copermittee has the discretion to not require Section F.1.h. at Priority Development Projects where the project:

- (a) Discharges storm water runoff into underground storm drains discharging directly to water storage reservoirs and lakes;
- (b) Discharges storm water runoff into conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to water storage reservoirs and lakes; or
- (c) Discharges storm water runoff into other areas identified in the HMP as acceptable to not need to meet the requirements of Section F.1.h by the San Diego Water Board Executive Officer.

(5) HMP Reporting and Implementation

(a) On or before June 30, 2013, the Copermittees must submit to the San Diego Water Board a draft HMP that has been reviewed by the public, including the identification of the appropriate limiting range of flow rates per section F.1.h.(1)(b).

(b) Within 180 days of receiving San Diego Water Board comments on the draft HMP, the Copermittees must submit a final HMP that addressed the San Diego Water Board's comments.

(c) Within 90 days of receiving a determination of adequacy from the San Diego Water Board, each Copermittee must incorporate and implement the HMP for all Priority Development Projects.

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(d) Prior to acceptance of the HMP by the San Diego Water Board, the early implementation measures likely to be included in the HMP must be encouraged by the Copermittees.

(6) Interim Hydromodification Criteria

Immediately following adoption of this Order and until the final HMP required by this Order has been determined by the San Diego Water Board to be adequate, each Copermittee must ensure that all Priority Development Projects are implementing the hydromodification (aka Hydrologic Condition of Concern) requirements found in Section 4.4 of the 2006 Riverside County WQMP (updated in 2009) unless one of the following conditions in lieu of those specified in the WQMP are met:

(a) Runoff from the Priority Development Project discharges (1) directly to a conveyance channel or storm drain that is concrete lined all the way from the point of discharge to the ocean, bay, lagoon, water storage reservoir or lake; and (2) the discharge is in full compliance with Copermittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); and (3) the discharge will not cause increased upstream or downstream erosion or adversely impact downstream habitat; and (4) the discharge is authorized by the Copermittee.

(b) The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a project specific WQMP to address hydrologic condition concerns on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

(c) The runoff flow rate, volume, velocity, and duration for the postdevelopment condition of the Priority Development Project do not exceed the pre-development (i.e. naturally occurring) condition for the 2-year, 24-hour and 10-year, 24-hour rainfall events. This condition must be substantiated by hydrologic modeling acceptable to the Copermittee.

Once a final HMP is determined to be adequate and is required to be implemented, compliance with the final HMP is required by this Order and compliance with the 2004 WQMP (updated in 2009) or the in-lieu interim hydromodification criteria set forth above no longer satisfies the requirements of this Order.

(7) No part of section F.1.h eliminates the Copermittees' responsibilities for implementing the Low Impact Development requirements under section F.1.d.(4).

2. Requirements of Federal Law

Nothing in the CWA, its regulations, or case law requires local agencies to develop programs to require LID practices as described in 2010 Permit Sections F.1.d.(4) and F.1.d.(7), or to develop an HMP as described in 2010 Permit Section F.1.h., or to require projects that meet the requirements of 2010 Permit Sections F.1.d.(1) and F.1.d.(2) to implement the above described LID and HMP requirements. Indeed, the issue of whether similar requirements exceed the requirements of federal law, and represent reimbursable state mandates was considered by the Commission in the San Diego County Test Claim. In its decision, the Commission determined that “nothing in the federal regulation requires agencies to update local or model SSMPs.” San

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Diego County Test Claim, p. 51. In addition, the Commission determined that the hydromodification requirement constituted “a state-mandated, new program or higher level of service.” *Id.* *Department of Finance* confirms that the imposition of these detailed requirements represents a state, not federal mandate. See discussion in Section V.B, above.

The CWA only requires MS4 permits to impose controls that reduce the discharge of pollutants to the MEP. MEP is not defined, but the CWA suggests management practices, control techniques, and system, design, and engineering methods as options for attaining the maximum reduction possible. 33 U.S.C. § 1342(p)(3)(B)(iii). When suggestions are no longer merely being suggested as options for consideration “but are required acts, [t]hese requirements constitute a higher level of service.” San Diego County Test Claim at 51. The Commission’s analysis was confirmed by the Supreme Court in *Department of Finance*: “[T]he State was not compelled by federal law to impose any particular requirement. Instead . . . the Regional Board had discretion to fashion requirements which it determined would meet the CWA’s [MEP] standard.” 1 Cal. 5th at 768.

Federal regulations (40 CFR § 122.26(d)(2)(iv)(A)(2)) require as part of an MS4 permit application a plan for developing, implementing and enforcing controls to reduce the discharge from MS4s that originate in areas of new development. Requiring post-construction controls to limit pollutant discharges originating in areas of new development may be within these requirements, but the specific LID and HMP requirements contained in the 2010 Permit are not required in the regulations. By adopting permit provisions that require Copermitees to implement LID requirements and to develop and implement an HMP, the RWQCB freely chose to impose requirements and related costs that were not federally mandated and that, when mandated by the state, constituted a new program or higher level of service.

In the San Diego County Test Claim, the Commission found that the LID and hydromodification requirements were not reimbursable, because the County of San Diego and the other permittees retained the ability to assess fees for new development. With the passage of California’s Proposition 26 in November 2010, however, all costs associated with *developing* the LID and hydromodification programs may not be recoverable through fees. As discussed in Section V above, Proposition 26, which amends Article XIII C of the California Constitution, defines virtually any revenue device enacted by a local government as a “tax” requiring voter approval, unless it falls within certain enumerated exceptions.

In the San Diego County Test Claim, the Commission found that the LID and hydromodification requirements applicable to municipal projects were not reimbursable state mandates because the permittees were under no obligation to construct projects that would trigger these requirements. *Id.* at pp. 46, 52. The Commission cited the California Supreme Court’s decision in *Department of Finance v. Commission on State Mandates (KHSD)* (2003) 30 Cal.4th 727. In *KHSD*, the Court held that certain hearing requirements imposed upon school districts did not constitute a reimbursable state mandate because they were a requirement of voluntary program the school districts had elected to participate in. The Court held that “activities undertaken at the option or discretion of a local government entity (that is, actions undertaken without any legal

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compulsion or threat of penalty for nonparticipation) do not trigger a state mandate and hence do not require reimbursement.” *Id.* at 742.

The Supreme Court relied on *City of Merced v State of California* (1984) 153 Cal.App.3d 777. In that case, the city elected to take property by eminent domain, under which it was required by then-recent legislation to compensate the owner for loss of “business goodwill.” The city sought reimbursement from the state, arguing that this new statutory requirement was a reimbursable state mandate. The Court of Appeal concluded that the city's increased costs flowed from its optional decision to condemn the property, and, “whether a city or county decides to exercise eminent domain is, essentially, an option of the city or county, rather than a mandate of the state. . . . Thus, payment for loss of goodwill is not a state-mandated cost.” 153 Cal.App.3d at 783.

The facts that dictated the Court’s decision in *KHSD* are not present in the 2010 Permit. For one, the 2010 Permit was not a voluntary program, but one requiring Claimants to take immediate actions related to LID and hydromodification, including requirements that were not triggered by any voluntary action on the part of the Permittees. The 2010 Permit *required* Claimants to incur costs related to LID and hydromodification on municipal projects, such as recreational facilities, parking lots, streets, roads, highways. Moreover, the development and upkeep of these municipal land uses is not optional. These projects are integral to Claimants’ function as municipal entities, and the failure to make necessary repairs, upgrades and extensions can result in public health and safety issues and expose Claimants to liability.

The rationale of *City of Merced* is likewise inapplicable. In that case, the city could have *chosen* to avoid the goodwill reimbursement by purchasing the property rather than taking it by eminent domain. Under the 2010 Permit, Claimants had no such option, as the permit required Claimants to incur new, additional costs on every qualifying municipal project.

Moreover, the California Supreme Court has rejected the applicability of *City of Merced* in circumstances beyond those present in *KHSD*. In *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, the Court considered similar regulatory requirements to those at issue in *KHSD*. The Court discussed its decision in *KHSD*, at length, and cautioned against future reliance on *City of Merced*, holding:

[W]e agree with the District and amici curiae that ***there is reason to question an extension of the holding of City of Merced so as to preclude reimbursement under article XIII B, section 6 of the state Constitution and Government Code section 17514 whenever an entity makes an initial discretionary decision that in turn triggers mandated costs.*** Indeed, it would appear that under a strict application of the language in *City of Merced*, public entities would be denied reimbursement for state-mandated costs in apparent contravention of the intent underlying article XIII B, section 6 of the state Constitution and Government Code section 17514 and contrary to past decisions in which it has been established that reimbursement was in fact proper. For example, as explained above, in *Carmel Valley, supra*, 190 Cal.App.3d 521, an executive order requiring that county firefighters be provided

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with protective clothing and safety equipment was found to create a reimbursable state mandate for the added costs of such clothing and equipment. (*Id.*, at pp. 537–538.) The court in *Carmel Valley* apparently did not contemplate that reimbursement would be foreclosed in that setting merely because a local agency possessed discretion concerning how many firefighters it would employ—and hence, in that sense, could control or perhaps even avoid the extra costs to which it would be subjected. Yet, under a strict application of the rule gleaned from *City of Merced*, *supra*, 153 Cal.App.3d 777, such costs would not be reimbursable for the simple reason that the local agency's decision to employ firefighters involves an exercise of discretion concerning, for example, how many firefighters are needed to be employed, etc. We find it doubtful that the voters who enacted article XIII B, section 6, or the Legislature that adopted Government Code section 17514, intended that result, and hence we are reluctant to endorse, in this case, an application of the rule of *City of Merced* that might lead to such a result.

33 Cal.4th at 887-88 (emphasis supplied).

Thus, strict reliance on *City of Merced* is only appropriate in the very limited circumstances presented in *KHSD*. Those conditions are not present in the 2010 Permit, which imposes requirements on Claimants that are either wholly unrelated to voluntary action by Claimants, or are triggered by municipal projects that Claimants must implement with little to no discretion because they are integral to Claimants function as municipal entities. As set forth above, and in greater detail below, these requirements exceed federal law and represent reimbursable state mandates.

In addition, an additional specific requirement of Section F.1.h of the 2010 permit raises specific MEP issues. This requirement, contained in Section F.1.h.(2), required Claimants to not use “nonnaturally occurring hardscape materials such as concrete, riprap, gabions, etc. to reinforce stream channels” when employing in-stream controls used as management measures to protect and restore downstream beneficial uses and for preventing or minimizing further adverse physical changes. This requirement in particular is not practicable. As set forth in the Declaration of Jason Uhley Regarding Additional Factual Issues, ¶ 6 (“Uhley Declaration”) (attached in Section 7) because in a majority of situations, such materials are necessary to protect lives and property in the process of reinforcing stream channels.

3. Requirements of 2004 Permit

The 2004 Permit, while containing provisions relating to PDPs, did not include the provisions relating to the one-acre construction site threshold or new development projects that create 10,000 square feet or more of impervious surface. The 2004 Permit also did not require Claimants to develop and implement LID permit requirements or an HMP.

4. Mandated Activities

To comply with the LID and hydromodification requirements in the 2010 Permit, the Claimants were required to develop and implement a number of new programs. The specific mandated activities are set forth above and included:

- Applying Standard Stormwater Mitigation Plan (“SSMP”) requirements to an increased range of municipal projects implemented by the Claimants, which meet the requirements of to F.1.d(1) and F.1.d.(2).
- Requiring implementation of LID practices and development and implementation of an LID Waiver program, as described in F.1.d(4) and F.1.d(7), on municipal PDPs implemented by the Claimants. This will require creating a formalized review process for all PDPs, developing protocols for assessing each PDP for various required types of LID, training staff on the new protocols, assessing potential on- or off-site collection and reuse of storm water, amending local ordinances to remove barriers to LID implementation, maintaining or restoring natural storage reservoirs and drainage corridors, draining a portion of impervious areas into pervious areas, and constructing low-traffic areas with permeable surfaces. Projects that are subject to these requirements include municipal yards, recreation centers, civic centers, and road improvements, and any other municipal projects meeting the permit-specified thresholds or geographical criteria.
- Requiring development of an HMP, and implementation of those HMP requirements on municipal PDPs implemented by the Claimants pursuant to Part F.1.h. To comply with part F.1.h, the Copermittees must invest significant resources to hold public hearings, hold collaborative meetings, perform studies and develop an HMP, train staff and the public, and adopt the local SSMP. In addition, as noted above, Claimants are prohibited from using non-natural materials in reinforcing stream channels, a prohibition which is not practicable. Continued compliance with these sections will also require Copermittees to add requirements to municipal projects and will significantly increase the costs of design and construction.

In response to these requirements, the District, using funding contributed by the Claimants through the Implementation Agreement, developed a SSMP, an HMP with publicly available hydromodification modelling software, a BMP Design Manual, developed and provided training for the Claimants and the development community and revised the JRMP template. The Claimants incurred additional direct costs implementing these requirements. *See* Section 6 Declarations, Paragraph 5(d).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(d), the Claimants incurred increased costs to address the requirements of this mandate of \$61,122.06 in FY 2010-11 and \$685,201.78 in FY 2011-12.

E. BMP Maintenance Tracking Requirements

Provisions in Section F.1.f of the 2010 Permit required Claimants to develop and maintain a watershed-based database to track all projects that have a final approved SSMP and structural BMPs, including projects dating back to July 2005 (before the effective date of the 2010 Permit) and to inspect such BMPs on a routine basis.

1. Applicable Requirements in 2010 Permit

Section F.1.f

BMP MAINTENANCE TRACKING

(1) Inventory of SSMP projects: Each Copermittee must develop and maintain a watershed-based database to track and inventory all projects constructed within their jurisdiction, that have a final approved SSMP (SSMP projects), and its structural post-construction BMPs implemented therein since July, 2005. LID BMPs implemented on a lot by lot basis at single family residential houses, such as rain barrels, are not required to be tracked or inventoried. At a minimum, the database must include information on BMP type(s), location, watershed, date of construction, party responsible for maintenance, dates and findings of maintenance verifications, and corrective actions, including whether the site was referred to the local vector control agency or department.

(2) Each Copermittee must verify that approved post-construction BMPs are operating effectively and have been adequately maintained by implementing the following measures:

...

(b) Beginning on July 1, 2012, each Copermittee must verify that the required structural post-construction BMPs on the inventoried SSMP projects have been implemented, are maintained, and are operating effectively through inspections, self-certifications, surveys, or other equally effective approaches with the following conditions:

- (i) The implementation, operation, and maintenance of all (100 percent) approved and inventoried final project public and private SSMPs (a.k.a. WQMPs) must be verified every five years;
- (ii) All (100 percent) projects with BMPs that are high priority must be inspected by the Copermittee annually prior to each rainy season;
- (iii) All (100 percent) Copermittee projects with BMPs must be inspected by the Copermittee annually;
- (iv) At the discretion of the Copermittee, its inspections may be coordinated with the facility inspections implemented pursuant to

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section F.3. of this Order;

(v) For verifications performed through a means other than direct Copermittee inspection, adequate documentation must be submitted to the Copermittee to provide assurance that the required maintenance has been completed;

(vi) Appropriate follow-up measures (including re-inspections, enforcement, maintenance, etc.) must be conducted to ensure the treatment BMPs continue to reduce storm water pollutants as originally designed; and

(vii) Inspections must note observations of vector conditions, such as mosquitoes. Where conditions are identified as contributing to mosquito production, the Copermittee must notify its local vector control agency.

2. Requirements of Federal Law

Nothing in the CWA, its regulations, or case law requires local agencies to develop, fund, and implement a retroactive BMP maintenance tracking database and inspection program. EPA regulations require MS4 permits to include “[a] description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers.” 40 CFR § 122.26(d)(2)(iv)(A)(1). This general requirement did not mandate the actions required by Section F.1.f of the 2010 Permit. Like the general requirements in the CWA regulations reviewed by the Supreme Court in *Department of Finance*, this requirement cannot be bootstrapped into a federal mandate, given that the RWQCB exercised its “true choice” to impose the specific requirements in Section F.1.f of the 2010 Permit. 1 Cal. 5th at 765. *Accord, Long Beach Unified School Dist., supra*, 225 Cal.App.3d at 172-73 (when state exercises its discretion to impose requirements that exceed the express requirements of a federal law or program, it imposes a state mandate).

3. Requirements of 2004 Permit

The 2004 Permit contained no requirements found in the above-referenced provisions of Section F.1.f of the 2010 Permit. These requirements thus represented a new program and/or higher level of service.

4. Mandated Activities

- The Permittees were required to retroactively develop and populate a database of information for each SSMP project that has been built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions. The retroactive component of this requirement will require the claimants to incur costs that cannot otherwise be recovered through fees.
- The Permittees were required to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects.

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To address these requirements, the District, through the cost-sharing mechanism in the Implementation Agreement among the Claimants, developed a template BMP tracking spreadsheet and an update of the JRMP template. The Claimants incurred additional direct costs implementing these requirements. *See* Section 6 Declarations, Paragraph 5(e).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(e), the Claimants incurred increased costs to address the requirements of this mandate of \$58,475.07 in FY 2010-11 and \$56,807.30 in FY 2011-12.

F. Construction Site Requirements

Provisions of Section F.2 of the 2010 Permit mandated Claimants to require (and at their own construction sites, to adopt) Active/Passive Sediment Treatment (“AST”) at construction sites determined to be “an exceptional threat to water quality” based on various factors set forth in the 2010 Permit. The provisions also required Claimants to, during inspections of construction sites, review site monitoring data results if the construction site monitored its runoff.

1. Applicable Requirements in 2010 Permit

Section F.2.d

(3) Active/Passive Sediment Treatment (AST): Each Copermittee must require implementation of AST for sediment at construction sites (or portions thereof) that are determined by the Copermittee to be an exceptional threat to water quality. In evaluating the threat to water quality, the following factors must be considered by the Copermittee:

- (a) Soil erosion potential or soil type;
- (b) The site’s slopes;
- (c) Project size and type;
- (d) Sensitivity of receiving water bodies;
- (e) Proximity to receiving water bodies;
- (f) Non-storm water discharges;
- (g) Ineffectiveness of other BMPs;
- (h) Proximity and sensitivity of aquatic threatened and endangered species of concern;
- (i) Known effects of AST chemicals; and
- (j) Any other relevant factors.

Section F.2.e

INSPECTION OF CONSTRUCTION SITES

Each Copermittee must conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order. Priorities for inspecting sites must consider the nature and size of the construction activity, topography, and the characteristics of soils and receiving water quality.

...

(6) Inspections of construction sites must include, but not be limited to:

...

(e) Review of site monitoring data results, if the site monitors its runoff

2. Requirements of Federal Law

The CWA requires that MS4 permits shall require controls “to reduce the discharge of pollutants to the maximum extent practicable.” 33 U.S.C. § 1342(p)(3)(B)(iii). The CWA regulations (40 CFR § 122.26(d)(2)(iv)(D)) provide that the proposed management program to be implemented by MS4 permittees include a “description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system.” Nothing in the CWA or the implementing regulations requires the installation of AST technology at high priority construction sites, or the identification of such sites by permittees. The RWQCB’s exercise of its discretion to specify these requirements represents a federal mandate. *Department of Finance*, 1 Cal. 5th at 768.

As also noted above, an NPDES permit can contain both federal and non-federal requirements. *City of Burbank, supra*, 35 Cal.4th at 618, 628. Where state-mandated activities exceed federal requirements, those mandates constitute a reimbursable state mandate. *Long Beach Unified School Dist., supra*, 225 Cal.App.3d at 172-73.

Moreover, as noted above, a “new program or higher level of service” imposed by the State upon a municipality as a result of a federal law or federal program is not necessarily a “federal mandate.” The test for determining whether the “new program or higher level of service” is a state mandate is whether the state has freely chosen to impose that program on local municipalities as opposed to performing the obligation itself. *Department of Finance*, 1 Cal. 5th at 771; *Hayes*, 11 Cal.App.4th at 1593-94. This is the case with the requirement in Section F.2.e.6(e) for Claimants to review collected monitoring data. Such a requirement to review data is already delegated to the state (through the RWQCB) in the state General Construction Permit, a permit issued by the state and for which the state collects fees. By shifting the review function to Claimants, the state has created a state mandate pursuant to *Department of Finance* and *Hayes*.

3. Requirements of 2004 Permit

The requirements to install ASTs and to review monitoring data were not included in the 2004 Permit and represent a new program and/or higher level of service.

4. Mandated Activities

- Claimants were required to install AST technology at specified construction sites, potentially including municipal projects.

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- Claimants were required, when they inspected construction sites, to review any collected monitoring data. This required Claimants to ensure that their inspection staff were trained at the same level as state inspectors, such as those from the RWQCB. It should be noted that Claimants cannot collect fees to cover the increased costs to train on and review this data, as the State already collects fees for such a service as part of the General Construction Permit.

To address these requirements, the District, through the cost-sharing mechanism in the Implementation Agreement, conducted training of Claimant staff and updated the JRMP template. The Claimants incurred additional direct costs implementing these requirements. *See* Section 6 Declarations, Paragraph 5(f).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(f), the Claimants incurred increased costs to address the requirements of this mandate of \$3,825.77 in FY 2010-11 and \$3,161.85 in FY 2011-12.

G. Unpaved Roads BMP Requirements

Sections F.1.i. and F.3.a.10 of the 2010 Permit required Claimants to develop and implement BMPs to address erosion and sediment and other impacts from the development and maintenance of unpaved roads. Claimants were also required to develop and implement BMPs for erosion and sediment control during maintenance of unpaved roads, maintain such roads to reduce erosion and sediment transport, re-grade the roads in specified manners or employ alternative equally effective BMPs and examine the feasibility of replacing existing culverts or design of new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology.

1. Applicable Requirements in 2010 Permit

Section F.1.i

UNPAVED ROADS DEVELOPMENT

The Copermittees must develop, where they do not already exist, and implement or require implementation of erosion and sediment control BMPs after construction of new unpaved roads. At a minimum, the BMPs must include the following, or alternative BMPs that are equally effective:

- (1) Practices to minimize road related erosion and sediment transport;
- (2) Grading of unpaved roads to slope outward where consistent with road engineering safety standards;
- (3) Installation of water bars as appropriate; and
- (4) Unpaved roads and culvert designs that do not impact creek functions and where applicable, that maintain migratory fish passage.

Section F.3.a.10

Copermittee Maintained Unpaved Roads Maintenance

- (a) The Copermittees must develop, where they do not already exist, and implement or require implementation of BMPs for erosion and sediment control measures during their maintenance activities on Copermittee maintained unpaved roads, particularly in or adjacent to receiving waters.
- (b) The Copermittees must develop and implement or require implementation of appropriate BMPs to minimize impacts on streams and wetlands during their unpaved road maintenance activities.
- (c) The Copermittees must maintain as necessary their unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport;
- (d) Re-grading of unpaved roads during maintenance must be sloped outward where consistent with road engineering safety standards or alternative equally effective BMPs must be implemented to minimize erosion and sedimentation from unpaved roads; and
- (e) Through their maintenance of unpaved roads, the Copermittees must examine the feasibility of replacing existing culverts or design of new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology.

2. Requirements of Federal Law

The CWA regulations require that in the MS4 management program, there be a “description for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems.” 40 CFR § 122.26(d)(2)(iv)(A)(3). The unpaved roads requirements in the 2010 Permit, however, did not address discharges from the MS4, but rather all discharges (including sheet, non-point source discharges) from any unpaved roads, without any link to discharges from the MS4. As such, this requirement goes beyond the “four corners” of the 2010 Permit, which is expressly intended to address discharges from Claimants’ MS4. *See* Section A of the 2010 Permit, whose prohibitions address only discharges “into and from MS4s.”

Nothing in Sections F.1.i or F.3.a.10 limits the development and implementation of BMPs with respect to the maintenance of unpaved roads to those which would discharge into or from an MS4. In fact, as set forth in ¶7 of the Uhley Declaration, many unpaved roads within the Santa Margarita Region of Riverside County do not qualify as MS4s or do not discharge into the MS4 serving municipalities within that region. Thus, discharges of sediment from such roads are not discharges into or from the MS4. Because these provisions went beyond the basic scope of the 2010 Permit, and indeed the MS4 provisions of the CWA (which address discharges from MS4s, 33 U.S.C. § 1342(p)(3)(B)(ii)-(iii)), the requirements were imposed by the RWQCB apparently as a function of their authority under the state Porter-Cologne Act, which applies to all waters of the state. That imposition, while within the RWQCB’s authority under Porter-Cologne, is not a federal mandate. Were it to be concluded that at least in part, the unpaved road BMP requirements related to MS4 discharges, the specific and detailed requirements set forth in the 2010 Permit represent

the exercise by the RWQCB of its “true choice” to impose such requirements. *Department of Finance*, 1 Cal. 5th at 765.

3. Requirements of 2004 Permit

The 2004 Permit does not address any requirements for the development and implementation of BMPs for unpaved roads, nor even identifies unpaved roads as a source of concern. As such, the requirements of Sections F.1.i and F.3.a.10 of the 2010 Permit represented new programs and/or higher levels of service.

4. Mandated Activities

Claimants were required under Section F.1.i. to develop and implement or require implementation of erosion and sediment control BMPs, including with respect to erosion and sediment transport, road grading to slope the grade outwards, installation of water bars as appropriate and design of unpaved roads and culverts that do not impact creek functions and maintain migratory fish passage. Claimants were required under Section F.3.a.10 to develop and implement BMPs for erosion and sediment control measures during maintenance of unpaved roads, to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance, maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, re-grade unpaved roads to slope outward where consistent with safety standards or adopt alternative equally effective BMPs to minimize erosion and sedimentation from unpaved roads, and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology.

To address these requirements, the District, through the cost-sharing mechanism in the Implementation Agreement, revised the JRMP template and SSMP to incorporate the road maintenance provisions. The Claimants incurred additional direct costs in implementing these requirements. *See* Section 6 Declarations, Paragraph 5(g).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(g), the Claimants incurred increased costs to address the requirements of this mandate of \$465,662.82 in FY 2010-11 and \$596,439.14 in FY 2011-12.

H. Industrial/Commercial Inspection Requirement

Section F.3.b.4(a)(ii) of the 2010 Permit provided that Claimants review facility monitoring data as part of an inspection program of commercial/industrial facilities if the facility monitored its runoff.

1. Applicable Requirements in 2010 Permit

Section F.3.b.4

Inspection of Industrial and Commercial Sites/Sources

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Each Copermittee must conduct industrial and commercial site inspections for compliance with its ordinances, permits, and this Order. Mobile businesses must be inspected as needed pursuant to section F.3.b.(3).

(a) Inspection Procedures: Inspections must include but not be limited to:

...

(ii) Review of facility monitoring data, if the site monitors its runoff;

2. Requirements of Federal Law

The CWA regulations set forth the list of facilities required to be inspected pursuant to the Act, which are municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and industrial facilities that a municipality has determined to be contributing a substantial pollutant loading to the municipal storm sewer system. 40 C.F.R. § 122.26(d)(2)(iv)(C). Nothing in the CWA or its regulations addresses any requirement for Claimants, as Copermittees, to review stormwater monitoring data. Such a review requirement is, in fact, a shifting of responsibility from the state to the local agencies.

As noted above, one test for determining whether the “new program or higher level of service” is a state mandate, even where the underlying requirement may arise from federal law, is whether the state has freely chosen to impose that program on local municipalities as opposed to performing the obligation itself. *Hayes, supra*, 11 Cal.App.4th at 1593-94. The Supreme Court addressed this issue in *Department of Finance*, where it held that an LA County permit requirement that similarly shifted inspection requirements to the MS4 operators represented a state mandate. 1 Cal. 5th at 771. This is the case with the requirement in Section F.3.b.4(a)(ii) to review collected monitoring data. Such a requirement to review data is already delegated to the state (through the RWQCB) in the state General Industrial Permit, a permit issued by the state and for which the state collects fees. By shifting the review function to Claimants, the state has created a state mandate pursuant to *Department of Finance* and *Hayes*.

3. Requirements of 2004 Permit

The 2004 Permit, while it required inspections of various commercial and industrial facilities in Section H.2.d, did not require review of monitoring data. Such review represented an additional new program and/or higher level of service.

4. Mandated Activities

Section F.3.b.4(a)(ii) of the 2010 Permit required Claimants to, when they inspected industrial/commercial facilities, review any collected monitoring data. This required Claimants to ensure that their inspection staff were trained at the same level as state inspectors, such as those from the RWQCB. It should be noted that the Claimants could not collect fees to cover the increased costs to train on and review this data, as the State already collected fees for such a service as part of the statewide General Industrial Permit.

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To address these requirements, the District, through the cost-sharing mechanism in the Implementation Agreement, provided various training updates and revised the JRMP template to incorporate these requirements. The Claimants also incurred additional direct costs to implement these requirements. *See* Section Declarations, Paragraph 5(h).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(h), the Claimants incurred increased costs to address the requirements of this mandate of \$15,330.14 in FY 2010-11 and \$15,384.24 in FY 2011-12.

I. Requirement to Develop Program to Retrofit Existing Development

Section F.3.d of the 2010 Permit required Claimants to develop and implement a new program, which is not required under federal law or previous permits, to retrofit existing development. The 2010 Permit required Claimants to identify areas of existing developments, including municipal developments, as candidates for retrofitting, evaluate and rank candidates according to pre-established criteria, prioritize work plans for implementation according to the evaluation, cooperate with landowners to encourage retrofit of private improvements, and track and inspect retrofitting projects. Permittees were required to invest significant staff time and other valuable resources into developing and implementing this new program.

1. Applicable Requirements of 2010 Permit

Section F.3.d

(1) The Copermittee(s) must identify and inventory existing areas of development (i.e. municipal, industrial, commercial, residential) as candidates for retrofitting. Potential retrofitting candidates must include but are not limited to:

- (a) Areas of development that generate pollutants of concern to a TMDL or an ESA;
- (b) Receiving waters that are channelized or otherwise hardened;
- (c) Areas of development tributary to receiving waters that are channelized or otherwise hardened;
- (d) Areas of development tributary to receiving waters that are significantly eroded; and
- (e) Areas of development tributary to an ASBS or SWQPA.

(2) Each Copermittee must evaluate and rank the inventoried areas of existing developments to prioritize retrofitting. Criteria for evaluation must include but is not limited to:

- (a) Feasibility;
- (b) Cost effectiveness;
- (c) Pollutant removal effectiveness, including reducing pollutants exceeding action level;
- (d) Tributary area potentially treated;
- (e) Maintenance requirements;
- (f) Landowner cooperation;

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- (g) Neighborhood acceptance;
- (h) Aesthetic qualities;
- (i) Efficacy at addressing concern; and
- (j) Potential improvements on public health and safety.

(3) Each Copermittee must consider the results of the evaluation in prioritizing work plans for the following year in accordance with Sections G.1 and J. Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs. Where feasible, the retrofit projects may be designed in accordance with the SSMP requirements within sections F.1.d.(3) through F.1.d.(8) and the Hydromodification requirements in Section F.1.h.

(4) The Copermittees must cooperate with private landowners to encourage site specific retrofitting projects. The Copermittee must consider the following practices in cooperating and encouraging private landowners to retrofit their existing development:

- (a) Demonstration retrofit projects;
- (b) Retrofits on public land and easements that treat runoff from private developments;
- (c) Education and outreach;
- (d) Subsidies for retrofit projects;
- (e) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;
- (f) Public and private partnerships; and
- (g) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

(5) The known completed retrofit BMPs must be tracked in accordance with Section F.1.f. Retrofit BMPs on publicly owned properties must be inspected per section F.1.f . Privately owned retrofit BMPs must be inspected as needed.

...

2. Requirements of Federal Law

Nothing in the CWA, its regulations, or case law requires local agencies to develop, fund, and implement a retrofitting program. The only retrofitting requirement in the CWA regulations is one which requires MS4 permits to include “[a] description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible.” 40 CFR § 122.26(d)(2)(iv)(A)(1). This requirement, however, applies only to structural flood control devices and does not apply to the type of comprehensive program required in Section F.3.d of the 2010 Permit.

The 2010 Permit Fact Sheet cited, in a footnote, the MS4 Permit Improvement guidance published by U.S. EPA. 2010 Permit Fact Sheet, p. 158, n.220. Such guidance, of course, has no legal or regulatory effect. Moreover, the provisions of this guidance did not specify any requirements except the assembling of an inventory of potential retrofitting sites and then evaluating and ranking such sites. Section F.3.d of the 2010 Permit, however, went further in

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requiring Claimants to, among other things, consider the results of the evaluation in prioritizing work plans, to cooperate with private landowners to “encourage site specific retrofitting projects” and to track known completed retrofit BMPs. *Id.* The extensive retrofitting requirements in the 2010 Permit are analogous to, though more prescriptive than, the inspection and trash receptacle requirements found to be state mandates in the LA County permit. *Department of Finance*, 1 Cal. 5th at 770-72. The RWQCB, in imposing these specific requirements, was imposing a state mandate. *Id.* at 768.

3. Requirements in 2004 Permit

Nothing in the 2004 Permit required a retrofitting program. Thus, the retrofitting requirements found in Section F.3.d of the 2010 Permit represented a new program and/or higher level of service.

4. Mandated Activities

Section F.3.d imposed at least five new requirements on Claimants, requirements which were not required by federal law and represented state mandates for which Claimants are entitled to reimbursement. The costs of developing and implementing the retrofitting program for existing development for which Permittees should be reimbursed arise from the extensive list of requirements in the 2010 Permit. These requirements include:

- Identifying potential retrofitting candidates by researching and locating developments that contribute to a TMDL or ESA, that are channelized or hardened, that are tributary to receiving waters which are an ASBS, SWQPA, or are significantly eroded;
- Evaluating the feasibility, cost effectiveness, pollutant removal effectiveness, tributary area, maintenance requirements, landowner cooperation, neighborhood acceptance, aesthetic qualities, efficacy at addressing concern, and potential for improvement in public health and safety for each potential retrofitting candidate and then ranking each candidate accordingly;
- Prioritizing retrofit projects in the following year’s municipal work plan and designing retrofit projects according to the SSMP requirements and hydromodification where feasible;
- Cooperating with and encouraging private landowners to undertake site-specific retrofit projects; and
- Tracking and inspecting retrofit BMPs.

To address these requirements, the Claimants, through the cost-sharing mechanism set forth in the Implementation Agreement, retained a consultant to develop a Retrofit Study and revised the JRMP template to incorporate these requirements. The Claimants incurred additional direct costs to implement these requirements. *See* Section 6 Declarations, Paragraph 5(i).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(i), the Claimants incurred increased costs to address the requirements of this mandate of \$2,284.39 in FY 2010-11 and \$190,178.22 in FY 2011-12.

J. Watershed Water Quality Workplan Requirements

Section G of the 2010 Permit required Claimants to develop and implement a Watershed Water Quality Workplan (“Watershed Workplan”) to identify, prioritize, address and mitigate “the highest priority water quality issues/pollutants in the Upper Santa Margarita Watershed.” 2010 Permit at 74.

1. Applicable Requirements in 2010 Permit

Section G

WATERSHED WATER QUALITY WORKPLAN

Each Copermittee must collaborate with other Copermittees to develop and implement a Watershed Water Quality Workplan (Watershed Workplan) to identify, prioritize, address, and mitigate the highest priority water quality issues/pollutants in the Upper Santa Margarita Watershed.

1. Watershed Workplan Components

The work plan must, at a minimum:

- a. Characterize the receiving water quality in the watershed. Characterization must include assessment and analysis of regularly collected water quality data, reports, monitoring and analysis generated in accordance with the requirements of the Receiving Waters Monitoring and Reporting Program, as well as applicable information available from other public and private organizations. This characterization must include an updated watershed map.
- b. Identify and prioritize water quality problem(s) in terms of constituents by location, in the watershed’s receiving waters. In identifying water quality problem(s), the Copermittees must, at a minimum, give consideration to TMDLs, receiving waters listed on the CWA section 303(d) list, waters with persistent violations of water quality standards, toxicity, or other impacts to beneficial uses, and other pertinent conditions.
- c. Identify the likely sources, pollutant discharges and/or other factors causing the highest water quality problem(s) within the watershed. Efforts to determine such sources must include, but not be limited to: use of information from the construction, industrial/commercial, municipal, and residential source identification programs required within the JRMP of this Order; water quality monitoring data collected as part of the

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Receiving Water Monitoring and Reporting Program required by this Order, and additional focused water quality monitoring to identify specific sources within the watershed.

d. Develop a watershed BMP implementation strategy to attain receiving water quality objectives in the identified highest priority water quality problem(s) and locations. The BMP implementation strategy must include a schedule for implementation of the BMPs to abate specific receiving water quality problems and a list of criteria to be used to evaluate BMP effectiveness. Identified watershed water quality problems may be the result of jurisdictional discharges that will need to be addressed with BMPs applied in a specific jurisdiction in order to generate a benefit to the watershed. This implementation strategy must include a map of any implemented and/or proposed BMPs.

e. Develop a strategy to monitor improvements in receiving water quality directly Workplan. The monitoring strategy must review the necessary data to report on the measured pollutant reduction that results from proper BMP implementation. Monitoring must, at a minimum, be conducted in the receiving water to demonstrate reduction in pollutant concentrations and progression towards attainment of receiving water quality objectives.

f. Establish a schedule for development and implementation of the Watershed strategy outlined in the Workplan. The schedule must, at a minimum, include forecasted dates of planned actions to address Provisions E.2(a) through E.2(e) and dates for watershed review meetings through the remaining portion of this Permit cycle. Annual watershed workplan review meetings must be open to the public and appropriately publically noticed such that interested parties may come and provide comments on the watershed program.

2. Watershed Workplan Implementation

Watershed Copermittee's must implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the San Diego Water Board.

3. Copermittee Collaboration

Watershed Copermittees must collaborate to develop and implement the accepted Watershed Workplan. Watershed Copermittee collaboration must include frequent regularly scheduled meetings. The Copermittees must pursue efforts to obtain any interagency agreements, or other coordination efforts, with non-Copermittee owners of the MS4 (such as Caltrans, Native American tribes, and school districts) to control the contribution of pollutants from one portion of the shared MS4 to another portion of the shared MS4. . . .

4. Public Participation

Watershed Copermittees must implement a watershed-specific public participation mechanism within each watershed. A required component of the watershed-specific public participation mechanism must be a minimum 30-day public review of and opportunity to comment on the Watershed Workplan prior to submittal to the San Diego Water Board. The Workplan must include a description of the public participation mechanisms to be used and identification of the persons or entities anticipated to be involved during the development and implementation of the

Watershed Workplan.

5. Watershed Workplan Review and Updates

Watershed Copermittees must review and update the Watershed Workplan annually to identify needed changes to the prioritized water quality problem(s) listed in the workplan. All updates to the Watershed Workplan must be presented during an Annual Watershed Review Meeting. Annual Watershed Review Meetings must occur once every calendar year and be conducted by the Watershed Copermittees. Annual Watershed Review Meetings must be open to the public and adequately noticed. Individual Watershed Copermittees must also review and modify their jurisdictional programs and JRMP Annual Reports, as necessary, so that they are consistent with the updated Watershed Workplan.

2. Requirements of Federal Law

Nothing in the CWA or its implementing regulations required Claimants to prepare and implement the Watershed Workplan. The 2010 Permit Fact Sheet cites only to provisions in the regulations allowing for the establishment of watershed-based programs. *See, e.g.*, 40 CFR § 122.26(d)(2)(iv) (“Proposed programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls.”) However, these regulations do not require adoption of a workplan approach, which was specifically adopted by the RWQCB for the 2010 Permit. *See* 2010 Permit Fact Sheet at 166-67 (“Order No. R9-2010-0016 requires the watershed Copermittees to develop and follow a workplan approach towards assessing receiving water body conditions, prioritizing the highest priority water quality problems, implementing effective BMPs, and measuring water quality improvement in the receiving water.”)

The imposition of the specific requirements set forth in Section G of the 2010 Permit represents the exercise of the RWQCB’s choice to impose the workplan requirements. As such, they are state mandates. *Department of Finance*, 1 Cal. 5th at 765.

3. Requirements in 2004 Permit

While the 2004 Permit contained a requirement for permittees to develop and implement a Watershed SWMP (2004 Permit, Section K), the requirements of the 2010 Permit were significantly different and more demanding than in the earlier permit. Significant differences included the requirement to not only review monitoring data collected under the permit, but also data from “applicable information available from other public and private organizations;” to prioritize water quality problems “in terms of constituents by locations” not merely in the watershed generally; to identify likely sources, pollutant discharges and/or other factors causing the highest water quality problems within the watershed, including the requirement to conduct “additional focused water quality monitoring to identify specific sources within the watershed;” to develop a watershed BMP implementation strategy, including a schedule for implementing BMPs to abate specific receiving water quality problems; to develop a strategy to monitor improvements in receiving water quality directly resulting from BMP described in the Watershed Workplan; to “pursue efforts to obtain” interagency agreements with non-permittee MS4s to control contribution of pollutants “from one portion of the shared MS4 to another portion of the shared MS4 (the 2004

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Permit only required a description of any such agreements); to offer a 30-day public review and comment period prior to submittal of the Watershed Workplan to the RWQCB; and, to hold an Annual Watershed Review Meeting, open to the public and “adequately noticed.” *Compare* Sections G.1-G.5 of the 2010 Permit *with* Section K of the 2004 Permit.

These additional requirements were not just an incremental change to an existing program providing existing activities but rather represented a significant increase in the actual level and type of activities required of Claimants by the RWQCB. As such, it constituted a requirement for a “higher level of service” within the meaning of Article XIII B, section 6 of the California Constitution. *San Diego Unified School Dist., supra*, 33 Cal.4th at 877. The additional program elements described above therefore constitute unfunded mandates for which Claimants are constitutionally entitled to be reimbursed.

4. Mandated Activities

The above-cited provisions of Section G of the 2010 Permit required Claimants, in developing and implementing the Watershed Workplan, to:

-- Characterize watershed receiving water quality, including analyzing monitoring data collected under the 2010 Permit and from other public and private organizations;

-- Identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily loads, waters listed as impaired pursuant to CWA section 303(d), and other pertinent conditions;

-- Identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the 2010 Permit and additional focused water quality monitoring to identify specific sources;

-- Develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems;

-- Develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water;

-- Establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public;

-- Implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB;

-- Cooperate among permittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-permittee MS4 operators;

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-- Implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and

-- As part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed.

To address these requirements, the District, on behalf of the Claimants, retained a consultant through the cost-sharing mechanism in the Implementation Agreement to gather and analyze historic water quality monitoring data, develop, draft and submit the Watershed Workplan and revise the JRMP template. The Claimants incurred additional direct costs to implement these requirements. *See* Section 6 Declarations, Paragraph 5(j).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(j), the Claimants incurred increased costs to address the requirements of this mandate of \$11,746.43 in FY 2010-11 and \$21,513.94 in FY 2011-12.

K. Requirements Relating to JRMP Annual Report

Section K.3 of the 2010 Permit (including Table 5), and a checklist set forth in Attachment D, contained requirements relating to the preparation of an extensive JRMP Annual Report by Claimants covering implementation of jurisdictional activities, as well as extensive other requirements.

1. Applicable Requirements in 2010 Permit

Section K.3

Annual Reports

JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP) ANNUAL REPORTS

a. Each Copermittee must generate individual JRMP Annual Reports that cover implementation of its jurisdictional activities during the past annual reporting period. Each Annual Report must verify and document compliance with this Order as directed in this section. Each Copermittee must retain records in accordance with the Standard Provisions in Attachment B of this Order, available for review, that document compliance with each requirement of this Order. The reporting period for these annual reports must be the previous fiscal year.

b. Each Copermittee must submit its JRMP Annual Reports to the San Diego Water Board by October 31 of each year, beginning on October 31, 2013.

c. Each JRMP Annual Report must contain, at a minimum, the following information, as applicable to the Copermittee:

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- (1) Information required to be reported annually in Section H (Fiscal Analysis) of this Order;
- (2) Information required to be reported annually in Section J (Program Effectiveness) of this Order;
- (3) The completed Reporting Checklist found in Attachment D; and
- (4) Information for each program component as described in the following Table 5:

[Table 5 is not included, but can be found on pages 82-85 of the 2010 Permit. Also, Attachment D is not included, but is included in Section 7.]

2. Requirements of Federal Law

The CWA regulations, at 40 CFR § 122.42(c), require that MS4 permittees must submit an annual report by the anniversary of the date of the issuance of the permit. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition, consistent with § 122.26(d)(2)(iii); (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v); (4) A summary of data, including monitoring data, accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and, (7) Identification of water quality improvements or degradation.

While certain requirements in Section K.3 were mandated by the regulations, the provision considerably exceeded federal law. The regulations require that the annual report provide a “summary of data, including monitoring data” and a summary describing the number and nature of enforcement actions, inspections and public educations programs. Section K.3 (incorporating Table 5) required far more: that the report include detailed tracking of various elements, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implement at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Claimants were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implement retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, Claimants were required to submit a checklist that required, among other things, the listing of active and inactive construction

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sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected.

Such additional requirements, and others, represented a higher level of service and/or new program constituted an unfunded state mandate. In fact, the RWQCB's Fact Sheet for the 2010 Permit cites Water Code § 13267 as additional authority for these requirements. 2010 Permit Fact Sheet, p. 174. The imposition of these additional requirements represents the "true choice" of the RWQCB and is, therefore a state mandate. *Department of Finance*, 1 Cal. 5th at 765, 768.

3. Requirements of 2004 Permit

The 2004 Permit did not contain the detailed requirements set forth in Section K.3.c. of the 2010 Permit, but rather, in the 2004 Permit's Standard Provisions section, simply recited the requirements of 40 CFR § 122.42(c). *See* 2004 Permit, Page B-6.

4. Mandated Activities

New requirements not in the 2004 Permit included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Claimants were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, Claimants were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected.

To address these requirements, the District, through the cost-sharing mechanism in the Implementation Agreement, developed revisions to the JRMP and annual report templates. The Claimants incurred additional direct costs in implementing these requirements. *See* Section 6 Declarations, Paragraph 5(k).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(k), the Claimants incurred increased costs to address the requirements of this mandate of \$132,166.33 in FY 2010-11 and \$131,321.50 in FY 2011-12.

L. Special Studies Requirements

Attachment E to the 2010 Permit, the Monitoring and Reporting Program (“MRP”) included requirements that Claimants conduct several “special studies” regarding waters within the Santa Margarita Region. These studies were not required by the CWA or its implementing regulations, and instead represented the RWQCB’s choice and mandate that Claimants undertake such studies.

1. Applicable Requirements in 2010 Permit

Attachment E to 2010 Permit

E. Special Studies

1. The Copermittees must conduct special studies, including any monitoring and/or modeling required for TMDL development and implementation, as directed by the San Diego Water Board.
2. Sediment Toxicity Study

The Copermittees must develop and submit to the San Diego Water Board by April 01, 2012, a special study workplan to investigate the toxicity of sediment in streams and potential impact on benthic macroinvertebrate IBI scores. The Sediment Toxicity Special Study must be implemented in conjunction with the Stream Assessment Monitoring in II.A.2. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board. The Sediment Toxicity Special Study must include the following elements:

- a. Sampling Locations: At least 4 stream assessment locations must be sampled, including 1 reference site and 1 mass loading site. Selection of sites must be done with consideration of subjectivity of receiving waters to discharges from residential and agricultural land uses.
- b. Frequency: At a minimum, sampling must occur once per year at each site for at least 2 years. Sampling must be done in conjunction with the stream assessment sampling required under Section II.A.2 of the Monitoring and Reporting Program of this Order.
- c. Parameters/Methods: At a minimum, sediment toxicity analysis must include the measurement of metals, pyrethroids and organochlorine pesticides. The analysis must include estimates of bioavailability based upon sediment grain size, organic carbon and receiving water temperature at the sampling site. Acute and chronic toxicity testing must be done using *Hyalella azteca* in accordance with Table 2.

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d. Results: Results and a Discussion must be included in the Monitoring Annual Report (see III.A). The Discussion must include an assessment of the relationship between observed IBI scores under Section II.A.2 and all variables measured.

3. Trash and Litter Investigation

The Copermittees must develop and submit to the San Diego Water Board by September 01, 2012, a special study workplan to assess trash (including litter) as a pollutant within receiving waters on a watershed based scale. Litter is defined in California Government Code 68055.1g as "...improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or container constructed of steel, aluminum, glass, paper, plastic and other natural and synthetic, materials, thrown or deposited on lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing." A lead Copermittee must be selected for the Santa Margarita HU for the purposes of this Special Study. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board

The Trash and Litter Investigation must include the following elements:

- a. Locations: The lead Copermittee must identify suitable sampling locations within the Santa Margarita HU.
- b. Frequency: Trash at each location must be monitored a minimum of twice during the wet season following a qualified monitoring storm event (minimum of 0.1 inches preceded by 72 hours of dry weather) and twice during the dry season.
- c. Protocol: The lead Copermittee for the Santa Margarita HU must use the "Final Monitoring Workplan for the Assessment of Trash in San Diego County Watersheds" and "A Rapid Trash Assessment Method Applied to Waters of the San Francisco Bay Region" to develop a monitoring protocol for the Santa Margarita HU.
- d. Results and Discussion from the Trash and Litter Study must be included in the Monitoring Annual Report. The Results and Discussion must, at a minimum, include source identification, an evaluation of BMPs for trash reduction and prevention, and a description of any BMPs implemented in response to study results.

4. Agricultural, Federal and Tribal Input Study

The Copermittees must develop and submit to the San Diego Water Board by September 01, 2012, a special study workplan to investigate the water quality of agricultural, federal and tribal runoff that is discharged into their MS4 (see Finding D.3.c of the Order). The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board. The Agricultural, Federal and Tribal Input Special Study must include the following elements:

- a. Locations: The Copermittees must identify a representative number of sampling stations within their MS4 that receive discharges of agricultural, federal, and tribal runoff that has not co-mingled with any other source. At least one station from each category must be identified.

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b. Frequency: One storm event must be monitored at each sampling location each year for at least 2 years.

c. Parameters/Methods: At a minimum, analysis must include those constituents listed in Table 1 of the MRP (see II.A.1). Grab samples may be utilized, though composite samples are preferred. Copermittees must also measure or estimate flow rates and volumes of discharges into the MS4.

d. Results: Results and Discussion from the Agricultural, Federal and Tribal Input Study must be included in the Monitoring Annual Report.

5. MS4 and Receiving Water Maintenance Study

The Copermittees must develop and submit to the San Diego Water Board by April 01, 2012, a special study workplan to investigate receiving waters that are also considered part of the MS4 (see Finding D.3.c of the Order) and which are subject to continual vegetative clearance activities (e.g. mowing). The study must be designed to assess the effects of vegetation removal activities and water quality, including, but not limited to, modification of biogeochemical functions, in-stream temperatures, receiving water bed and bank erosion potential and sediment transport. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board.

The MS4 and Receiving Water Maintenance Special Study must include the following elements:

a. Locations: The Copermittees must identify suitable sampling locations, including at least one reference system that is not subject to maintenance activities.

b. Parameters/Methods: At a minimum, the Copermittees must monitor pre and post maintenance activities for indicator bacteria, turbidity (NTU), temperature, dissolved oxygen and nutrients (Nitrite, Nitrate, Total Kjeldahl Nitrogen, Ammonia and Total Phosphorous). Copermittees must also measure or estimate flow rates and volumes.

c. Results and Discussion from the MS4 and Receiving Water Maintenance Study must be included in the Annual Monitoring Report. The Discussion must include relevance of findings to CWA Section 303(d) listed impaired waters.

2. Requirements of Federal Law

The federal CWA regulations, at 40 CFR § 122.26(d)(2)(iii), require NPDES permittees, such as Claimants, to conduct a monitoring program. Moreover, the regulations at 40 CFR § 122.42(c) requires that the operator of a large or medium MS4 system to submit an annual report by the anniversary of the date of the issuance of the permit for such system. The regulations provide that the report shall include: “(1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and

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(d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation.”

There is no authority, however, in the CWA or its implementing regulations for the RWQCB to require the special studies set forth in the MRP. Such studies represented the intent of the RWQCB to shift its investigatory responsibility to the Claimants. Under *Department of Finance*, this shifting of responsibility (in this case, not even federally based but state law-based under Porter-Cologne) represented a state mandate. 1 Cal. 5th at 771.

With regard to the Sediment Toxicity Study (required by Section E.2 of the MRP), such study bore no basis to conditions found in the Santa Margarita watershed covered by the 2010 Permit. As set forth in the comments of the District on the draft 2010 Permit, the primary focus of sediment toxicity monitoring across the state is on perennial streams and estuaries that have continual flows, such as the California Delta. (*See* District comments and Attachment 4 thereto, contained in Section 7). By contrast, most receiving waters in the Santa Margarita watershed are ephemeral and dry most of the year. Using the RWQCB’s working definition of “MEP” (found in Attachment C, Definitions, in the 2010 Permit), where there is not commensurate value for the resources utilized, MEP is not being met. Additionally, the issue of sediment monitoring is of statewide interest, and should be conducted on a statewide basis by the SWRCB and/or the RWQCBs. By requiring Claimants to conduct such a study, the RWQCB was shifting its responsibility or the responsibility of the state to local agencies. Under *Department of Finance* and *Hayes*, such a shifting of a state obligation represents a state mandate.

With regard to the trash and litter study, the requirement in the MRP did not establish any link to discharges from the MS4, which is the purview of the 2010 Permit and the source of federal authority for this requirement. Instead, the study was linked only to the presence of trash and litter within the receiving waters of the watershed. Such trash and litter may have entered the receiving waters as the result of the wind, or may have been directly deposited there. The study does not, however, exclude such trash nor limit the study to trash contained in discharges from the MS4 into receiving waters. As such, it was a requirement not founded in federal law and is a mandate of the state.

With regard to the study of agricultural, federal and tribal inputs, the 2010 Permit Fact Sheet (without citing any federal justification) asserted that the purpose of the study was to determine whether there is information to back Claimants’ assertion in their Report of Waste Discharge that discharges from such lands were affecting water quality in Claimants’ MS4. 2010 Permit Fact Sheet, p. 197. Thus, the RWQCB was making Claimants sample MS4 discharges from *non-permittee* sources, a task that is nowhere required in the CWA or the implementing regulations. The CWA requires MS4 permittees to address pollutants that they discharge. Nothing in the CWA or the implementing regulations required MS4 dischargers to sample sources that are not within their jurisdictional control, which is the case for agricultural, federal and tribal lands waters that enter their jurisdictions.

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The RWQCB had the ability to require such sampling pursuant to the Porter-Cologne Act, and in the Fact Sheet, the RWQCB specifically cited Water Code § 13267 as additional, separate authority for the MRP. 2010 Permit Fact Sheet, p. 188. This statute authorizes the RWQCB to obtain technical reports from any dischargers. Such authority is, of course *state*, and not *federal*. The RWQCB has the authority under that section to require the agricultural, federal and tribal sources to conduct the sampling sought in the special study. It *chose* not to do so, but instead applied the requirement to Claimants. As such, it was a clear unfunded state mandate for which Claimants are entitled to a subvention of funds. *Hayes, supra*, 11 Cal.App.4th at 1593-94.

With regard to the MS4 and Receiving Water Maintenance Study, the rationale for this study – that the MS4 and the “receiving water” can be the same water body – was based on a 2010 Permit finding (Finding D.3.C.), which states:

Historic and current development makes use of natural drainage patterns and features as conveyances for runoff. Urban streams used in this manner are part of the municipalities’ MS4s regardless of whether they are natural, anthropogenic, or partially modified features. In these cases, the urban stream is both an MS4 and receiving water.

2010 Permit, p. 11. This reading, however, both ignores the plain definition of “MS4” in the federal regulations (which is included into the 2010 Permit in the Definitions in Attachment C) and is contradicted by the ruling of the United States Court of Appeals for the Ninth Circuit in *NRDC v. County of Los Angeles*, 673 F.3d 880 (9th Cir. 2011), *reversed in part sub nom., Los Angeles County Flood Control Dist. v. NRDC*, __ U.S. __, 133 S. Ct. 710 (2013).

The definition of “MS4” in the 2010 Permit, Attachment C, stated that it is:

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

2010 Permit, Attachment C, page C-8. This definition made clear that natural waterbodies cannot serve as “receiving waters” as they are not “man-made channels,” “storm drains” or other non-natural waterbodies. Also, such natural waterbodies are not “owned or operated” by a municipality, another qualification of an “MS4.”

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In *NRDC*, the Ninth Circuit held that “as a matter of law and fact,” the MS4 is “separate and distinct” from a navigable water of the United States, i.e., a receiving water. *NRDC*, 673 F.3d at 899. The court held that such MS4s are in fact “point sources” that *discharge* into receiving waters, which are defined in the 2010 Permit to be “waters of the United States.” 2010 Permit, Attachment C, p. C-10.

Since beneficial uses do not exist within MS4s (since they are not “waters of the United States”), there is no CWA rationale (if one ever existed, *see* discussion above regarding lack of authority for special studies) for this study. Claimants understand that the RWQCB could have required the study under the authority of the Porter-Cologne Act through Water Code § 13267, which as noted above, is cited as authority for the MRP in the Fact Sheet. However, this authority derives from state, and not federal, law.

The Permit also contained the requirement for conducting a fifth special study, a study into intermittent and ephemeral stream perennial conversions due to the flow of various flows into such streams. Permit Attachment E.6. After the effective date of the Permit, the Claimants negotiated with the RWQCB to replace the fifth special study and the remainder of the fourth study (for which a workplan had already been prepared) with a study of the impacts of the implementation of LID protections on downstream flows to Camp Pendleton and potential impacts on beneficial uses in downstream waters. This LID impacts study, as was true of all the other special studies, was not required by the CWA or its implementing regulations. The study had nothing to do with the requirements that the CWA establishes for MS4 permittees, *i.e.*, to control the discharge of pollutants from the MS4 to the MEP and to effectively prohibit the discharge of non-stormwater into the MS4 (*see* Section III above), but instead represented the RWQCB’s interest in having Claimants investigate flow volumes and impacts on beneficial uses from LID BMPs. Such investigations were not authorized under the CWA, but were a function of the RWQCB’s choice to require such work under state authority. As such, it was a state mandate. *Department of Finance*, 1 Cal. 5th 765.

3. Requirements of 2004 Permit

No special studies were required in the 2004 Permit.

4. Mandated Activities

These studies required Claimants to retain consultants to provide support in locating suitable waterbodies in which to conduct the studies, to develop and submit workplans, to conduct monitoring activities as specified in the MRP and the approved workplans, to conduct analysis of the monitoring results and to report the results of the analysis to the RWQCB in the final study reports. The County also incurred direct costs in association with this requirement. *See* Section 6 Declarations, Paragraph 5(1).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(1), the Claimants incurred increased costs to address the requirements of this mandate of \$27,728.71 in FY 2011-12 and \$103,789.60 in FY 2012-13.

M. Requirements that 2010 Permit Programs Ensure No Violations of Water Quality Standards and Other Requirements

Provisions in the 2010 Permit contained language that required Claimants, in developing and implementing programs required in Section F of the Permit, to meet various standards, including that of preventing discharges from the MS4 (or from certain projects) from “causing or contributing to a violation of water quality standards” or “preventing” illicit discharges or non-stormwater discharges. While the CWA’s implementing regulations require permittees, in some cases, to develop various programs designed to reduce pollutants in runoff, the 2010 Permit instead made specific reductions enforceable under the Permit, and appeared to subject Claimants to sanctions, including civil penalties and injunctive relief, for the programs’ failure to achieve the goals. As such, these requirements go beyond the MEP requirement in the CWA, as the 2010 Permit does not limit the efforts of Claimants to achieving such goals to the MEP.

1. Applicable Requirements in 2010 Permit

Several provisions in Section F of the 2010 Permit, set forth below, required Claimants to develop and implement programs that will, *inter alia*, prevent stormwater runoff discharges “from causing or contributing to “a violation of water quality standards” as well as to prevent illicit discharges into the MS4. These requirements apply to development planning programs, programs for discharges from municipal, commercial/industrial and residential facilities and areas; the retrofitting of existing development; and, the education component. Section F of the 2010 Permit contains numerous specific requirements, some of which are set forth above as separate unfunded state mandates. This section focuses on the requirement that Claimants, through the development and implementation of these programs, must meet the absolute requirement of ensuring no violation of water quality standards and the prevention of illicit discharges. The language at issue is highlighted in *italics*.

Section F

Each Copermittee must implement all requirements of section F of this Order no later than July 1, 2012, unless otherwise specified. Upon adoption of this Order and until an updated JRMP is developed and implemented or July 1, 2012, whichever occurs first, each Copermittee must at a minimum implement its JRMP document, as the document was developed and amended to comply with the requirements of Order No. R9-2004-001.

Each Copermittee must develop and implement an updated JRMP for its jurisdiction no later than July 1, 2012. Each updated JRMP must meet the requirements of section F of this Order, . . . *effectively prohibit non-storm water discharges, and prevent runoff discharges from the MS4 from causing or contributing to a violation of water quality standards. . . .*

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Section F.1

DEVELOPMENT PLANNING COMPONENT

Each Copermittee must implement a program which meets the requirements of this section and . . . (2) prevents Development Project discharges from the MS4 from causing or contributing to a violation of water quality standards; (3) prevents illicit discharges into the MS4; . . .

Section F.1.d.

**STANDARD STORM WATER MITIGATION PLANS (SSMPS) – APPROVAL PROCESS
CRITERIA AND REQUIREMENTS FOR PRIORITY DEVELOPMENT PROJECTS**

On or before June 30, 2012, the Copermittees must submit an updated SSMP, to the San Diego Water Board's Executive Officer for a 30 day public review and comment period. . . . *The SSMP must meet the requirements of section F.1.d of this Order to . . . (2) prevent Priority Development Project runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.* [footnote omitted]

Section F.2

CONSTRUCTION COMPONENT

Each Copermittee must implement a construction program which meets the requirements of this section, *prevents illicit discharges into the MS4, . . . and prevents construction site discharges from the MS4 from causing or contributing to a violation of water quality standards.*

Section F.3.a

MUNICIPAL

Each Copermittee must implement a municipal program for the Copermittee's areas and activities that meets the requirements of this section, *prevents illicit discharges into the MS4, . . . and prevents municipal discharges from the MS4 from causing or contributing to a violation of water quality standards.*

Section F.3.b

COMMERCIAL / INDUSTRIAL

Each Copermittee must implement a commercial / industrial program that meets the requirements of this section, *prevents illicit discharges into the MS4, . . . and prevents commercial / industrial discharges from the MS4 from causing or contributing to a violation of water quality standards.*

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Section F.3.c

RESIDENTIAL

Each Copermittee must implement a residential program that meets the requirements of this section, *prevents illicit discharges into the MS4, . . . and prevents residential discharges from the MS4 from causing or contributing to a violation of water quality standards.*

Section F.3.d

RETROFITTING EXISTING DEVELOPMENT

Each Copermittee must develop and implement a retrofitting program that meets the requirements of this section. The goals of the existing development retrofitting program are to . . . *prevent discharges from the MS4 from causing or contributing to a violation of water quality standards.* . . .

Section F.6

EDUCATION COMPONENT

Each Copermittee must implement education programs to . . . (2) to measurably change the behavior of target communities and thereby . . . *eliminate prohibited non-storm water discharges to MS4s and the environment.*

2. Requirements of Federal Law

The CWA requires that municipalities, in developing and implementing MS4 permits, ensure that they “effectively prohibit non-stormwater discharges into the storm sewers” and that discharges of pollutants from MS4s are reduced to the “maximum extent practicable.” 33 U.S.C. § 1342(p)(3)(B)(ii)-(iii). Thus, there are two separate requirements: the “effective prohibition” of non-stormwater discharges into the MS4 and the reduction of pollutants discharged from the MS4 to the MEP. The above-cited requirements of the 2010 Permit exceeded these statutory requirements. First, by requiring the “prevention” of non-stormwater discharges into the MS4, the Copermittees were required to go beyond merely “effectively prohibiting” such discharges. Second, with respect to ensuring the non-violation of water quality standards without regard to the MEP standard, the RWQCB was requiring a compliance standard not required of municipalities under federal law. *Defenders of Wildlife, supra*, 191 F.3d at 1165.

The MS4 regulations, not surprisingly, also do not require the absolute achievement of water quality standards as a matter of compliance with a particular MS4 permit. For example, with respect to development projects, 40 CFR § 122.26(d)(2)(iv)(A)(2) provides that permittees must develop and implement a management program which is to include a “description of planning procedures including a comprehensive master plan to develop, implement and enforce controls *to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plans shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is*

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completed.” (emphasis added.) Thus, regulatory focus is on reducing pollutants from MS4 discharges, not on ensuring that such discharges do not cause or contribute to a violation of water quality standards.

With regard to construction site impacts, the regulations (40 CFR § 122.26(d)(2)(iv)(D)) provide that the proposed management program include a “description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system.” Again, there is no requirement that program ensure that the discharges do not cause or contribute to an exceedance of a water quality standard, but to “reduce pollutants in storm water runoff from constructions to the municipal storm sewer system.”

With regard to municipal facilities, the regulations require, in 40 CFR § 122.26(d)(2)(iv)(A)(1), that the proposed management program include a “description of maintenance activities and a maintenance schedule for structural controls *to reduce pollutants* (including floatables) in discharges from municipal separate storm sewers.” (emphasis added.) Further, 40 CFR § 122.26(d)(2)(iv)(A)(3) provides that the proposed management program include a “description for operating and maintaining public streets, roads and highways and procedures *for reducing the impact on receiving waters* of discharges from municipal storm sewer systems, including pollutants discharged as a result of de-icing activities.” (emphasis added.) Finally, 40 CFR § 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include a “description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.” In all cases, the regulatory requirement is to *reduce* pollutants.

With regard to industrial/commercial facilities, 40 CFR § 122.26(d)(2)(iv)(C) provides that the proposed management program include a “description of a program to monitor and *control pollutants in storm water discharges* to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system.” (emphasis added.) This regulation, in addition to speaking of the “control of pollutants” but not to the point of guaranteeing no violation of a water quality standard, also addresses discharges *to MS4s* from industrial facilities, not discharges *from* such facilities, which is the requirement set forth in Section F.3 of the 2010 Permit.

With regard to residential areas, 40 CFR § 122.26(d)(2)(iv)(A) provides that the permittees are to develop a proposed management program which includes a “description of structural and source control measures *to reduce pollutants from runoff* from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and

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a proposed schedule for implementing such controls.” Again, the regulatory requirement is to reduce pollutants, not to ensure that the runoff does not cause or contribute to a violation of a water quality standard, to prevent illicit discharges into MS4 systems.

There are no federal requirements, either in the CWA or in the regulations, requiring retrofitting of existing development (*see* further discussion in Section VI.I, above). In the 2010 Permit Fact Sheet, the RWQCB relied on the regulatory provisions for municipal, commercial, industrial and residential developments, pertinent provisions of which are cited above and none of which require programs that ensure no causing or contributing to violations of water quality standards. 2010 Permit Fact Sheet, p. 155.

Finally, with regard to the education component of the 2010 Permit, federal regulatory authority is somewhat diffuse, but in no sense authorizes the requirements contained in Section F.6 of the 2010 Permit. In 40 CFR § 122.26(d)(2)(iv)(A)(6), the regulation provides that the proposed management program include a “description of a program *to reduce to the maximum extent practicable*, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as *educational activities*, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.” (emphasis added.) The proposed management program is required, pursuant to 40 CFR § 122.26(d)(2)(iv)(B)(6) to include a “description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.” This regulation is silent on attainment of water quality standards. Finally, 40 CFR § 122.26(d)(2)(iv)(D)(4) requires the proposed management program to include a “description of appropriate educational and training measures for construction site operators.” This regulation also does not require that discharges not cause or contribute to a violation of water quality standards.

Nothing in federal law or regulation authorized the RWQCB to require Claimants to develop or implement programs that will prevent non-stormwater discharges from entering the MS4 or control pollutants in runoff from the MS4 such that they can guarantee that such discharges will not cause or contribute to a violation of a water quality standard. The only apparent justification offered by the RWQCB for this requirement in the Fact Sheet is 40 CFR § 122.44(d)(1)(i), which requires NPDES permits to contain limitations which “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.” Under the holding in *Defenders of Wildlife, supra*, this regulation does not apply to MS4 permits, which operate under the MEP standard and not the requirement for strict compliance with water quality standards. Moreover, 40 CFR § 122.44 provides that the “following requirements” (including § 122.44(d)(1)(i)) apply only “when applicable.” Under *Defenders of Wildlife*, the requirements of 40 CFR § 122.44(d)(1)(i) are, as a matter of law, not applicable to an MS4 permit such as the 2010 Permit, and do not provide authority to the RWQCB. *See also* 40 CFR § 122.44(k)(2), which authorizes the use of BMPs to

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“control or abate the discharge of pollutants when . . . authorized under section 402(p) [the provision relating to MS4 permits] of the CWA for the control of storm water discharges.”

See also Tualatin River Keepers, et al. v. Oregon Department of Environmental Quality (2010) 235 Ore. App. 132, where the court considered whether wasteload allocations from adopted TMDLs were required to be enforced as strict numeric effluent limits within a municipal NPDES permit. Petitioners argued that the Oregon Department of Environmental Quality had erred by issuing a permit that did not “specify wasteload allocations in the form of numeric effluent limits.” *Id.* at 137. The Oregon court disagreed, finding that under the CWA, best management practices were considered to be a “type of effluent limitation,” and that such best management practices were authorized to be used pursuant to the CWA, section 33 U.S.C. § 1342(p) as a means of controlling “storm water discharges.” *Id.* at 141-42, citing 33 U.S.C. § 1342(p) and 40 CFR § 122.44(k)(2)-(3). This case demonstrates further that requirements for NPDES permits to meet water quality standards must, in the case of MS4 permits, be addressed through BMPs, not absolute adherence to such standards.

Under *Defenders of Wildlife*, the RWQCB could choose (here as an exercise of its state powers, *see NRDC, supra*) to impose the requirement to attain numeric effluent limits. But to do so would represent an affirmative *choice* by the RWQCB, not a requirement of federal law. As such, the cited requirements in the 2010 permit represent a state mandate as a new program and/or higher level of service. And, because the RWQCB made this choice, it was not imposing a federal mandate but rather a state mandate. *Department of Finance*, 1 Cal. 5th at 765.

Moreover, the requirements were themselves not practicable, as the power to actually reduce the discharge of pollutants in runoff to the level required by the 2010 Permit was, with the exception of municipal facilities, in the hands of and subject to the actions or inactions of third parties (developers, commercial/industrial site operators or residential homeowners). While the Claimants can implement programs to enforce requirements upon those third parties within their jurisdiction, Claimants cannot guarantee that each third party will comply with those programs and requirements. And, as set forth in the Uhley Declaration, the very variability of stormwater and urban runoff discharges makes it nearly impossible to assure compliance with all water quality standards at all times. Uhley Declaration, ¶¶11-12. The requirements thus exceeded the MEP standard, further evidence that they represented a state, and not federal, mandate.

3. Requirements of 2004 Permit

Nothing in the 2004 Permit required Claimants to ensure that discharges from construction, municipal, industrial, commercial or residential sources would not cause or contribute to a violation of water quality standards, or required the educational component of the 2004 Permit to so assure. For example, Section I of the 2004 Permit merely required that Copermittees implement the education component to “measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment.” The 2004 Permit required that BMPs for industrial/commercial facilities be implemented “to reduce the discharge of pollutants in runoff to the MEP.” 2004 Permit, Section H.2.c. The BMP programs for residential areas and municipal facilities were required to reduce pollutants “to the MEP.” 2004 Permit, Sections

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H.1c.(1); H.3.c. However, this requirement did not also mandate that permittees' programs attain this goal, or mentioned the violation of water quality standards.

In summary, the “guarantee” language found in the above-cited provisions in Section F of the 2010 Permit were new requirements of the RWQCB, constituting a new program and/or higher level of service.

4. Mandated Activities

The above-noted provisions of the 2010 Permit on their face require that Claimants develop and implement programs in Sections F in a manner that guarantees that those programs will prevent the discharge of pollutants at a level that could cause or contribute to a violation of any water quality standard as well as to prevent illicit discharges to the MS4. Such requirements went beyond federal law and regulation, including the MEP standard, and constituted a new and/or higher level of service. The costs of the design and implementation of such additional requirements were incorporated into programs required by the RWQCB in the 2010 Permit, including the NALs and SALs requirement, the priority development and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements and the water quality workplan requirements (described in Sections VI.B-D, F-J above). In addition, in the implementation of the Section F requirements, Claimants incurred additional direct costs. *See* Section 6 Declarations, Paragraph 5(m).

5. Actual Increased Costs of Mandate

As set forth in the Section 6 Declarations, Paragraph 5(m), the Claimants incurred as yet to be determined portions of the total increased shared costs for the above-described Permit requirements of \$18,696.29 in FY 2010-11 and \$271,720.61 in FY 2011-12, as well as additional direct costs of \$533,377.36 in FY 2010-11 and \$546,647.15 in FY 2011-12.

VII. STATEWIDE COST ESTIMATE

This Test Claim concerns a municipal stormwater permit applicable only to local agencies located in a portion of Riverside County within the jurisdiction of the RWQCB. Therefore, any statewide cost estimate must, by virtue of this limitation, apply only to costs incurred by such local agencies. The Claimants estimate that, for all requirements set forth in the 2010 Permit that are the subject of this Test Claim, increased costs in the amount of \$1,446,317.50 were expended in FY 2010-11 and \$2,438,936.90 in FY 2011-12, and an as yet undetermined share of \$18,696.29 in FY 2010-11 and \$271,720.61 in FY 2011-12. In addition, for the special studies requirement in the 2010 Permit (Section VI.L above), the statewide estimate of increased costs was \$103,789.60 in FY 2012-13. *See* Section 6 Claimant Declarations, Paragraphs 5(a)-(m).

VIII. FUNDING SOURCES

The Claimants are not aware of any designated State, federal or non-local agency funds that are or will be available to fund the mandated activities set forth in this Test Claim. As set forth in the declarations contained in Section 6, some Claimants have access to a Riverside County stormwater fund, to fuel tax and community services revenue, to lighting and maintenance revenues and/or development/business registration fees and the District has access to a Benefit Assessment for stormwater costs. However, as also set forth in the declarations, these funding sources do not cover the entire cost of compliance with the provisions set forth in this Test Claim. Additionally, Claimants are subject to the limitations of Proposition 26 (*see* discussion in Section V, above), which limits their ability to recover costs through fees.

IX. PRIOR MANDATE DETERMINATIONS

A. Los Angeles County Test Claim

In 2003 and 2007, the County of Los Angeles and 14 cities within the county (“Los Angeles County claimants”) submitted test claims 03-TC-04, 03-TC-19, 03-TC-19, 03-TC-20 and 03-TC-21. These test claims asserted that provisions of Los Angeles RWQCB Order No. 01-182 constituted unfunded state mandates. Order No. 01-182, like the 2010 Permit at issue in this Test Claim, was a renewal of an existing MS4 permit. The provisions challenged in these test claims concerned the requirement for the Los Angeles County claimants to install and maintain trash receptacles at transit stops and to inspect certain industrial, construction and commercial facilities for compliance with local and/or state storm water requirements.

The Commission, in a final decision issued on September 3, 2009, determined that the trash receptacle requirement was a reimbursable state mandate. *In re Test Claim on: Los Angeles Regional Quality Control Board Order No. 01-192*, Case Nos.: 03-TC-04, 03-TC-19, 03-TC-20, 03-TC-21. The Commission found that the portion of the test claims relating to the inspection requirement was a state mandate, but that the Los Angeles County claimants had fee authority sufficient to fund such inspections.

The Commission’s decision was challenged by the Department of Finance, the State Water Resources Control Board and the Los Angeles Regional Water Quality Control Board in an action filed in superior court. In September 2011, the Los Angeles County Superior Court set aside the Statement of Decision issued by the Commission, ruling that the appropriate test for determining whether a requirement in the MS4 permit was a federal or state mandate was whether the requirement met the MEP standard. The Superior Court’s ruling was affirmed by the California Court of Appeal on different grounds. In turn, the California Supreme Court reversed the Superior Court in *Department of Finance*, as discussed in Section V.B above. This case is presently before the Los Angeles County Superior Court.

B. San Diego County Test Claim

In 2007, the County of San Diego and 21 cities within the county (the “San Diego County claimants”) submitted test claim 07-TC-09. This test claim asserted that several provisions of San

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Diego RWQCB Order No. R9-2007-0001 constituted reimbursable state mandates. This order was the renewal of the existing MS4 permit for the San Diego County claimants.

On March 30, 2010, the Commission issued a final decision entitled *In re Test Claim on: San Diego Regional Water Quality Control Board Order No. R9-2007-0001*, Case No. 07-TC-09. In that decision, the Commission found the following requirements to be reimbursable state mandates:

1. A requirement to conduct and report on street sweeping activities;
2. A requirement conduct and report on storm sewer cleaning;
3. A requirement to conduct public education with respect to specific target communities and on specific topics;
4. A requirement to conduct mandatory watershed activities and collaborate in a Watershed Urban Management Program;
5. A requirement to conduct program effectiveness assessments;
6. A requirement to conduct long-term effectiveness assessments; and
7. A requirement for permittee collaboration.

The Commission also found requirements for hydromodification and low impact development programs to be state mandates, but determined that because local agencies could charge fees to pay for these programs, they were not reimbursable state mandates.

On January 5, 2012, the Commission's decision was overturned by the Sacramento County Superior Court and remanded to the Commission as the result of an action for writ of mandate brought by the State Department of Finance, the State Board and the San Diego RWQCB. The San Diego County claimants appealed to the California Court of Appeal, which has not yet heard argument on the appeal.

X. CONCLUSION

Important elements of the 2010 Permit represent significant and expensive mandates at a time when the budgets of all local agencies, especially those in Riverside County, have been dramatically impacted by the recession and many other demands. The Claimants believe that the mandates set forth in this Test Claim represent state mandates for which a subvention of funds is required pursuant to article XIII B, section 6 of the California Constitution. Claimants respectfully request that the Commission make such finding as to each of the programs and activities set forth herein.

SECTION 6

DECLARATIONS OF CLAIMANTS

In Support of Joint Test Claims of Riverside County Local Agencies Concerning San Diego RWQCB Order No. R9-2010-0016, San Diego Region Stormwater Permit – County of Riverside, 11-TC-03

DECLARATION OF STUART MCKIBBIN

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

I, Stuart McKibbin, hereby declare and state as follows:

1. I am Chief of the Watershed Protection Division of the Riverside County Flood Control and Water Conservation District (“District”). In that capacity, I shared responsibility for the compliance of the District with regard to the requirements of California Regional Water Quality Control Board, San Diego Region (“RWQCB”) Order No. R9-2010-0016 (the “Permit”), as they applied to the District.

2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 (“2004 Permit”) which was issued by the RWQCB in 2004 and as to which the District issued a notice of intent to comply, and am familiar with those requirements.

3. I also have an understanding of the District’s sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the District and other Copermittees under the Permit agreed to share certain costs of complying with the Permit.

4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit required the District to undertake the following new and/or upgraded activities and which are unique to local government entities and which were not required in the 2004 Permit:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater Discharges: Section B.2 of the Permit removed from the list of discharges exempted from the prohibition against discharges of non-stormwater to the municipal separate storm sewer system (“MS4”) the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. The removal of these three categories of exempted discharges required the creation of new public education and outreach materials, the potential need to amend ordinances to facilitate the required prohibition, tracking and response to reports of over-irrigation, enforcement and monitoring. It is my understanding and belief that using funds contributed from each Copermittee, including the District, through an Implementation Agreement, the District updated the Coordinated Monitoring Program (“CMP”), including procedures for response, monitoring and analysis relating to such flows and revised the Jurisdictional Runoff Management Plan (“JRMP”) template, training programs and community outreach programs to address these requirements. I am informed and believe that in Fiscal Year (“FY”) 2010-11, the District’s calculated share of such shared costs was \$1,714.18 and that during FY 2011-12, the District’s calculated share of that cost was \$1,461.61.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program (“MRP”) of the Permit, required Copermittees, including the District, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new follow-up investigations and source tracking activities triggered by each exceedance of dry weather non-stormwater action levels (“NALs”). These sections required the Copermittees, including the District, to perform field verification of major outfalls owned by the District, perform any required outfall sampling and analysis within the District’s jurisdiction that was not

otherwise performed by the District on behalf of the District, conduct and implement any follow-up source identification investigations for NAL exceedances at District outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations /enforcement, and where necessary, update District compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the District, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. I am informed and believe that in FY 2010-11, the District's calculated share of such shared costs was \$1,491.85 and that during FY 2011-12, the District's calculated share of that cost was \$3,226.58.

c. Stormwater Action Levels: Section D of the Permit required the District to conduct end-of-pipe assessments to determine stormwater action level ("SAL") compliance metrics at major outfalls during wet weather. Under the Permit, the District was required to perform field verification of major outfalls owned by the District, perform any required outfall sampling and analysis within the District's jurisdiction that is not otherwise performed by the District on behalf of the District, and where necessary, update the District's compliance programs to address SAL exceedances. I am informed and believe that, using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and

analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the District, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. I am informed and believe that in FY 2010-11, the District's calculated share of such shared costs was \$1,491.85 and that during FY 2011-12, the District's calculated share of that cost was \$3,226.58.

d. Priority Development Projects ("PDPs") and Hydromodification Requirements:

Section F.1.d of the Permit required Copermittees, including the District, to develop and implement low impact development ("LID") principles and structural features into District-owned PDPs, which beginning on July 1, 2012, included all District-owned projects that resulted in the disturbance of one acre or more of land, as well as new public development projects that created 10,000 square feet or more of impervious surface. The Permit further required the District to review each of its PDPs to implement LID best management practices ("BMPs"), including requiring specific types of LID Principles and LID BMPs or to make a finding of technical infeasibility, incorporate formalized consideration of LID BMPs into the plan review process and review its local codes, policies and ordinances for barriers to LID implementation and take actions to remove such barriers. Additionally, the District was required to develop an LID waiver program for incorporation into the Standard Stormwater Mitigation Plan ("SSMP"), to allow a District-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit required the Copermittees, including the District, to develop and implement a Hydromodification Management Plan ("HMP") to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees,

including the District, were required to hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibited Copermittees, including the District, from using non-natural materials, including concrete, riprap or gabions, to reinforce stream channels as mitigation for a PDP. I am informed and believe that, using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District retained a consultant to perform the studies and analysis and a revised Standard Stormwater Mitigation Plan, an HMP with publically available hydromodification modelling software and a BMP Design Manual, developed and provided training for the Copermittees and the development community and revised the JRMP template. I am informed and believe that in FY 2010-11, the District's calculated share of such shared costs was \$4,175.47 and that during FY 2011-12, the District's calculated share of that cost was \$23,257.36. I am further informed and believe that the District incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit required the Copermittees to develop and maintain a watershed-based database to track all projects with a final approved SSMP and structural post-construction BMPs, including those PDPs dating back to July 2005, and to inspect such projects on a routine basis. This program required the Copermittees to develop and populate a database of information for each SSMP project built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct

inspections. I am informed and believe that, using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District developed a template BMP tracking spreadsheet and updated the JRMP template to reflect these requirements. I am informed and believe that in FY 2010-11, the District's calculated share of such shared costs was \$329.90 and that during FY 2011-12, the District's calculated share of that cost was \$268.54.

f. Construction Site Requirements: Section F.2.d of the Permit required Copermittees, including the District, to implement active/passive sediment treatment ("AST") at District-owned construction sites or portions thereof that were determined to be an "exceptional threat" to water quality. Section F.2.e of the Permit required District inspectors at construction sites to review site monitoring data results, if the site monitored its runoff. These requirements would add costs to require AST to every District-owned construction site determined to pose such a threat to water quality and for enhanced inspection training. I am informed and believe that the District, using funds contributed from each Copermittee including the District through the Implementation Agreement, conducted training of Copermittee staff and updated the JRMP template with regard to such requirements. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$202.72 and that during FY 2011-12, the District's calculated share of that cost was \$245.25. I am further informed and believe that the District may have incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit required the Copermittees, including the District, to develop and implement, or require implementation of, BMPs for erosion and sediment control on District-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road

maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. I am informed and believe that the District, using funds contributed from each Copermittee including the District through the Implementation Agreement, revised the JRMP template and the SSMP to incorporate road maintenance provisions. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$126.30 and that during FY 2011-12, the District's calculated share of that cost was \$186.69. I am further informed and believe that the District incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit required the Copermittees, as part of their inspection of commercial/industrial facilities, to review facility monitoring data if the facility monitored its runoff. This provision required inspectors at commercial/industrial sites to spend greater time in the inspection or in analyzing data thereafter. Additionally, inspectors were required to be further trained so as to be able to read and interpret monitoring and sampling analysis data. I am informed and believe that the District, using funds contributed from each Copermittee including the District through the Implementation Agreement, provided training updates and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$125.30 and that during FY 2011-12, the District's calculated share of that cost was \$230.87.

i. Retrofitting of Existing Development: Section F.3.d of the Permit required the Copermittees to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. I am informed and believe and therefore state that using funds contributed from the Copermittees, including the District, through the Implementation Agreement, the District retained a consultant to perform necessary studies and develop a Retrofit Study, and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$192.91 and that during FY 2011-12, the District's calculated share of that cost was \$43,564.03. I am further informed and believe that the District may have incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

j. Watershed Water Quality Workplan ("Watershed Workplan"): Section G of the Permit required the Copermittees, including the District, to develop and annually update a Watershed Workplan. This required the Copermittees, including the District, to: characterize watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to Clean Water Act section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within

the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and, as part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District hired a consultant to gather and analyze historic water quality monitoring data, develop draft and submit the Watershed Workplan and revise the JRMP template. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$1,287.66 and that during FY 2011-12, the District's calculated share of that cost was \$4,798.33.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit required, among other items, that the Copermittees, including the District, submit a JRMP report each year, beginning on October 31, 2013. The JRMP

requirements included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Copermittees, including the District, were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, the Copermittees, including the District, were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. I am informed and believe that using funds contributed from each Copermittee, including the District, through the Implementation Agreement, the District developed revisions to the JRMP and Annual Report templates to incorporate these requirements. I am informed and believe that in FY 2010-11, the District's calculated share of such costs was \$633.25 and that

during FY 2011-12, the District's calculated share of that cost was \$1,058.79. I am further informed and believe that the District incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

l. Special Studies: The Monitoring and Reporting Program of the Permit required Copermittees, including the District, to conduct special studies, including (1) a sediment toxicity study, (2) a trash and litter study, (3) a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, (4) a MS4 and receiving water maintenance study and (5) an intermittent and ephemeral stream perennial conversion study. I am informed and believe that the District, using funds contributed by the Copermittees, including the District, conducted the first three studies, performed a work plan for the fourth study and then performed one additional study on the impacts of LID implementation, in return for not doing the remainder of the fourth study and the fifth study. I am informed and believe that using funds from each Copermittee, including the District, through the Implementation Agreement, the District retained a consultant to develop and perform these studies and to submit them to the Regional Board. I am informed and believe that in FY 2011-12, the District's calculated share of such costs was \$7,047.68 and that during FY 2012-13, the District's calculated share of such costs was \$26,399.42.

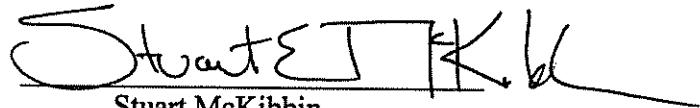
m. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit required Copermittees, including the District, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges did not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of

the Permit required Copermittees, including the District, to develop and implement a retrofit program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the maximum extent practicable (“MEP”). Section F.6 of the Permit required Copermittees, including the District, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. I am informed and believe and therefore state that these requirements were incorporated into the design and implementation of other programs required by the Permit and set forth above, including the NALs and SALs requirement, the priority development project and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements, and the water quality workplan requirements. I am informed and believe and therefore state that in total, the District incurred a yet to be determined share of calculated costs of \$6,139.20 in FY 2010-11 and \$78,741.68 in FY 2011-12 with respect to these requirements. I am further informed and believe that the District incurred additional direct costs during FY 2010-11 and FY 2011-12 to address these requirements but that the District cannot at this time quantify those costs.

6. I am informed and believe that there are no dedicated state or federal funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. In 1991, the District established the Santa Margarita Watershed Benefit Assessment to fund its MS4 compliance activities. The Benefit Assessment paid for aspects of the District’s compliance with the Permit. There was no increase in the fees generated by the Benefit Assessment over the course of the Permit. I am not aware of any other fee or tax

that the District would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other source to pay for these new programs and activities is the District's general fund.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed April 27 2017 at Riverside, California.


Stuart McKibbin

DECLARATION OF DAVID GARCIA

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

I, DAVID GARCIA, hereby declare and state as follows:

1. I am an Engineering Project Manager within the Watershed Protection Division of the Riverside County Flood Control and Water Conservation District (“District”). My job responsibilities include serving as the supervisor for the Santa Margarita River watershed with respect to municipal stormwater permitting issues. In that capacity for the District, I have first-hand and personal knowledge of monies spent by the District on behalf of itself and on behalf of permittees to address requirements under California Regional Water Quality Control Board, San Diego Region, Order No. R9-2010-0016 (the “Permit”).

2. I have knowledge of sections of the Permit as set forth in the Section 5 Narrative Statement and the Section 6 Declarations of this Test Claim and how they are implemented by the permittees subject to the Permit (the “Permittees”), who are also the claimants under this Test Claim (“Claimants”).

3. I have knowledge of financial records showing expenditures by the Claimants and have caused spreadsheets to be created reflecting those expenditures, which have been provided to Claimant representatives.

4. I make this declaration based on my own personal knowledge, except for matters set forth herein on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

5. The District was designated as Principal Permittee under the Permit, and in that role, coordinated joint responses to the Permit requirements set forth in this Test Claim, which

responses were paid for as shared costs by the Claimants under the Implementation Agreement entered into by and between the Permittees.

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

Executed April ~~27~~, 2017 at Riverside, California.



David Garcia

DECLARATION OF STEVEN HORN

COUNTY OF RIVERSIDE

I, Steven Horn, hereby declare and state as follows:

1. I am a Principal Management Analyst and NPDES Stormwater Program Administrator in the Executive Office of the County of Riverside ("County"). In that capacity, I shared responsibility for the compliance of the County with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they applied to the County.
2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB in 2004 and as to which the County issued a notice of intent to comply, and am familiar with those requirements.
3. I also have an understanding of the County's sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the County and other Copermittees under the Permit agreed to share certain costs of complying with the Permit.
4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.
5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit required the County to undertake the following new and/or upgraded activities and which are unique to local government entities and which were not required in the 2004 Permit:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater

Discharges: Section B.2 of the Permit removed from the list of discharges exempted from the prohibition against discharges of non-stormwater to the municipal separate storm sewer system ("MS4") the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. The removal of these three categories of exempted discharges required the creation of new public education and outreach materials, potentially the need for amended ordinances to facilitate the required prohibition, tracking and response to reports of over-irrigation, enforcement and monitoring. It is my understanding and belief that using funds contributed from each Copermittee, including the County, through an Implementation Agreement, the Riverside County Flood Control and Water Conservation District ("District") updated the Coordinated Monitoring Program ("CMP"), including procedures for response, monitoring and analysis relating to such flows and revised the Jurisdictional Runoff Management Plan ("JRMP") template, training programs and community outreach programs to address these requirements. I am informed and believe that in Fiscal Year ("FY") 2010-11, the County's calculated share of such shared costs was \$599.28 and that during FY 2011-12, the County's calculated share of that cost was \$673.88. I am further informed and believe that the County incurred additional direct costs of approximately \$76,776 in FY 2010-11 and \$79,332 in FY 2011-12 to address these requirements.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program ("MRP") of the Permit, required Copermittees, including the County, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry

weather non-stormwater action levels ("NALs"). These sections required the Copermittees, including the County, to perform field verification of major outfalls owned by the County, perform any required outfall sampling and analysis within the County's jurisdiction that was not otherwise performed by the District on behalf of the County, conduct and implement any follow-up source identification investigations for NAL exceedances at County outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations / enforcement, and where necessary, update County compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the County, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. I am informed and believe that in FY 2010-11, the County's calculated share of such shared costs was \$508.39 and that during FY 2011-12, the County's calculated share of that cost was \$1,489.01. I am further informed and believe that the County incurred additional direct costs of approximately \$30,000 in FY 2010-11 and \$30,000 in FY 2011-12 to address these requirements.

c. Stormwater Action Levels: Section D of the Permit required the County to conduct end-of-pipe assessments to determine stormwater action level ("SAL") compliance metrics at major outfalls during wet weather. Under the Permit, the County was required to

perform field verification of major outfalls owned by the County, perform any required outfall sampling and analysis within the County's jurisdiction that is not otherwise performed by the District on behalf of the County, and where necessary, update the County's compliance programs to address SAL exceedances. I am informed and believe that, using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the County, utilize analysis and source identification results in developing annual updates the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. I am informed and believe that in FY 2010-11, the County's calculated share of such shared costs was \$508.39 and that during FY 2011-12, the County's calculated share of that cost was \$1,489.01. I am further informed and believe that the County incurred additional direct costs of approximately \$10,000 in FY 2010-11 and \$10,000 in FY 2011-12 to address these requirements.

d. Priority Development Projects ("PDPs") and Hydromodification Requirements:

Section F.1.d of the Permit required Copermittees, including the County, to develop and implement low impact development ("LID") principles and structural features into County-owned PDPs, which beginning on July 1, 2012, included all County-owned projects that resulted in the disturbance of one acre or more of land, as well as new public development projects that created 10,000 square feet or more of impervious surface. The Permit further required the County to review each of its PDPs to implement LID BMPs, including requiring specific types of LID Principles and LID BMPs or to make a finding of technical infeasibility, incorporate formalized consideration of LID BMPs into the plan review process and review its local codes,

policies and ordinances for barriers to LID implementation and take actions to remove such barriers. Additionally, the County was required to develop an LID waiver program for incorporation into the Standard Stormwater Mitigation Plan ("SSMP"), to allow a County-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit required the Copermittees, including the County, to develop and implement a Hydromodification Management Plan ("HMP") to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees, including the County, were required to hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibited Copermittees, including the County, from using non-natural materials, including concrete, riprap or gabions, to reinforce stream channels as mitigation for a PDP. I am informed and believe that, using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District retained a consultant to perform the studies and analysis and a revised Standard Stormwater Mitigation Plan, an HMP with publically available hydromodification modelling software and a BMP Design Manual, developed and provided training for the Copermittees and the development community and revised the JRMP template. I am informed and believe that in FY 2010-11, the County's calculated share of such shared costs was \$1,459.76 and that during FY 2011-12, the County's calculated share of that cost was \$10,722.87. I am further informed and believe that the County incurred additional direct costs of approximately \$21,000 in FY 2010-11 and \$579,957 in FY 2011-12 to address these requirements.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit required the County to develop and maintain a watershed-based database to track all projects with a final approved SSMP and structural post-construction BMPs, including those PDPs dating back to July 2005, and to inspect such projects on a routine basis. This program required the County to develop and populate a database of information for each SSMP project built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct inspections. I am informed and believe that, using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District developed a template BMP tracking spreadsheet and updated the JRMP template to reflect these requirements. I am informed and believe that in FY 2010-11, the County's calculated share of such shared costs was \$115.33 and that during FY 2011-12, the County's calculated share of that cost was \$123.81. I am further informed and believe that the County incurred additional direct costs of approximately \$52,930 in FY 2010-11 and \$52,930 in FY 2011-12 to address these requirements.

f. Construction Site Requirements: Section F.2.d of the Permit required Copermittees, including the County, to implement active/passive sediment treatment ("AST") at County- owned construction sites or portions thereof that were determined to be an "exceptional threat" to water quality. Section F.2.e of the Permit required County inspectors at construction sites to review site monitoring data results, if the site monitored its runoff. These requirements would add costs to require AST to every County-owned construction site determined to pose such a threat to water quality and for enhanced inspection training. I am informed and believe

that the District, using funds contributed from each Copermittee including the County through the Implementation Agreement, conducted training of Copermittee staff and updated the JRMP template with regard to such requirements. I am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$70.87 and that during FY 2011-12, the County's calculated share of that cost was \$113.07. I am further informed and believe that the County incurred additional direct costs of approximately \$720 in FY 2010-11 and \$720 in FY 2011-12 to address these requirements.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit required the Copermittees, including the County, to develop and implement, or require implementation of, BMPs for erosion and sediment control on County-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. I am informed and believe that the District, using funds contributed from each Copermittee including the County through the Implementation Agreement, revised the JRMP template and the SSMP to incorporate road maintenance provisions. I am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$43.81 and that during FY 2011-12, the County's calculated share of that cost was \$86.07. I am further informed and believe that the County incurred additional direct costs of approximately \$457,241 in FY 2010-11 and \$584,132 in FY 2011-12 to address these requirements.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit required the County, as part of its inspection of commercial/industrial facilities, to review facility monitoring data if the facility monitored its runoff. This provision required inspectors at commercial/industrial sites to spend greater time in the inspection or in analyzing data thereafter. Additionally, inspectors were required to be further trained so as to be able to read and interpret monitoring and sampling analysis data. I am informed and believe that the District, using funds contributed from each Copermittee including the County through the Implementation Agreement, provided training updates and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$43.81 and that during FY 2011-12, the County's calculated share of that cost was \$106.44. I am further informed and believe that the County incurred additional direct costs of approximately \$11,535 in FY 2010-11 and \$11,535 in FY 2011-12 to address these requirements.

i. Retrofitting of Existing Development: Section F.3.d of the Permit required the Copermittees, including the County, to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. I am informed and believe and therefore state that using funds contributed from the Copermittees, including the County, through the Implementation Agreement, the District retained a consultant to perform necessary studies and develop a Retrofit Study, and revised the JRMP template to incorporate these requirements. I

am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$67.44 and that during FY 2011-12, the County's calculated share of that cost was \$20,085.31. I am further informed and believe that the County incurred additional direct costs of approximately \$600 in FY 2010-11 and \$600 in FY 2011-12 to address these requirements.

j. Watershed Water Quality Workplan ("Watershed Workplan"): Section G of the Permit required the Copermittees, including the County, to develop and annually update a Watershed Workplan. This required the Copermittees, including the County, to: characterize watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to Clean Water Act section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public

participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and, as part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District hired a consultant to gather and analyze historic water quality monitoring data, develop draft and submit the Watershed Workplan and revise the JRMP template. I am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$450.17 and that during FY 2011-12, the County's calculated share of that cost was \$2,212.28. I am further informed and believe that the County incurred additional direct costs of approximately \$600 in FY 2010-11 and \$600 in FY 2011-12 to address these requirements.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit required, among other items, that the Copermittees, including the County, submit a Jurisdictional Runoff Management Program ("JRMP") report each year, beginning on October 31, 2013. The JRMP requirements included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and

types of enforcement actions; and, a description of each high-level enforcement action.

Additionally, Copermittees, including the County, were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, the Copermittees, including the County, were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. I am informed and believe that using funds contributed from each Copermittee, including the County, through the Implementation Agreement, the District developed revisions to the JRMP and Annual Report templates to incorporate these requirements. I am informed and believe that in FY 2010-11, the County's calculated share of such costs was \$221.39 and that during FY 2011-12, the County's calculated share of that cost was \$488.16. I am further informed and believe that the County incurred additional direct costs of approximately \$124,000 in FY 2010-11 and \$124,000 in FY 2011-12 to address these requirements.

i. Special Studies: The Monitoring and Reporting Program of the Permit required Copermittees, including the County, to conduct special studies, including (1) a sediment County study, (2) a trash and litter study, (3) a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, (4) a MS4 and receiving water maintenance study and (5) an intermittent and ephemeral stream perennial conversion study. I am informed and believe that the District,

using funds contributed by the Copermittees, including the County, conducted the first three studies, performed a work plan for the fourth study and then performed one additional study on LID implementation, in return for not doing the remainder of the fourth study and the fifth study. I am informed and believe that using funds from each Copermittee, including the County, through the Implementation Agreement, the District retained a consultant to develop and perform these studies and to submit them to the Regional Board. I am informed and believe that in Fiscal Year ("FY") 2011-12, the County's calculated share of such costs was \$3,249.35 and that during FY 2012-13, the County's calculated share of that cost was \$13,556.62 plus direct costs of approximately \$3,000 for FY 2010-11 and approximately \$3,000 for FY 2011-12.

m. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit required Copermittees, including the County, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges did not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of the Permit required Copermittees, including the County, to develop and implement a retrofitting program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the MEP. Section F.6 of the Permit required Copermittees, including the County, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. I am informed and believe and therefore state that these requirements were incorporated into the design and implementation of other programs required

by the Permit and set forth above, including the NALs and SALs requirement, the priority development project and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements, and the water quality workplan requirements. I am informed and believe and therefore state that in total, the County incurred an as yet undetermined share of calculated costs of \$3,152.63 in FY 2010-11 and \$36,304.05 in FY 2011-12 plus direct costs of \$512,865 in FY 2010-11 and \$519,629 in FY 2011-12 in response to these requirements.

6. I am informed and believe that there are no dedicated state, federal or regional funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. I am informed and believe that certain of the programs set forth above are funded in part by the proceeds of fuel taxes collected in the County and by community services association revenue. I am further informed and believe that such proceeds are not sufficient to fund all programs set forth in this declaration. I am not aware of any other fee or tax that the County would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other available source to pay for these new programs and activities is the County's general fund.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed April²⁴, 2017 at Riverside, California.


Steven Horn

DECLARATION OF BOB MOEHLING

CITY OF MURRIETA

I, Bob Moehling, hereby declare and state as follows:

1. I am City Engineer for the City of Murrieta ("City"). In that capacity, I shared responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.

2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB in 2004 and as to which the City issued a notice of intent to comply, and am familiar with those requirements.

3. I also have an understanding of the City's sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the City and other Copermittees under the Permit agreed to share certain costs of complying with the Permit.

4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit required the City to undertake the following new and/or upgraded activities and which are unique to local government entities and which were not required in the 2004 Permit:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater

Discharges: Section B.2 of the Permit removed from the list of discharges exempted from the prohibition against discharges of non-stormwater to the municipal separate storm sewer system (“MS4”) the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. The removal of these three categories of exempted discharges required the creation of new public education and outreach materials, potentially the need for amended ordinances to facilitate the required prohibition, tracking and response to reports of over-irrigation, enforcement and monitoring. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through an Implementation Agreement, the Riverside County Flood Control and Water Conservation District (“District”) updated the Coordinated Monitoring Program (“CMP”), including procedures for response, monitoring and analysis relating to such flows and revised the Jurisdictional Runoff Management Plan (“JRMP”) template, training programs and community outreach programs to address these requirements. I am informed and believe that in Fiscal Year (“FY”) 2010-11, the City’s calculated share of such shared costs was \$839.98 and that during FY 2011-12, the City’s calculated share of that cost was \$1,262.12. I am further informed and believe that the City incurred estimated additional direct costs of \$6,693.92 in FY 2010-11 and \$6,693.92 in FY 2011-12 to address these requirements.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program (“MRP”) of the Permit, required Copermittees, including the City, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry

weather non-stormwater action levels (“NALs”). These sections required the Copermittees, including the City, to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City’s jurisdiction that was not otherwise performed by the District on behalf of the City, conduct and implement any follow-up source identification investigations for NAL exceedances at City outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations / enforcement, and where necessary, update City compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. I am informed and believe that in FY 2010-11, the City’s calculated share of such shared costs was \$712.58 and that during FY 2011-12, the City’s calculated share of that cost was \$2,788.77. I am further informed and believe that the City incurred estimated additional direct costs of \$2008.18 in FY 2010-11 and \$2008.18 in FY 2011-12 to address these requirements.

c. Stormwater Action Levels: Section D of the Permit required the City to conduct end-of-pipe assessments to determine stormwater action level (“SAL”) compliance metrics at major outfalls during wet weather. Under the Permit, the City was required to perform field verification of major outfalls owned by the City, perform any required outfall sampling and

analysis within the City's jurisdiction that is not otherwise performed by the District on behalf of the City, and where necessary, update the City's compliance programs to address SAL exceedances. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$712.58 and that during FY 2011-12, the City's calculated share of that cost was \$2,788.77. I am further informed and believe that the City incurred estimated additional direct costs of \$2008.18 in FY 2010-11 and \$2008.18 in FY 2011-12 to address these requirements.

d. Priority Development Projects ("PDPs") and Hydromodification Requirements:

Section F.1.d of the Permit required Copermittees, including the City, to develop and implement low impact development ("LID") principles and structural features into City-owned PDPs, which beginning on July 1, 2012, included all City-owned projects that resulted in the disturbance of one acre or more of land, as well as new public development projects that created 10,000 square feet or more of impervious surface. The Permit further required the City to review each of its PDPs to implement LID BMPs, including requiring specific types of LID Principles and LID BMPs or to make a finding of technical infeasibility, incorporate formalized consideration of LID BMPs into the plan review process and review its local codes, policies and ordinances for barriers to LID implementation and take actions to remove such barriers. Additionally, the City

was required to develop an LID waiver program for incorporation into the Standard Stormwater Mitigation Plan (“SSMP”), to allow a City-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit required the Copermittees, including the City, to develop and implement a Hydromodification Management Plan (“HMP”) to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees, including the City, were required to hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibited Copermittees, including the City, from using non-natural materials, including concrete, riprap or gabions, to reinforce stream channels as mitigation for a PDP. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to perform the studies and analysis and a revised Standard Stormwater Mitigation Plan, an HMP with publically available hydromodification modelling software and a BMP Design Manual, developed and provided training for the Copermittees and the development community and revised the JRMP template. I am informed and believe that in FY 2010-11, the City’s calculated share of such shared costs was \$2,046.07 and that during FY 2011-12, the City’s calculated share of that cost was \$20,082.94. I am further informed and believe that the City incurred estimated additional direct costs of \$4,016.35 in FY 2010-11 and \$4,016.35 in FY 2011-12 to address these requirements.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit required the City to develop and maintain a watershed-based database to track all projects with a final approved SSMP and structural post-construction BMPs, including those PDPs dating back to

July 2005, and to inspect such projects on a routine basis. This program required the City to develop and populate a database of information for each SSMP project built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct inspections. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed a template BMP tracking spreadsheet and updated the JRMP template to reflect these requirements. I am informed and believe that in Fiscal Year (“FY”) 2010-11, the City’s calculated share of such shared costs was \$161.66 and that during FY 2011-12, the City’s calculated share of that cost was \$231.89. I am further informed and believe that the City incurred estimated additional direct costs of \$2,677.57 in FY 2010-11 and \$2,677.57 in FY 2011-12 to address these requirements.

f. Construction Site Requirements: Section F.2.d of the Permit required Copermittees, including the City, to implement active/passive sediment treatment (“AST”) at City- owned construction sites or portions thereof that were determined to be an “exceptional threat” to water quality. Section F.2.e of the Permit required City inspectors at construction sites to review site monitoring data results, if the site monitored its runoff. These requirements would add costs to require AST to every City-owned construction site determined to pose such a threat to water quality and for enhanced inspection training. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, conducted training of Copermittee staff and updated the JRMP template with regard to such requirements. I am informed and believe that in FY 2010-11, the

City's calculated share of such costs was \$99.34 and that during FY 2011-12, the City's calculated share of that cost was \$211.77. I am further informed and believe that the City incurred estimated additional direct costs of \$1,338.78 in FY 2010-11 and \$1,338.78 in FY 2011-12 to address these requirements.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit required the Copermittees, including the City, to develop and implement, or require implementation of, BMPs for erosion and sediment control on City-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, revised the JRMP template and the SSMP to incorporate road maintenance provisions. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$61.40 and that during FY 2011-12, the City's calculated share of that cost was \$161.21. I am further informed and believe that the City incurred estimated additional direct costs of \$1,338.78 in FY 2010-11 and \$1,338.78 in FY 2011-12 to address these requirements.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit required the City, as part of its inspection of commercial/industrial facilities, to review facility monitoring data if the facility monitored its runoff. This provision required inspectors at commercial/industrial sites to spend greater time in the inspection or in analyzing data thereafter.

Additionally, inspectors were required to be further trained so as to be able to read and interpret monitoring and sampling analysis data. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, provided training updates and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$61.40 and that during FY 2011-12, the City's calculated share of that cost was \$199.36. I am further informed and believe that the City incurred estimated additional direct costs of \$2,677.57 in FY 2010-11 and \$2,677.57 in FY 2011-12 to address these requirements.

i. Retrofitting of Existing Development: Section F.3.d of the Permit required the Copermittees, including the City, to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. I am informed and believe and therefore state that using funds contributed from the Copermittees, including the City, through the Implementation Agreement, the District retained a consultant to perform necessary studies and develop a Retrofit Study, and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$94.53 and that during FY 2011-12, the City's calculated share of that cost was \$37,617.93.

j. Watershed Water Quality Workplan ("Watershed Workplan"): Section G of the Permit required the Copermittees, including the City, to develop and annually update a Watershed Workplan. This required the Copermittees, including the City, to: characterize

watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to Clean Water Act section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and, as part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District hired a consultant to gather and analyze historic water quality monitoring data, develop draft and submit the Watershed Workplan and revise the JRMP template. I am informed

and believe that in FY 2010-11, the City's calculated share of such costs was \$630.98 and that during FY 2011-12, the City's calculated share of that cost was \$4,143.40.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit required, among other items, that the Copermittees, including the City, submit a Jurisdictional Runoff Management Program ("JRMP") report each year, beginning on October 31, 2013. The JRMP requirements included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Copermittees, including the City, were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, the Copermittees, including the City, were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from

hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed revisions to the JRMP and Annual Report templates to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$310.31 and that during FY 2011-12, the City's calculated share of that cost was \$914.27. I am further informed and believe that the City incurred estimated additional direct costs of \$2,677.57 in FY 2010-11 and \$2,677.57 in FY 2011-12 to address these requirements.

l. Special Studies: The Monitoring and Reporting Program of the Permit required Copermittees, including the City, to conduct special studies, including (1) a sediment toxicity study, (2) a trash and litter study, (3) a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, (4) a MS4 and receiving water maintenance study and (5) an intermittent and ephemeral stream perennial conversion study. I am informed and believe that the District, using funds contributed by the Copermittees, including the City, conducted the first three studies, performed a work plan for the fourth study and then performed one additional study on LID implementation, in return for not doing the remainder of the fourth study and the fifth study. I am informed and believe that using funds from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop and perform these studies and to submit them to the Regional Board. I am informed and believe that in Fiscal Year ("FY") 2011-12, the City's calculated share of such costs was \$6,085.74 and that during FY 2012-13, the City's calculated share of that cost was \$26,032.50.

m. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit

required Copermittees, including the City, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges did not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of the Permit required Copermittees, including the City, to develop and implement a retrofitting program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the MEP. Section F.6 of the Permit required Copermittees, including the City, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. I am informed and believe and therefore state that these requirements were incorporated into the design and implementation of other programs required by the Permit and set forth above, including the NALs and SALs requirement, the priority development project and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements, and the water quality workplan requirements. I am informed and believe and therefore state that in total, the City incurred a yet to be determined share of calculated costs of \$4,418.08 in FY 2010-11 and \$67,994.14 in FY 2011-12 plus estimated direct costs of \$10,710.27 in FY 20-10-11 and \$10,710.27 in FY 2011-12 in response to these requirements.

6. I am informed and believe that there are no dedicated state or federal funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. The City has access to funding obtained through County Service Area

152, which funds, in part, the obligations of the City under the Permit. The City also can collect some inspection fees during the new development process, but not for existing development. I am informed and believe that neither of these funding sources is sufficient to cover the cost of the programs and activities set forth in this Declaration. I am not aware of any other fee or tax that the City would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other source to pay for these new programs and activities is the City's general fund.

I declare under penalty of perjury that foregoing is true and correct. Executed April 27, 2017 at Murrieta, California.


Bob Moehling

DECLARATION OF PATRICK A. THOMAS

CITY OF TEMECULA

I, Patrick A. Thomas, hereby declare and state as follows:

1. I am the Director of Public Works/City Engineer for the City of Temecula ("City"). In that capacity, I share responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.

2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB in 2004 and as to which the City issued a notice of intent to comply, and am familiar with those requirements.

3. I also have an understanding of the City's sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the City and other Copermittees under the Permit agreed to share certain costs of complying with the Permit.

4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit required the City to undertake the following new and/or upgraded activities and which are unique to local government entities and which were not required in the 2004 Permit:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater Discharges: Section B.2 of the Permit removed from the list of discharges exempted from the prohibition against discharges of non-stormwater to the municipal separate storm sewer system (“MS4”) the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. The removal of these three categories of exempted discharges required the creation of new public education and outreach materials, potentially the need for amended ordinances to facilitate the required prohibition, tracking and response to reports of over-irrigation, enforcement and monitoring. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through an Implementation Agreement, the Riverside County Flood Control and Water Conservation District (“District”) updated the Coordinated Monitoring Program (“CMP”), including procedures for response, monitoring and analysis relating to such flows and revised the Jurisdictional Runoff Management Plan (“JRMP”) template, training programs and community outreach programs to address these requirements. I am informed and believe that in Fiscal Year (“FY”) 2010-11, the City’s calculated share of such shared costs was \$968.58 and that during FY 2011-12, the City’s calculated share of that cost was \$1,390.84. I am further informed and believe that the City incurred additional estimated direct costs of \$10,696.67 in FY 2010-11 and \$1,230.90 in FY 2011-12 to address these requirements.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program (“MRP”) of the Permit, required Copermittees, including the City, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry

weather non-stormwater action levels (“NALs”). These sections required the Copermittees, including the City, to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City’s jurisdiction that was not otherwise performed by the District on behalf of the City, conduct and implement any follow-up source identification investigations for NAL exceedances at City outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations / enforcement, and where necessary, update City compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. I am informed and believe that in FY 2010-11, the City’s calculated share of such shared costs was \$821.67 and that during FY 2011-12, the City’s calculated share of that cost was \$3,073.20. I am further informed and believe that the City incurred additional estimated direct costs of \$9,073.20 in FY 2010-11 and \$2,719.17 in FY 2011-12 to address these requirements.

c. Stormwater Action Levels: Section D of the Permit required the City to conduct end-of-pipe assessments to determine stormwater action level (“SAL”) compliance metrics at major outfalls during wet weather. Under the Permit, the City was required to perform field verification of major outfalls owned by the City, perform any required outfall sampling and

analysis within the City's jurisdiction that is not otherwise performed by the District on behalf of the City, and where necessary, update the City's compliance programs to address SAL exceedances. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$821.67 and that during FY 2011-12, the City's calculated share of that cost was \$3,073.20. I am further informed and believe that the City incurred additional estimated direct costs of \$9,073.20 in FY 2010-11 and \$2,719.17 in FY 2011-12 to address these requirements.

d. Priority Development Projects ("PDPs") and Hydromodification Requirements:
Section F.1.d of the Permit required Copermittees, including the City, to develop and implement low impact development ("LID") principles and structural features into City-owned PDPs, which beginning on July 1, 2012, included all City-owned projects that resulted in the disturbance of one acre or more of land, as well as new public development projects that created 10,000 square feet or more of impervious surface. The Permit further required the City to review each of its PDPs to implement LID BMPs, including requiring specific types of LID Principles and LID BMPs or to make a finding of technical infeasibility, incorporate formalized consideration of LID BMPs into the plan review process and review its local codes, policies and ordinances for barriers to LID implementation and take actions to remove such barriers. Additionally, the City

was required to develop an LID waiver program for incorporation into the Standard Stormwater Mitigation Plan (“SSMP”), to allow a City-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit required the Copermittees, including the City, to develop and implement a Hydromodification Management Plan (“HMP”) to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees, including the City, were required to hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibited Copermittees, including the City, from using non-natural materials, including concrete, riprap or gabions, to reinforce stream channels as mitigation for a PDP. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to perform the studies and analysis and a revised Standard Stormwater Mitigation Plan, an HMP with publically available hydromodification modelling software and a BMP Design Manual, developed and provided training for the Copermittees and the development community and revised the JRMP template. I am informed and believe that in FY 2010-11, the City’s calculated share of such shared costs was \$2,359.31 and that during FY 2011-12, the City’s calculated share of that cost was \$22,131.22. I am further informed and believe that the City incurred additional estimated direct costs of \$26,048.51 in FY 2010-11 and \$19,589.96 in FY 2011-12 to address these requirements.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit required the City to develop and maintain a watershed-based database to track all projects with a final approved SSMP and structural post-construction BMPs, including those PDPs dating back to

July 2005, and to inspect such projects on a routine basis. This program required the City to develop and populate a database of information for each SSMP project built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct inspections. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed a template BMP tracking spreadsheet and updated the JRMP template to reflect these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$186.41 and that during FY 2011-12, the City's calculated share of that cost was \$255.54. I am further informed and believe that the City incurred additional estimated direct costs of \$2,057.61 in FY 2010-11 and \$223.80 in FY 2011-12 to address these requirements.

f. Construction Site Requirements: Section F.2.d of the Permit required Copermittees, including the City, to implement active/passive sediment treatment ("AST") at City- owned construction sites or portions thereof that were determined to be an "exceptional threat" to water quality. Section F.2.e of the Permit required City inspectors at construction sites to review site monitoring data results, if the site monitored its runoff. These requirements would add costs to require AST to every City-owned construction site determined to pose such a threat to water quality and for enhanced inspection training. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, conducted training of Copermittee staff and updated the JRMP template with regard to such requirements. I am informed and believe that in FY 2010-11, the

City's calculated share of such costs was \$114.55 and that during FY 2011-12, the City's calculated share of that cost was \$233.37. I am further informed and believe that the City incurred additional estimated direct costs of \$1,262.92 in FY 2010-11 and \$208.88 in FY 2011-12 to address these requirements.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit required the Copermittees, including the City, to develop and implement, or require implementation of, BMPs for erosion and sediment control on City-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, revised the JRMP template and the SSMP to incorporate road maintenance provisions. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$70.80 and that during FY 2011-12, the City's calculated share of that cost was \$177.65. I am further informed and believe that the City incurred additional estimated direct costs of \$780.73 in FY 2010-11 and \$156.66 in FY 2011-12 to address these requirements.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit required the City, as part of its inspection of commercial/industrial facilities, to review facility monitoring data if the facility monitored its runoff. This provision required inspectors at commercial/industrial sites to spend greater time in the inspection or in analyzing data thereafter.

Additionally, inspectors were required to be further trained so as to be able to read and interpret monitoring and sampling analysis data. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, provided training updates and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$70.80 and that during FY 2011-12, the City's calculated share of that cost was \$219.69. I am further informed and believe that the City incurred additional estimated direct costs of \$780.73 in FY 2010-11 and \$193.96 in FY 2011-12 to address these requirements.

i. Retrofitting of Existing Development: Section F.3.d of the Permit required the Copermittees, including the City, to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. I am informed and believe and therefore state that using funds contributed from the Copermittees, including the City, through the Implementation Agreement, the District retained a consultant to perform necessary studies and develop a Retrofit Study, and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$109.00 and that during FY 2011-12, the City's calculated share of that cost was \$41,454.62. I am further informed and believe that the City incurred additional estimated direct costs of \$1,203.92 in FY 2010-11 and \$36,688.28 in FY 2011-12 to address these requirements.

j. Watershed Water Quality Workplan (“Watershed Workplan”): Section G of the Permit required the Copermittees, including the City, to develop and annually update a Watershed Workplan. This required the Copermittees, including the City, to: characterize watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to Clean Water Act section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and, as part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds

contributed from each Copermittee, including the City, through the Implementation Agreement, the District hired a consultant to gather and analyze historic water quality monitoring data, develop draft and submit the Watershed Workplan and revise the JRMP template. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$727.58 and that during FY 2011-12, the City's calculated share of that cost was \$4,565.99. I am further informed and believe that the City incurred additional estimated direct costs of \$8,033.45 in FY 2010-11 and \$4,043.32 in FY 2011-12 to address these requirements.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit required, among other items, that the Copermittees, including the City, submit a Jurisdictional Runoff Management Program ("JRMP") report each year, beginning on October 31, 2013. The JRMP requirements included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Copermittees, including the City, were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit

existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, the Copermittees, including the City, were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed revisions to the JRMP and Annual Report templates to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$357.81 and that during FY 2011-12, the City's calculated share of that cost was \$1,007.52. I am further informed and believe that the City incurred additional estimated direct costs of \$3,947.41 in FY 2010-11 and \$895.20 in FY 2011-12 to address these requirements.

i. Special Studies: The Monitoring and Reporting Program of the Permit required Copermittees, including the City, to conduct special studies, including (1) a sediment toxicity study, (2) a trash and litter study, (3) a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, (4) a MS4 and receiving water maintenance study and (5) an intermittent and ephemeral stream perennial conversion study. I am informed and believe that the District, using funds contributed by the Copermittees, including the City, conducted the first three studies, performed a work plan for the fourth study and then performed one additional study on LID implementation, in return for not doing the remainder of the fourth study and the fifth study. I am informed and believe that using funds from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop and perform these

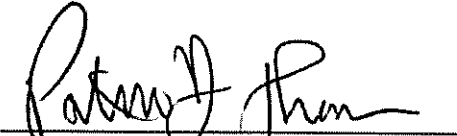
studies and to submit them to the Regional Board. I am informed and believe that in FY 2011-12, the City's calculated share of such costs was \$6,706.43 and that during FY 2012-13, the City's calculated share of that cost was \$27,806.58.

m. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit required Copermittees, including the City, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges did not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of the Permit required Copermittees, including the City, to develop and implement a retrofitting program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the MEP. Section F.6 of the Permit required Copermittees, including the City, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. I am informed and believe and therefore state that these requirements were incorporated into the design and implementation of other programs required by the Permit and set forth above, including the NALs and SALs requirement, the priority development project and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements, and the water quality workplan requirements. I am informed and believe and therefore state that in total, the City incurred a yet to be determined share of calculated costs of \$4,986.38 in FY 2010-11 and \$70,362.94 in FY 2011-12 plus estimated direct

costs of \$5,485.02 in FY 2010-11 and \$5,938.16 in FY 2011-12 in response to these requirements.

6. I am informed and believe that there are no dedicated state, regional or federal funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. The City can collect some inspection fees during the development process. I am informed and believe that such fees are not sufficient to cover the cost of the programs and activities set forth in this Declaration. I am not aware of any other fee or tax that the City would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other source to pay for these new programs and activities is the City's general fund.

I declare under penalty of perjury that foregoing is true and correct. Executed April 25, 2017 at Temecula, California.


Patrick A. Thomas

DECLARATION OF DANIEL A. YORK

CITY OF WILDOMAR

I, DANIEL A. YORK, hereby declare and state as follows:

1. I am Assistant City Manager, Public Works Director, and City Engineer for the City of Wildomar ("City"). In that capacity, I shared responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.
2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB in 2004 and as to which the City issued a notice of intent to comply, and am familiar with those requirements.
3. I also have an understanding of the City's sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the City and other Copermittees under the Permit agreed to share certain costs of complying with the Permit.
4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.
5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit required the City to undertake the following new and/or upgraded activities and which are unique to local government entities and which were not required in the 2004 Permit:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater Discharges: Section B.2 of the Permit removed from the list of discharges exempted from the prohibition against discharges of non-stormwater to the municipal separate storm sewer system (“MS4”) the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. The removal of these three categories of exempted discharges required the creation of new public education and outreach materials, potentially the need for amended ordinances to facilitate the required prohibition, tracking and response to reports of over-irrigation, enforcement and monitoring. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through an Implementation Agreement, the Riverside County Flood Control and Water Conservation District (“District”) updated the Coordinated Monitoring Program (“CMP”), including procedures for response, monitoring and analysis relating to such flows and revised the Jurisdictional Runoff Management Plan (“JRMP”) template, training programs and community outreach programs to address these requirements. I am informed and believe that in Fiscal Year (“FY”) 2010-11, the City’s calculated share of such shared costs was \$0 and that during FY 2011-12, the City’s calculated share of that cost was \$340.02. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program (“MRP”) of the Permit, required Copermittees, including the City, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry weather non-stormwater action levels (“NALs”). These sections required the Copermittees,

including the City, to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City's jurisdiction that was not otherwise performed by the District on behalf of the City, conduct and implement any follow-up source identification investigations for NAL exceedances at City outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations / enforcement, and where necessary, update City compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address NAL exceedances. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$751.30. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

c. Stormwater Action Levels: Section D of the Permit required the City to conduct end-of-pipe assessments to determine stormwater action level ("SAL") compliance metrics at major outfalls during wet weather. Under the Permit, the City was required to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City's jurisdiction that is not otherwise performed by the District on behalf of

the City, and where necessary, update the City's compliance programs to address SAL exceedances. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop a sampling and analysis plan, finalize the sampling and analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$751.30. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

d. Priority Development Projects ("PDPs") and Hydromodification Requirements:

Section F.1.d of the Permit required Copermittees, including the City, to develop and implement low impact development ("LID") principles and structural features into City-owned PDPs, which beginning on July 1, 2012, included all City-owned projects that resulted in the disturbance of one acre or more of land, as well as new public development projects that created 10,000 square feet or more of impervious surface. The Permit further required the City to review each of its PDPs to implement LID BMPs, including requiring specific types of LID Principles and LID BMPs or to make a finding of technical infeasibility, incorporate formalized consideration of LID BMPs into the plan review process and review its local codes, policies and ordinances for barriers to LID implementation and take actions to remove such barriers. Additionally, the City was required to develop an LID waiver program for incorporation into the Standard Stormwater

Mitigation Plan (“SSMP”), to allow a City-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit required the Copermittees, including the City, to develop and implement a Hydromodification Management Plan (“HMP”) to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees, including the City, were required to hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibited Copermittees, including the City, from using non-natural materials, including concrete, riprap or gabions, to reinforce stream channels as mitigation for a PDP. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to perform the studies and analysis and a revised Standard Stormwater Mitigation Plan, an HMP with publically available hydromodification modelling software and a BMP Design Manual, developed and provided training for the Copermittees and the development community and revised the JRMP template. I am informed and believe that in FY 2010-11, the City’s calculated share of such shared costs was \$0 and that during FY 2011-12, the City’s calculated share of that cost was \$5,410.40. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit required the City to develop and maintain a watershed-based database to track all projects with a final approved SSMP and structural post-construction BMPs, including those PDPs dating back to July 2005, and to inspect such projects on a routine basis. This program required the City to

develop and populate a database of information for each SSMP project built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct inspections. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed a template BMP tracking spreadsheet and updated the JRMP template to reflect these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such shared costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$62.47. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

f. Construction Site Requirements: Section F.2.d of the Permit required Copermittees, including the City, to implement active/passive sediment treatment ("AST") at City- owned construction sites or portions thereof that were determined to be an "exceptional threat" to water quality. Section F.2.e of the Permit required City inspectors at construction sites to review site monitoring data results, if the site monitored its runoff. These requirements would add costs to require AST to every City-owned construction site determined to pose such a threat to water quality and for enhanced inspection training. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, conducted training of Copermittee staff and updated the JRMP template with regard to such requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated

share of that cost was \$57.05. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit required the Copermittees, including the City, to develop and implement, or require implementation of, BMPs for erosion and sediment control on City-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, revised the JRMP template and the SSMP to incorporate road maintenance provisions. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$43.43. I am further informed and believe that the City incurred estimated additional direct costs of \$6,000.00 in FY 2010-11 and \$10,000.00 in FY 2011-12 to address these requirements.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit required the City, as part of its inspection of commercial/industrial facilities, to review facility monitoring data if the facility monitored its runoff. This provision required inspectors at commercial/industrial sites to spend greater time in the inspection or in analyzing data thereafter. Additionally, inspectors were required to be further trained so as to be able to read and interpret

monitoring and sampling analysis data. I am informed and believe that the District, using funds contributed from each Copermittee including the City through the Implementation Agreement, provided training updates and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$53.71. I am further informed and believe that the City incurred estimated additional direct costs of \$217.53 in FY 2010-11 and \$167.64 in FY 2011-12 to address these requirements.

i. Retrofitting of Existing Development: Section F.3.d of the Permit required the Copermittees, including the City, to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. I am informed and believe and therefore state that using funds contributed from the Copermittees, including the City, through the Implementation Agreement, the District retained a consultant to perform necessary studies and develop a Retrofit Study, and revised the JRMP template to incorporate these requirements. I am informed and believe that in FY 010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$10,134.37. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

j. Watershed Water Quality Workplan ("Watershed Workplan"): Section G of the Permit required the Copermittees, including the City, to develop and annually update a

Watershed Workplan. This required the Copermittees, including the City, to: characterize watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to Clean Water Act section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and, as part of the review and annual update of the Watershed Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District hired a consultant to gather and analyze historic water quality monitoring data,

develop draft and submit the Watershed Workplan and revise the JRMP template. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$1,116.24. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit required, among other items, that the Copermittees, including the City, submit a Jurisdictional Runoff Management Program ("JRMP") report each year, beginning on October 31, 2013. The JRMP requirements included the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Copermittees, including the City, were required to describe efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally,

the Copermittees, including the City, were required to submit a checklist that required, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District developed revisions to the JRMP and Annual Report templates to incorporate these requirements. I am informed and believe that in FY 2010-11, the City's calculated share of such costs was \$0 and that during FY 2011-12, the City's calculated share of that cost was \$246.31. I am further informed and believe that the City incurred estimated additional direct costs of \$16.59 in FY 2010-11 and \$33.68 in FY 2011-12 to address these requirements.

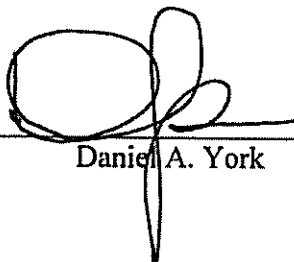
i. Special Studies: The Monitoring and Reporting Program of the Permit required Copermittees, including the City, to conduct special studies, including (1) a sediment toxicity study, (2) a trash and litter study, (3) a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, (4) a MS4 and receiving water maintenance study and (5) an intermittent and ephemeral stream perennial conversion study. I am informed and believe that the District, using funds contributed by the Copermittees, including the City, conducted the first three studies, performed a work plan for the fourth study and then performed one additional study on LID implementation, in return for not doing the remainder of the fourth study and the fifth study. I am informed and believe that using funds from each Copermittee, including the City, through the Implementation Agreement, the District retained a consultant to develop and perform these studies and to submit them to the Regional Board. I am informed and believe that in FY 2011-

12, the City's calculated share of such costs was \$1,639.51 and that during FY 2012-13, the City's calculated share of that cost was \$6,994.48.

m. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit required Copermittees, including the City, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges did not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of the Permit required Copermittees, including the City, to develop and implement a retrofitting program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the MEP. Section F.6 of the Permit required Copermittees, including the City, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. I am informed and believe and therefore state that these requirements were incorporated into the design and implementation of other programs required by the Permit and set forth above, including the NALs and SALs requirement, the priority development project and HMP requirements, the AST requirements at construction sites, the unpaved road BMP and design requirements, the monitoring of construction sites, the existing development retrofit requirements, and the water quality workplan requirements. I am informed and believe and therefore state that in total, the City incurred a yet to be determined share of calculated costs of \$18,317.80 in FY 2011-12 plus estimated additional direct costs of \$6,317.07 in FY 2010-11 and \$10,369.72 in FY 2011-12 in response to these requirements.

6. I am informed and believe that there are no dedicated state or federal funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. The City has access to funding obtained through County Service Area 152 ("CSA 152") and Lighting and Landscape Maintenance District 89-1C (LLMD 89-1C), which funds, in part, the obligations of the City under the Permit. The City also can collect some fees during the development and business registration process. I am informed and believe that these funding sources are not sufficient to cover the cost of the programs and activities set forth in this Declaration. I am not aware of any other fee or tax that the City would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other source to pay for these new programs and activities is the City's general fund.

I declare under penalty of perjury that foregoing is true and correct. Executed April 26, 2017 at Wildomar, California.



Daniel A. York

DECLARATION OF TIM D'ZMURA

CITY OF WILDOMAR

I, TIM D'ZMURA, hereby declare and state as follows:

1. I am City Engineer and Director of Public Works for the City of Wildomar ("City"). In that capacity, I share responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.

2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB in 2004 and as to which the City issued a notice of intent to comply, and am familiar with those requirements.

3. I also have an understanding of the City's sources of funding for programs and activities required to comply with the Permit. I also am aware of arrangements under which the City and other Copermittees under the Permit have agreed to share certain costs of complying with the Permit.

4. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

5. Based on my understanding of the Permit and the requirements of the 2004 Permit, I believe that the Permit requires the City to undertake the following new and/or upgraded activities and which are unique to local government entities:

a. Removal of Categories of Irrigation Runoff From Exempted Non-Stormwater Discharges: Section B.2 of the Permit removes from the list of discharges exempted from the

prohibition against discharges of non-stormwater to the municipal separate storm sewer system (“MS4”) the following categories of discharges: landscape irrigation, irrigation water, and lawn watering discharges. Such discharges were exempted in the 2004 Permit. The removal of these three categories of exempted discharges will require the City to among other things, create new public education and outreach materials, expend City staff time to amend ordinances to facilitate the required prohibition, track and respond to reports of over-irrigation, enforce and monitor compliance of City residents and modify, monitor and more aggressively maintain City irrigation systems and landscaping. On information and belief, the City’s cost to comply with these requirements will exceed \$1,000 in each of fiscal years (“FYs”) 2011-2012 and 2012-2013.

b. Non-Stormwater Dry Weather Action Levels: Sections C and F.4.d and e, as well as Section II.C of the Monitoring and Reporting Program (“MRP”) of the Permit require Copermittees, including the City, to perform water quality sampling at a representative percentage of major outfalls and identified stations in each hydrologic subarea, implement new followup investigations and source tracking activities triggered by each exceedance of dry weather non-stormwater action levels (“NALs”). These sections will require the City, to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City’s jurisdiction that is not otherwise performed by the District on behalf of the City, conduct and implement any follow-up source identification investigations for NAL exceedances at City outfalls, conduct enforcement actions as appropriate to the source, prepare reports on the status and outcome of NAL exceedances, and investigations / enforcement, and where necessary, update City compliance programs as necessary to address NAL exceedances. It is my understanding and belief that using funds contributed from each Copermittee, including the City, through their Implementation Agreement, the Riverside County

Flood Control & Water Conservation District (“District”) has performed an initial GIS screening of potential outfalls within the permit area for each of the copermittees, retained a consultant to develop a sampling and analysis plan; and over the remainder of Fiscal Year (“FY”) 2011-2012 and throughout the Permit term will finalize the sampling and analysis plan, develop a follow-up response program and procedures, conduct initial required NAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis and source identification results in developing annual updates to the Watershed Workplan and Monitoring Reports, and where necessary coordinate development of model updates to compliance programs to address NAL exceedances. On information and belief, the cost to the City of complying with these requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

c. Stormwater Action Levels: Section D of the Permit requires the City to conduct end-of-pipe assessments to determine stormwater action level (“SAL”) compliance metrics at major outfalls during wet weather. The City will be required to perform field verification of major outfalls owned by the City, perform any required outfall sampling and analysis within the City’s jurisdiction that is not otherwise performed by the District on behalf of the City, and where necessary, update the City’s compliance programs to address SAL exceedances. I understand and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District has performed an initial GIS screening of potential outfalls within the permit area for each of the Copermittees, including the City, retained a consultant to develop a sampling and analysis plan; and over the remainder of FY 2011-2012 and throughout the Permit term will finalize the sampling and analysis plan, conduct ongoing SAL sampling and analysis on behalf of each Copermittee, including the City, utilize analysis

and source identification results in developing annual updates the Watershed Workplan and Monitoring Reports, and where necessary, coordinate development of model updates to compliance programs to address SAL exceedances. On information and belief, the cost to the City of these requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

d. Priority Development Projects (“PDPs”) and Hydromodification Requirements:
Section F.1.d of the Permit requires Copermittees, including the City, to develop and implement low impact development (“LID”) principles and structural features into City-owned PDPs, which beginning July 1, 2012 will includes all City-owned projects that result in the disturbance of one acre or more of land, as well as new development projects that create 10,000 square feet or more of impervious surface, including public projects. This section further requires the City to review each of its PDPs to implement LID BMPs, including requiring specific types of LID Principles and LID BMPs or make a finding of technical infeasibility, incorporating formalized consideration of LID BMPs into the plan review process and reviewing its local codes, policies and ordinances for barriers to LID implementation and taking actions to remove such barriers. Additionally, the City is required to develop an LID waiver program for incorporation into the Standard Stormwater Mitigation Plan (“SSMP”), to allow a City-owned PDP to substitute LID BMPs with implementation of alternatives such as treatment control BMPs and either an on-site or off-site mitigation project or other mitigation. Section F.1.h of the Permit requires Copermittees, including the City, to develop and implement a Hydromodification Management Plan (“HMP”) to manage increases in runoff discharge rates and durations from all PDPs. To comply with part F.1.h, the Copermittees, including the City, must hold and/or attend collaborative meetings and public hearings, perform studies and develop an HMP, train staff and

educate the public and adapt the local SSMP. In addition, Section F.1.h(2) prohibits Copermittees, including the City, from using non-natural materials, including concrete, riprap or gabions, in reinforcing stream channels as mitigation for a PDP. None of these provisions were in the 2004 Permit. I am informed and believe that, using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District will hire a consultant to perform the studies and analysis and create a HMP that is intended to comply with the 2010 Permit. Additionally, the City will be required to implement the new SSMP requirements for LID and Hydromodification mitigation on an increased number of City projects. On information and belief, the cost to the City of complying with these requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

e. BMP Maintenance Tracking Requirements: Section F.1.f of the Permit requires the City to develop and maintain a watershed-based database to track all projects that have a final approved SSMP and structural post-construction BMPs, including those PDPs dating to July 2005, and to inspect such projects on a routine basis. These requirements were not part of the 2004 Permit. This program requires the City to develop and populate a database of information for each SSMP project that has been built since 2005, including information on BMP types, locations, parties responsible for maintenance, date of construction, dates and findings of maintenance verifications and corrective actions; to contact property owners for permission to inspect on-site BMPs; to develop and implement a program to conduct inspections and/or BMP verifications on all SSMP projects; and, to conduct inspections. On information and belief, the cost to the City of complying with these provisions will exceed \$1,000 during each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

f. Construction Site Requirements: Section F.2.d of the Permit requires Copermittees, including the City, to implement active/passive sediment treatment at City- owned construction sites or portions thereof that are determined to be an “exceptional threat” to water quality. Section F.2.e of the Permit requires City inspectors at construction sites to review site monitoring data results, if the site monitors its runoff. The first requirement will add cost to every City-owned construction site that is determined to pose such a threat to water quality due to the requirement to adopt AST. The second requirement will require the City to ensure that its inspection staff is trained at a higher level than previously. These requirements were not contained in the 2004 Permit. On information and belief, the cost to the City of such requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

g. Maintenance of Unpaved Roads: Section F.3.a.10 of the Permit requires the Copermittees, including the City, to develop and implement, or require implementation of, BMPs for erosion and sediment control on City-maintained unpaved roads, as well to develop and implement BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities, to maintain unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport, to regrade unpaved roads to be sloped outward, or adopt alternative equally effective BMPs to minimize erosion and sedimentation and to examine the feasibility of replacing existing culverts or design new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology. These requirements were not contained in the 2004 Permit. The City will be required to assess its maintenance practices on City-maintained unpaved roads, which may require new activities or BMPs to be deployed for compliance with the 2010 Permit. On information and belief, the cost to the City of such

requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

h. Commercial/Industrial Inspection Requirement: Section F.3.b.4 of the Permit requires the City, as part of its inspection of commercial/industrial facilities, to review facility monitoring data if the site monitors its runoff. This provision will involve greater time spent by inspectors at commercial/industrial sites or in analyzing data thereafter. Additionally, inspectors will have to be trained more highly so as to be able to read and interpret monitoring and sampling analysis data. These requirements were not in the 2004 Permit. On information and belief, the cost to the District of such requirements is expected to exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

i. Retrofitting of Existing Development: Section F.3.d of the Permit requires the Copermittees, including the City, to develop and implement a retrofitting program for existing development, including requiring the identification and inventorying of existing development as candidates for retrofitting; the evaluation and ranking of the inventoried developments to prioritize retrofitting; consideration of the results of the evaluation in prioritizing workplans for the following year; tracking and inspecting completed retrofit BMPs; and implementing a program to encourage retrofit of private properties. These requirements were not contained in the 2004 Permit. I am informed and believe that using funds contributed from the Copermittees, including the City, through the Implementation Agreement, the District has hired a consultant to perform the necessary studies and develop the retrofitting program for the Santa Margarita region. In addition to the cost to develop the program, the City will be required to implement the program on an ongoing basis. On information and belief, the cost to the City of these

requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

j. Watershed Water Quality Workplan ("Watershed Workplan"): Section G of the Permit requires the Copermittees, including the City, to develop and annually update a Watershed Workplan. This requires the City to: characterize watershed receiving water quality, including analyzing monitoring data collected under the Permit and from other public and private organizations; identify and prioritize water quality problems by constituent and by location, giving consideration to total maximum daily load programs, waters listed as impaired pursuant to CWA section 303(d), and other pertinent conditions; identify likely sources causing the highest water quality problems within the watershed, including from monitoring conducted under the Permit and additional focused water quality monitoring to identify specific sources; develop a watershed BMP implementation strategy, including a schedule to implement BMPs to abate specific receiving water quality problems; develop a strategy to monitor improvements in receiving water quality stemming from implementation of BMPs described in the Watershed Workplan, including required monitoring in the receiving water; establish a schedule for development and implementation of the watershed strategy outlined in the Watershed Workplan, including the holding of annual watershed workplan review meetings open to the public; implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the RWQCB; cooperate among Copermittees to develop and implement the Watershed Workplan, including the requirement to pursue interagency agreements with non-Copermittee MS4 operators; implement a public participation mechanism within each watershed, including opportunity for public review and comment on the draft Watershed Workplan prior to its submission to the RWQCB; and as part of the review and annual update of the Watershed

Workplan, hold an Annual Watershed Review meeting open to the public and adequately noticed. I am informed and believe that using funds contributed from each Copermittee, including the City, through the Implementation Agreement, the District plans to hire a consultant to develop the Watershed Workplan. In addition to the costs to develop the plan, the Copermittees, including the City will be required to either directly, or with the assistance of a consultant, conduct and administer annual updates to the workplan. These requirements were not contained in the 2004 Permit. On information and belief, the cost to the City of these requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially in later years of the Permit.

k. JRMP Annual Report Requirements: Section K.3.c (plus Table 5 in the Permit and Attachment D) of the Permit requires, among other items, that the Copermittees, including the City, submit a Jurisdictional Runoff Management Program (“JRMP”) report each year, beginning on October 31, 2013. New requirements not in the 2004 Permit include the following: detailed tracking of various elements on a per-facility basis, including descriptions of BMPs required at PDPs; the name and location of all PDPs granted a waiver from implementing LID BMPs; the total number and date of inspections conducted at each construction site; descriptions of high-level enforcement actions; a summary and assessment of BMP retrofits implemented at flood control structures; a summary of inspection findings and follow-up activities for each municipal facility and area inspected, as well as the number and date; BMP violations and enforcement actions for each facility; tracking of inspections of commercial/industrial facilities by facility or mobile business, including number and date of inspections; BMP violations, number, date and types of enforcement actions; and, a description of each high-level enforcement action. Additionally, Copermittees, including the City, are required to describe

efforts to manage runoff and stormwater pollution in common interest areas and mobile home parks, describe efforts to retrofit existing developments and efforts to encourage private landowners to retrofit existing development, provide a detailed list of all implemented retrofit projects, any proposed retrofit or regional mitigation projects and timelines for future implementations. Additionally, the Copermittees, including the City, are required to submit a checklist that requires, among other things, the listing of active and inactive construction sites, the number of development plan reviews and grading permits issued, as well as number of projects exempted from hydromodification requirements, the number of PDPs, the amount of waste removed from MS4 maintenance and the total miles of MS4 inspected. These requirements were not contained in the 2004 Permit. City staff will be required to enhance and expand its tracking mechanisms, and spend more time preparing annual reports. On information and belief, the cost to the City of these requirements will exceed \$1,000 in FY 2012-2013 and potentially in later years of the Permit.

l. Special Studies: The Monitoring and Reporting Program of the Permit requires Copermittees, including the City, to conduct special studies, including a sediment toxicity study, a trash and litter study, a study of agricultural, federal and tribal discharges into the Copermittees' MS4s, a study regarding a study on MS4 and receiving water maintenance activities, and a study on intermittent and ephemeral streams converted to perennial streams. None of these studies was required by the 2004 Permit. These studies will require Copermittees, including the City, to locate suitable waterbodies, if any, to submit workplans, to conduct monitoring activities, to conduct analysis of the monitoring results and to report the results of the analysis to the RWQCB in the annual monitoring report. I am informed and believe that using funds from each Copermittee, including the City, through the Implementation Agreement, the

District has hired a consultant to develop these studies, and will either directly or through the assistance of a consultant, conduct and report upon the studies. On information and belief, the cost to the City of these requirements will exceed \$1,000 in each of FYs 2011-2012 and 2012-2013 and potentially additional years of the Permit.

m. Requirement to Prohibit Discharges Causing or Contributing to Violation of Water Quality Standards: Section A.3 of the Permit requires Copermittees, including the City, to ensure that discharges from MS4s operated by Copermittees, including the City, do not cause or contribute to the violation of water quality standards. The Section also requires Copermittees, including the City, in the event of a determination by a Copermittee or the RWQCB that stormwater MS4 discharges are causing or contributing to a violation of a water quality standard, to notify the RWQCB and to submit a report describing iterative BMPs that will be implemented to prevent or reduce the pollutants causing or contributing to the exceedance, and to thereafter modify its jurisdictional runoff management programs and monitoring programs to incorporate approved modified BMPs and to implement such BMPs. Copermittees, including the City, are required to repeat this procedure for continuing or recurring exceedances of the same water quality standards unless directed otherwise by the RWQCB's executive officer. Section A.3.c of the Permit further provides that the RWQCB may enforce any provision of the Permit while a Copermittee prepares and implements the report. On information and belief, the inclusion of Section A.3.c, which was not in the 2004 Permit, as well as a recent holding of the United States Circuit Court of Appeals for the Ninth Circuit that a similar prohibition in an MS4 permit issued to discharges in the County of Los Angeles imposed a separate prohibition not subject to the iterative BMP process, creates new potential liability for Copermittees, including the City. On information and belief, the cost for the City to comply with Section A.3, if the same were


triggered, would exceed \$1,000 in that FY and in succeeding FYs in the term of the Permit.

n. Requirements for Permit Programs to Ensure No Violations of Water Quality Standards and Other Standards: Sections F.1, F.1.d, F.2, F.3.a, F.3.b and F.3.c of the Permit require Copermittees, including the City, to implement programs to ensure that development project discharges, PDP discharges, construction site discharges, municipal discharges, commercial/industrial discharges and residential discharges do not cause or contribute to a violation of water quality standards and prevent illicit discharges into the MS4. Section F.3.d. of the Permit requires Copermittees, including the City, to develop and implement a retrofitting program to, among other things, prevent discharges from the MS4 from causing or contributing to a violation of water quality standards and to reduce the discharge of stormwater pollutants to the MEP. Section F.6 of the Permit requires Copermittees, including the City, to implement education programs to measurably change the behavior of target communities and thereby reduce pollutants in stormwater discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. The 2004 Permit did not include these requirements. Copermittees, including the City, could be required to develop programs that are intended to guarantee that there are no exceedances of water quality standards, and to ensure that illicit discharges have been prevented. On information and belief, if the RWQCB or some other body were to order changes or enhancements to the City's Permit programs to meet the requirements of such provisions, the cost to the City to comply with these requirements would exceed \$1,000 in the applicable FYs.

6. I am informed and believe that there are no dedicated state or federal funds that are or will be available to pay for any of the new and/or upgraded programs and activities set forth in this Declaration. The City has access to funding obtained through County Service Area

152 ("CSA 152") and Lighting and Landscape Maintenance District 89-1C (LLMD 89-1C), which funds, in part, the obligations of the City under the Permit. The City also can collect some fees during the development and business registration process. I am informed and believe that these funding sources are not sufficient to cover the cost of the programs and activities set forth in this Declaration. I am not aware of any other fee or tax that the City would have the discretion to impose under California law to recover any portion of the cost of these programs and activities. I further am informed and believe that the only other source to pay for these new programs and activities is the City's general fund.

I declare under penalty of perjury that foregoing is true and correct. Executed November 30, 2011 at Wildomar, California.



Tim D'Zmura

WARREN D. WILLIAMS
General Manager-Chief Engineer



RECEIVED
December 2, 2011
Commission on
State Mandates
1995 MARKET STREET
RIVERSIDE, CA 92501
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FAX 951.788.9965
www.rcflood.org

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

SUPPLEMENTAL DECLARATION OF JASON UHLEY

RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

I, JASON UHLEY, hereby declare and state as follows:

1. I am Chief of the Watershed Protection Division of the Riverside County Flood Control & Water Conservation District ("District"). In that capacity, I share responsibility for the compliance of the District with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the District.


2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB to the District in 2004, and am familiar with those requirements.

3. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

4. In addition to the four special studies identified in Paragraph 5.j of my Declaration dated November 9, 2011, the Monitoring and Reporting Program in the Permit also requires the Copermittees under the Permit, including the District, to conduct a trash and litter

special study. This special study was not required in the 2004 Permit. I am informed and believe that the tasks required to perform this special study, the funding arrangements, and the cost to the District, are the same as alleged in Paragraph 5.j of my Declaration dated November 9, 2011.

I declare under penalty of perjury that foregoing is true and correct. Executed November 30, 2011 at Riverside, California.



JASON E. UHLEY

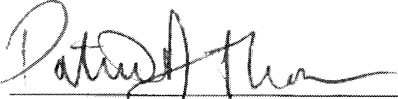
SUPPLEMENTAL DECLARATION OF PAT THOMAS

CITY OF MURRIETA

I, PAT THOMAS, hereby declare and state as follows:

1. I am City Engineer for the City of Murrieta ("City"). In that capacity, I share responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.
2. I have reviewed sections of the Permit, including the Monitoring and Reporting Program, and am familiar with those provisions.
3. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.
4. In addition to the four special studies identified in Paragraph 5.1 of my Declaration dated November 9, 2011, the Monitoring and Reporting Program in the Permit also requires the Copermittees under the Permit, including the City, to conduct a trash and litter special study. This special study was not required in the 2004 Permit. I am informed and believe that the tasks required to perform this special study, the funding arrangements, and the cost to the City, are the same as alleged in Paragraph 5.1 of my Declaration dated November 9, 2011.

I declare under penalty of perjury that foregoing is true and correct. Executed December 1st, 2011 at Murrieta, California.



Pat Thomas, City Engineer

SUPPLEMENTAL DECLARATION OF GREG BUTLER

CITY OF TEMECULA

I, GREG BUTLER, hereby declare and state as follows:

1. I am Director of Public Works for the City of Temecula ("City"). In that capacity, I share responsibility for the compliance of the City with regard to the requirements of California Regional Water Quality Control Board, San Diego Region ("RWQCB") Order No. R9-2010-0016 (the "Permit"), as they apply to the City.

2. I have reviewed sections of the Permit as set forth herein and am familiar with those provisions. I also am aware of the requirements of pertinent sections of Order No. R9-2004-001 ("2004 Permit") which was issued by the RWQCB to the City in 2004, and am familiar with those requirements.

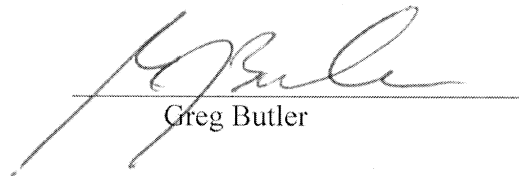
3. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

4. In addition to the four special studies identified in Paragraph 5.k of my Declaration dated November 9, 2011, the Monitoring and Reporting Program in the Permit also requires the Copermittees under the Permit, including the City, to conduct a trash and litter special study. This special study was not required in the 2004 Permit. I am informed and believe that the tasks required to perform this special study, the funding arrangements and the

cost to the City, are the same as alleged in Paragraph 5.k of my Declaration dated November 9, 2011.

I declare under penalty of perjury that foregoing is true and correct.

Executed November 30, 2011 at Temecula, California.



Greg Butler

Section 7

DOCUMENTATION

In Support of Joint Test Claim of Riverside County Local
Agencies Concerning San Diego RWQCB Order No. R9-2010-
0033

- Tab 1: San Diego RWQCB Order No. R9-2010-0016,
Attachments and Fact Sheet
- Tab 2: San Diego RWQCB Order No. R9-2004-0001
- Tab 3: Statutory and Regulatory Provisions
- Tab 4: Cases and Administrative Decisions
- Tab 5: Declaration of Jason Uhley
- Tab 6: Administrative and Miscellaneous Evidence

Tab 1

**Waste Discharge Requirements for
Discharges from the
Municipal Separate Storm Sewer Systems (MS4s)
Draining the County of Riverside, the Incorporated Cities of
Riverside County, and the Riverside County Flood Control
and Water Conservation District within the San Diego Region**

Adopted by the
California Regional Water Quality Control Board
San Diego Region
on
November 10, 2010

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 Sky Park Court, Suite 100
San Diego, California 92123-4340
Telephone (858) 467-2952**

STATE OF CALIFORNIA
ARNOLD SCHWARZENEGGER, Governor
LINDA S. ADAMS, Agency Secretary, California Environmental Protection Agency



**California Regional Water Quality Control Board
San Diego Region**

Grant Destache, <i>Vice Chair</i>	Industrial Water Use
Eric Anderson	Irrigated Agriculture
Wayne Rayfield	Water Quality
George Loveland	Water Supply
Marc Luker	Undesignated (Public)
Gary Strawn	Recreation / Wildlife
Bill Green	Water Quality

David W. Gibson, *Executive Officer*
James Smith, *Assistant Executive Officer*

This permit was prepared under the direction of

David T. Barker, P.E., *Supervising Water Resource Control Engineer, Surface Water Basins Branch*
Chiara Clemente, *Senior Environmental Scientist, Northern Watershed Unit*

by

Benjamin Isaac Neill, *Water Resource Control Engineer*
Chad Lörtscher Loflen, *Environmental Scientist*
Wayne Chiu, P.E., *Water Resource Control Engineer*

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Attachment A – Basin Plan Prohibitions

Attachment B – Standard Provisions, Reporting Requirements, and Notifications

Attachment C – Definitions

Attachment D – Scheduled Submittal Summary and Reporting Checklist Requirements

Attachment E – Receiving Waters And MS4 Discharge Monitoring And Reporting

Program No. R9-2010-0016

Attachment F – Data

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board), finds that:

A. BASIS FOR THE ORDER

1. This Order is based on the federal Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable State and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (State Water Board), the Water Quality Control Plan for the San Diego Basin adopted by the San Diego Water Board (Basin Plan), the California Toxics Rule, and the California Toxics Rule Implementation Plan.
2. This Order reissues National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0108766, which was first adopted by the San Diego Water Board on July 16, 1990 (Order No. 90-38), and then reissued on May 13, 1998 (Order No. 98-02). On May 26, 1998, the United States Environmental Protection Agency (USEPA), Region IX, objected to Order No. 98-02 due to concerns regarding Receiving Water Limitations (RWL) language. The USEPA concluded that the RWL language in the permit did not comply with the CWA and its implementing regulations. On April 27, 1999, the USEPA reissued the MS4 permit, which the San Diego Water Board adopted as Addendum No. 1 to Order No. 98-02 on November 8, 2000. On July 14, 2004, the San Diego Water Board adopted the third term MS4 permit, Order No. R9-2004-001. On January 15, 2009, the Riverside County Flood Control and Water Conservation District (RCFCD), as the Principal Copermitee, submitted a Report of Waste Discharge (ROWD) for reissuance of the municipal separate storm sewer system (MS4) Permit.
3. This Order is consistent with the following precedential Orders adopted by the State Water Board addressing MS4 NPDES Permits: Order 99-05, Order WQ-2000-11, Order WQ 2001-15, and Order WQO 2002-0014.¹

¹ In July 2010, the court in *Los Angeles County v. State Water Resources Control Board* remanded the Los Angeles Water Board's MS4 permit underlying Order WQ 2009-0008 for procedural reasons occurring during the permit adoption process. The court did not evaluate or rule upon the substantive findings and reasoning set forth in Order WQ 2009-0008. The State Water Board rescinded and voided Order WQ 2009-0008 to comply with the court's order. While the San Diego Water Board may no longer cite Order WQ 2009-0008, the San Diego Water Board has independently considered whether the requirement to eliminate non-storm water discharges is subject to the MEP standard. The San Diego Water Board concludes that the MEP standard does not apply to non-storm water discharges for the same reasons expressed by the State Water Board.

4. The Fact Sheet / Technical Report for the Order No. R9-2010-0016, NPDES No. CAS0108766, Waste Discharge Requirements for Discharges from the MS4s Draining the County of Riverside, the Incorporated Cities of Riverside County, and the Riverside County Flood Control and Water Conservation District within the San Diego Region, includes cited regulatory and legal references and additional explanatory information and data in support of the requirements of this Order. This information, including any supplements thereto, is hereby incorporated by reference into these findings.

B. REGULATED PARTIES

Each of the persons in Table 1 below, hereinafter called Copermittees or dischargers, owns or operates an MS4, through which it discharges into waters of the United States (U.S.) within the San Diego Region. These MS4s fall into one or more of the following categories: (1) a medium or large MS4 that services a population of greater than 100,000 or 250,000 respectively; or (2) a small MS4 that is “interrelated” to a medium or large MS4; or (3) an MS4 that contributes to a violation of a water quality standard; or (4) an MS4 which is a significant contributor of pollutants to waters of the U.S.

Table 1. Municipal Copermittees

1. City of Murrieta	4. County of Riverside
2. City of Temecula	5. Riverside County Flood Control and Water Conservation District
3. City of Wildomar	

The Cities of Murrieta, Menifee and Wildomar also discharge into the waters of the U.S. in the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board), so are located partially within both the San Diego and Santa Ana Water Board boundaries. Water Code (WC) section 13228 provides a way to streamline the regulation of entities whose jurisdictions straddle the border of two or more Regions. WC section 13228 is implemented in this Order to ease the regulatory burden on Storm Water Agencies and Municipalities that lie in both the San Diego Water Board and the adjacent Santa Ana Water Board’s jurisdiction. As allowed by California Water Code (CWC) §13228, the Cities of Murietta, Menifee, and Wildomar submitted written requests to be regulated for MS4 purposes under a permit adopted by only one Water Board. As authorized by CWC §13228 and pursuant to written agreements dated September 28, 2010 between the San Diego Water Board and the Santa Ana Water Board, the Cities of Murrieta and Wildomar are wholly regulated by the San Diego Water Board under this Order, including those portions of the Cities jurisdiction not within the San Diego Water Board’s region. Similarly, the City of Menifee is wholly regulated by the Santa Ana Water Board under Order No. R8-2010-0033, including those portions of the City of Menifee within the San Diego Water Board’s region.

C. DISCHARGE CHARACTERISTICS

1. Discharges from the MS4 contain waste, as defined in the CWC, and pollutants that adversely affect the quality of the waters of the State. The discharge from an MS4 is a "discharge of pollutants from a point source" into waters of the U.S. as defined in the CWA.
2. MS4 storm water and non-storm water discharges are likely to contain pollutants that cause or threaten to cause a violation of water quality standards, as outlined in the Basin Plan. Storm water and non-storm water discharges from the MS4 are subject to the conditions and requirements established in the Basin Plan for point source discharges.
3. The most common categories of pollutants in runoff include total suspended solids, sediment, pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., copper, lead, zinc and cadmium), petroleum products and polynuclear aromatic hydrocarbons, synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), detergents, and trash.
4. The discharge of pollutants and/or increased flows from MS4s may cause or threaten to cause the concentration of pollutants to exceed applicable receiving water quality objectives and/or impair or threaten to impair designated beneficial uses resulting in a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance.
5. Pollutants in runoff can threaten and adversely affect human health. Human illnesses have been clearly linked to recreating near storm drains flowing to receiving waters. Also, runoff pollutants in receiving waters can bioaccumulate in the tissues of invertebrates and fish, which may be eventually consumed by humans.
6. Runoff discharges from MS4s often contain pollutants that cause toxicity to aquatic organisms (i.e., adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). Toxic pollutants impact the overall quality of aquatic systems and beneficial uses of receiving waters.
7. The Copermittees discharge runoff into lakes, drinking water reservoirs, rivers, streams, creeks, bays, estuaries, coastal lagoons, the Pacific Ocean, and tributaries thereto within one of the eleven hydrologic units (Santa Margarita Hydrologic Unit) comprising the San Diego Region as shown in Table 2. Some of the receiving water bodies have been designated as impaired by the San Diego Water Board in 2009 pursuant to CWA section 303(d).

Table 2. Common Watersheds and CWA Section 303(d) Impaired Waters in the San Diego Region.

Hydrologic Area (HA) or Hydrologic Subarea (HSA) of the Santa Margarita Hydrologic Unit	Major Receiving Water Bodies	303(d) Pollutant(s)/Stressor or Water Quality Effect ²
DeLuz Creek HSA (902.21)	De Luz Creek	Iron, Manganese, Nitrogen, Sulfates
Murrieta HSA (902.32)	Long Canyon Creek (tributary to Murrieta Creek)	Chlorpyrifos, E. Coli, Fecal Coliform, Iron, Manganese
Wolf HSA (902.52)	Murrieta Creek	Chlorpyrifos, Copper, Iron, Manganese, Nitrogen, Toxicity
Pauba HSA (902.51)	Redhawk Channel	Chlorpyrifos, Copper, Diazinon, E. Coli, Fecal Coliform, Iron, Manganese, Nitrogen, Phosphorus, Total Dissolved Solids
Gavilan HSA (902.22)	Sandia Creek	Iron, Sulfates
Gertrudis HSA (902.42)	Santa Gertrudis Creek	Chlorpyrifos, Copper, E. Coli, Fecal Coliform, Iron, Phosphorous
Lower Ysidora HSA (902.11)	Santa Margarita Lagoon	Eutrophic
Lower Ysidora HSA (902.11)	Santa Margarita River (Lower)	Enterococcus, Fecal Coliform, Phosphorus, Total Nitrogen as N
Gavilan HSA (902.22)	Santa Margarita River (Upper)	Toxicity
Pauba HSA (902.51)	Temecula Creek	Chlorpyrifos, Copper, Phosphorus, Total Dissolved Solids, Toxicity
French HSA (902.33)	Warm Springs Creek (Riverside County)	Chlorpyrifos, E. Coli, Fecal Coliform, Iron, Manganese, Phosphorus, Total Nitrogen as N

² The listed 303(d) pollutant(s) do not necessarily reflect impairment of the entire corresponding WMA or all corresponding major surface water bodies. The specific impaired portions of each WMA are listed in the State Water Resources Control Board's 2008 Section 303(d) List of Water Quality Limited Segments.

8. Trash is a persistent pollutant that can enter receiving waters from the MS4, accumulate, and be transported downstream into receiving waters over time. Trash poses a serious threat to the beneficial uses of the receiving waters, including, but not limited to, human health, rare and endangered species, navigation and human recreation.
9. The Copermittees' water quality monitoring data submitted to date documents persistent violations of Basin Plan water quality objectives for various runoff-related pollutants (indicator bacteria, dissolved solids, turbidity, metals, pesticides, etc.) at various watershed monitoring stations. Persistent toxicity has also been observed at some watershed monitoring stations. In addition, bioassessment data indicate that the majority of the monitored receiving waters have Poor to Very Poor Index of Biotic Integrity ratings. In sum, the above findings indicate that runoff discharges are causing or contributing to water quality impairments, and are a leading cause of such impairments in Riverside County.
10. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed area is significantly greater in runoff volume, velocity, and peak flow rate than pre-development runoff from the same area. Runoff durations can also increase as a result of flood control and other efforts to control peak flow rates. Increased volume, velocity, rate, and duration of runoff, and decreased natural clean sediment loads, greatly accelerate the erosion of downstream natural channels. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 3-5 percent conversion from natural to impervious surfaces. The increased runoff characteristics from new development must be controlled to protect against increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.
11. Development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area is significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must be controlled to protect downstream receiving water quality.

12. Development and urbanization especially threaten environmentally sensitive areas (ESAs), such as water bodies designated as supporting a RARE beneficial use (supporting rare, threatened or endangered species) and CWA 303(d)-impaired water bodies. Such areas have a much lower capacity to withstand pollutant loads than other, more sensitive areas. In essence, development that is ordinarily insignificant in its impact on the environment may become significant in a particularly sensitive environment. Therefore, additional controls to reduce storm water pollutants from new and existing development may be necessary for areas adjacent to or discharging directly to an ESA.
13. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not “inject” runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; (3) protecting footings and foundations; (4) ensuring that each drainage feature is adequately maintained in perpetuity; and (5) pretreatment.
14. Non-storm water (dry weather) discharge from the MS4 is not considered a storm water (wet weather) discharge and therefore is not subject to regulation under the Maximum Extent Practicable (MEP) standard from CWA 402(p)(3)(B)(iii), which is explicitly for “Municipal ... *Stormwater Discharges* (emphasis added)” from the MS4. Rather, non-storm water discharges into the storm sewers, per CWA 402(p)(3)(B)(ii), are to be effectively prohibited. Such dry weather non-storm water discharges have been shown to contribute significant levels of pollutants and flow in arid, developed Southern California watersheds and are to be effectively prohibited under the CWA.
15. Non-storm water discharges to the MS4 granted an influent exception [i.e., which are exempt from the effective prohibition requirement set forth in CWA section 402(p)(3)(B)(ii)] under 40 CFR 122.26 are included within this Order. Any exempted discharges identified by Copermittees as a source of pollutants are subsequently required to be *addressed* (emphasis added) as illicit discharges through prohibition and incorporation into existing IC/ID programs. Furthermore, the USEPA contemplates that permitting agencies such as the San Diego Water Board may also identify exempted discharges as a source of pollutants required to be addressed as illicit discharges (See Vol. 55 Fed. Reg. 48037). The San Diego Water Board and the Copermittees have identified landscape irrigation, irrigation water and lawn water, previously exempted discharges, as a source of pollutants and conveyance of pollutants to waters of the U.S.

D. RUNOFF MANAGEMENT PROGRAMS

1. General

- a. This Order specifies requirements necessary for the Copermitees to reduce the discharge of pollutants in storm water to the MEP. However, since MEP is a dynamic performance standard, which evolves over time as runoff management knowledge increases, the Copermitees' runoff management programs must continually be assessed and modified to incorporate improved programs, control measures, best management practices (BMPs), etc. in order to achieve the evolving MEP standard. Absent evidence to the contrary, this continual assessment, revision, and improvement of runoff management program implementation is expected to ultimately achieve compliance with water quality standards in the Region.
- b. The Copermitees have generally been implementing the jurisdictional runoff management programs (JRMPs) required pursuant to Order No. R9-2004-001 since July 14, 2005. Prior to that, the Copermitees were regulated by Order No. 98-02, since May 13, 1998. MS4 discharges, however, continue to cause or contribute to violations of water quality standards as evidenced by the Copermitees' monitoring results.
- c. This Order contains new or modified requirements that are necessary to improve Copermitees' efforts to reduce the discharge of pollutants in storm water runoff to the MEP and achieve water quality standards. Some of the new or modified requirements, such as the revised Watershed Water Quality Workplan (Watershed Workplan) section, are designed to specifically address high priority water quality problems. Other requirements, such as for unpaved roads, are a result of San Diego Water Board's identification of water quality problems through investigations and complaints during the previous permit period. Other new or modified requirements address program deficiencies that have been noted during audits, report reviews, and other San Diego Water Board compliance assessment activities. Additional changes in the monitoring program provide consistency with the Code of Federal Regulations, USEPA guidance, State Water Board guidance, and the Southern California Monitoring Coalition recommendations.
- d. Updated individual Storm Water Management Plans (Individual SWMP or JRMP), and Watershed Stormwater Management Plans (watershed SWMPs or Watershed Workplans), which, together with references in the DAMP, describe the Copermitees' runoff management programs in their entirety, are needed to guide the Copermitees' runoff management efforts and aid the Copermitees in tracking runoff management program implementation. Hereinafter, the individual SWMP is referred to as the JRMPs and the Watershed SWMP is referred to as the Watershed Workplan. It is practicable for the Copermitees to update the

JRMPs and Watershed Workplans within the timeframe specified in this Order, since significant efforts to develop these programs have already occurred.

- e. Pollutants can be effectively reduced in storm water runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention is the reduction or elimination of pollutant generation at its source and is the best "first line of defense." Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control BMPs remove pollutants that have been mobilized by wet-weather or dry-weather flows.
- f. Runoff needs to be addressed during the three major phases of urban development (planning, construction, and use) in order to reduce the discharge of pollutants from storm water to the MEP, effectively prohibit non-storm water discharges and protect receiving waters. Development which is not guided by water quality planning policies and principles can unnecessarily result in increased pollutant load discharges, flow rates, and flow durations which can negatively impact receiving water beneficial uses. Construction sites without adequate BMP implementation result in sediment runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development generates substantial pollutant loads which are discharged in runoff to receiving waters.
- g. Annual reporting requirements included in this Order are necessary to meet federal requirements and to evaluate the effectiveness and compliance of the Copermittees' programs.
- h. This Order establishes Storm Water Action Levels (SALs) for selected pollutants based on USEPA Rain Zone 6 (arid southwest) Phase I MS4 monitoring data for pollutants in storm water. The SALs were computed as the 90th percentile of the data set, utilizing the statistical based population approach, one of three approaches recommended by the State Water Board's Storm Water Panel in its report, 'The Feasibility of Numerical Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities (June 2006). SALs are identified in Section D of this Order. Copermittees must implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water from the permitted areas so as not to exceed the SALs. Exceedance of SALs may indicate inadequacy of programmatic measures and BMPs required in this Order.

2. Development Planning

- a. The Standard Storm Water Mitigation Plan (SSMP) requirements contained in this Order are consistent with Order WQ-2000-11 adopted by the State Water Board on October 5, 2000. In the precedential order, the State Water Board

found that the design standards, which essentially require that runoff generated by 85 percent of storm events from specific development categories be infiltrated or treated, reflect the MEP standard. The order also found that the SSMP requirements are appropriately applied to the majority of the Priority Development Project categories that are also contained in Section F.1 of this Order. The State Water Board also gave California Regional Water Quality Control Boards (Regional Water Boards) the needed discretion to include additional categories and locations, such as retail gasoline outlets (RGOs), in SSMPs.

- b. Controlling runoff pollution by using a combination of onsite source control and site design BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: (1) Many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events. (2) Whereas, onsite source control BMPs can be applied during all runoff conditions end-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; (3) End-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; (4) End-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the pollutant source and the BMP; and (5) Offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.
- c. Use of Low-Impact Development (LID) site design BMPs at new development, redevelopment and retrofit projects can be an effective means for minimizing the impact of storm water runoff discharges from the development projects on receiving waters. LID is a site design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques. LID site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of storm water runoff. Current runoff management, knowledge, practices and technology have resulted in the use of LID BMPs as an acceptable means of meeting the storm water MEP standard.
- d. RGOs are significant sources of pollutants in storm water runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other developed areas.
- e. Industrial sites are significant sources of pollutants in runoff. Pollutant concentrations and loads in runoff from industrial sites are similar or exceed pollutant concentrations and loads in runoff from other land uses, such as commercial or residential land uses. As with other land uses, LID site design,

source control, and treatment control BMPs are needed at industrial sites in order to meet the MEP standard. These BMPs are necessary where the industrial site is larger than 10,000 square feet. The 10,000 square feet threshold is appropriate, since it is consistent with requirements in other Phase I NPDES storm water regulations throughout California.

- f. If not properly designed or maintained, certain BMPs implemented or required by municipalities for runoff management may create a habitat for vectors (e.g. mosquitoes and rodents). Proper BMP design and maintenance to avoid standing water, however, can prevent the creation of vector habitat. Nuisances and public health impacts resulting from vector breeding can be prevented with close collaboration and cooperative effort between municipalities, local vector control agencies, and the California Department of Public Health during the development and implementation of runoff management programs.
- g. The increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads in storm water runoff and the volume of storm water runoff. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by natural vegetated soil. Hydromodification measures for discharges to hardened channels are needed for the future restoration of the hardened channels to their natural state, thereby restoring the chemical, physical, and biological integrity and beneficial uses of local receiving waters.

3. Construction and Existing Development

- a. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (State and local) storm water regulation. Under this dual system, each Copermitttee is responsible for enforcing its local permits, plans, and ordinances, and the San Diego Water Board is responsible for enforcing the General Construction Activities Storm Water Permit, State Water Board Order 2009-0009-DWQ, NPDES No. CAS000002 (General Construction Permit) and the General Industrial Activities Storm Water Permit, State Water Board Order 97-03 DWQ, NPDES No. CAS000001 (General Industrial Permit) and any reissuance of these permits. NPDES municipal regulations require that municipalities develop and implement measures to address runoff from industrial and construction activities. Those measures may include the implementation of other BMPs in addition to those BMPs that are required under the statewide general permits for activities subject to both State and local regulation.

- b. Identification of sources of pollutants in runoff (such as municipal areas and activities, industrial and commercial sites/sources, construction sites, and residential areas), development and implementation of BMPs to address those sources, and updating ordinances and approval processes are necessary for the Copermittees to ensure that discharges of pollutants from its MS4 in storm water are reduced to the MEP and that non-storm water discharges are not occurring. Inspections and other compliance verification methods are needed to ensure minimum BMPs are implemented. Inspections are especially important at areas that are at high risk for pollutant discharges.
- c. Historic and current development makes use of natural drainage patterns and features as conveyances for runoff. Urban streams used in this manner are part of the municipalities' MS4s regardless of whether they are natural, anthropogenic, or partially modified features. In these cases, the urban stream is both an MS4 and receiving water.
- d. As operators of the MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or otherwise control. These discharges may cause or contribute to a condition of contamination or a violation of water quality standards.
- e. Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the U.S. unless they are removed. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. For this reason, pollutant discharges from storm water into MS4s must be reduced using a combination of management measures, including source control and an effective MS4 maintenance program implemented by each Copermittee.
- f. Enforcement of local runoff related ordinances, permits, and plans is an essential component of every runoff management program and is specifically required in the federal storm water regulations and this Order. Each Copermittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction. Education is an important aspect of every effective runoff management program and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and understand their specific roles and responsibilities for compliance with this

Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions affect receiving water quality and how adverse effects can be minimized.

- g. Public participation during the development of runoff management programs is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.
- h. Retrofitting existing development with storm water treatment controls, including LID, is necessary to address storm water discharges from existing development that may cause or contribute to a condition of pollution or a violation of water quality standards. Although SSMP BMPs are required for redevelopment, the current rate of redevelopment will not address water quality problems in a timely manner. Cooperation with private landowners is necessary to effectively identify, implement and maintain retrofit projects for the preservation, restoration, and enhancement of water quality.

4. Watershed Runoff Management

- a. Since runoff within a watershed can flow from and through multiple land uses and political jurisdictions, watershed-based runoff management can greatly enhance the protection of receiving waters. Such management provides a means to focus on the most important water quality problems in each watershed. By focusing on the most important water quality problems, watershed efforts can maximize protection of beneficial use in an efficient manner. Effective watershed-based runoff management actively reduces pollutant discharges and abates pollutant sources causing or contributing to watershed water quality problems. Watershed-based runoff management that does not actively reduce pollutant discharges and abate pollutant sources causing or contributing to watershed water quality problems can necessitate implementation of the iterative process outlined in section A.3 of this Order. Watershed management of runoff does not require Copermittees to expend resources outside of their jurisdictions. In some cases, however, this added flexibility provides more, and possibly more effective, alternatives for minimizing waste discharges. Watershed management requires the Copermittees within a watershed to develop a watershed-based management strategy, which can then be implemented on a jurisdictional basis.
- b. Some runoff issues, such as general education and training, can be effectively addressed on a regional basis. Regional approaches to runoff management can improve program consistency and promote sharing of resources, which can result in implementation of more efficient programs.

- c. It is important for the Copermitees to coordinate their water quality protection and land use planning activities to achieve the greatest protection of receiving water bodies. Copermitee coordination with other watershed stakeholders, especially the State of California Department of Transportation, the U.S. federal government, sovereign American Indian tribes, and water and sewer districts, is also important.

E. STATUTE AND REGULATORY CONSIDERATIONS

1. The RWL language specified in this Order is consistent with language recommended by the USEPA and established in State Water Board Order WQ-99-05, *Own Motion Review of the Petition of Environmental Health Coalition to Review Waste Discharge Requirements Order No. 96-03, NPDES Permit No. CAS0108740*, adopted by the State Water Board on June 17, 1999. The RWL language in this Order requires compliance with water quality standards, which for storm water discharges is to be achieved through an iterative approach requiring the implementation of improved and better-tailored BMPs over time. Compliance with receiving water limits based on applicable water quality standards is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality standards and the creation of conditions of pollution, contamination, or nuisance.
2. The Basin Plan, identifies the following existing and potential beneficial uses for surface waters in Riverside County: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PROC), Hydropower Generation (POW), Industrial Service Supply (IND), Ground Water Recharge (GWR), Contact Water Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Spawning, Reproduction and/or Early Development (SPWN) and Preservation of Biological Habitats of Special Significance (BIOL).
3. This Order is in conformance with State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California*, and the federal Antidegradation Policy described in 40 CFR 131.12.
4. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Copermitee from developing a non-point source plan, for the urban category, under CZARA. The San Diego Water Board addresses septic systems through the administration of other programs.

5. Section 303(d)(1)(A) of the CWA requires that “Each state shall identify those waters within its boundaries for which the effluent limitations... are not stringent enough to implement any water quality standard (WQS) applicable to such waters.” The CWA also requires states to establish a priority ranking of impaired water bodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired water bodies is called the Section 303(d) List. The 2006 Section 303(d) List was approved by the State Water Board on October 25, 2006. On June 28, 2007, the 2006 303(d) List for California was given final approval by the USEPA. The 303(d) List was recently updated, and on December 16, 2009, the 2008 303(d) List was approved by the San Diego Water Board. The 2008 303(d) List for the San Diego Region was approved by the State Water Board on August 4, 2010. The 2008 303(d) List is awaiting USEPA approval.
6. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIIB, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under CWA §402. (33 U.S.C. § 1342(p)(3)(B).) Second, the local agency Copermittees’ obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental and new dischargers who are issued NPDES permits for storm water and non-storm water discharges. Third, the local agency Copermittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. Fourth, the Copermittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in CWA §301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their MS4 discharges (i.e. effluent limitations). Fifth, the local agencies’ responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under State law predates the enactment of Article XIIB, Section (6) of the California Constitution. Likewise, the provisions of this Order to implement TMDLs are federal mandates. The CWA requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. sec. 1313(d).) Once the USEPA or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable wasteload allocation. (40 C.F.R. sec. 122.44(d)(1)(vii)(B).)
7. Runoff treatment and/or mitigation must occur prior to the discharge of runoff into receiving waters. Treatment BMPs must not be constructed in waters of the U.S. or State unless the runoff flows are sufficiently pretreated to protect the values and functions of the water body. Federal regulations at 40 CFR 131.10(a) state that in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of an runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the

construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. Without federal authorization (e.g., pursuant to CWA § 404), waters of the U.S. may not be converted into, or used as, waste treatment or conveyance facilities. Similarly, waste discharge requirements pursuant to CWC §13260 are required for the conversion or use of waters of the State as waste treatment or conveyance facilities. Diversion from waters of the U.S./State to treatment facilities and subsequent return to waters of the U.S. is allowable, provided that the effluent complies with applicable NPDES requirements.

8. The issuance of waste discharge requirements and an NPDES permit for the discharge of runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 et seq.) in accordance with the CWC section 13389.
9. Storm water discharges from developed and developing areas in Riverside County are significant sources of certain pollutants that cause, may be causing, threatening to cause or contributing to water quality impairment in the waters of Riverside County. Furthermore, as delineated in the CWA section 303(d) list in Table 2, the San Diego Water Board has found that there is a reasonable potential that municipal storm water and non-storm water discharges from MS4s cause or may cause or contribute to an excursion above water quality standards for the following pollutants: Indicator Bacteria (including Fecal Coliform and E. Coli), Copper, Manganese, Iron, Chlorpyrifos, Diazinon, Sulfates, Phosphorous, Nitrogen, Total Dissolved Solids (TDS), and Toxicity. In accordance with CWA section 303(d), the San Diego Water Board is required to establish TMDLs for these pollutants to these waters to eliminate impairment and attain water quality standards. Therefore, certain early pollutant control actions and further pollutant impact assessments by the Copermittees are warranted and required pursuant to this Order.
10. This Order requires each Copermittee to effectively prohibit all types of unauthorized discharges of non-storm water into its MS4. However, historically pollutants have been identified as present in dry weather non-storm water discharges from the MS4s through 303(d) listings, monitoring conducted by the Copermittees under Order No. R9-2004-0001, and there are others expected to be present in dry weather non-storm water discharges because of the nature of these discharges. This Order includes action levels for pollutants in non-storm water, dry weather discharges from the MS4. The non-storm water action levels are designed to ensure that the Order's requirement to effectively prohibit all types of unauthorized discharges of non-storm water into the MS4 is being complied with. Non-storm water action levels in the Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan, the State Water Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and the State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). An exceedance of an action level

requires specified responsive action by the Copermitees. This Order describes what actions the Copermitees must take when an exceedance of an action level is observed. Exceedances of non-storm water action levels do not alone constitute a violation of this Order but could indicate non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4 or other prohibitions established in this Order. Failure to undertake required source investigation and elimination action following an exceedance of a non-storm water action level (NAL or action level) is a violation of this Order. The San Diego Water Board recognizes that use of action levels will not necessarily result in detection of all unauthorized sources of non-storm water discharges because there may be some discharges in which pollutants do not exceed established action levels. However, establishing NALs at levels appropriate to protect water quality standards is expected to lead to the identification of significant sources of pollutants in dry weather non-storm water discharges.

11. In addition to federal regulations cited in the Fact Sheet / Technical Report for the Order No. R9-2010-0016, monitoring and reporting required under Order No. R9-2010-0016 is required pursuant to authority under CWC section 13383.
12. With this Order, the San Diego Water Board has completed the re-issuance of the fourth iteration of the Phase I MS4 NPDES Permits for the Copermitees in the portions of San Diego County, Orange County, and Riverside County within the San Diego Region. The NPDES Permit requirements issued to the Copermitees in each county have substantially the same core requirements such as discharge prohibitions, receiving water limitations, jurisdictional components, and monitoring. In addition, the Copermitees cooperate regionally to develop monitoring with the Southern California Stormwater Monitoring Coalition and to develop program effectiveness with the California Stormwater Quality Association. Regional programs could improve the Copermitees' compliance with other permit components such as development of the Hydromodification Management Plans and Retrofitting Existing Development with more consistent implementation and cost sharing. Re-issuing the NPDES Permit requirements within five years for three counties under three different permits requires the San Diego Water Board to expend significant time and resources for issuance of the permits through three separate public proceedings, thereby greatly reducing the time and resources available to oversee compliance. Multiple permits also create confusion for determining compliance among regulated entities, especially the land development community. The San Diego Water Board recognizes that issuing a single MS4 permit for all Phase I entities in the San Diego Region will provide consistent implementation, improve communication among agencies within watersheds crossing multiple jurisdictions, and minimize staff resources spent with each permit renewal. The San Diego Water Board plans to develop a single regional MS4 permit prior to the expiration of this Order that will transfer the Copermitees' enrollment to the regional permit upon expiration of this Order.

F. PUBLIC PROCESS

1. The San Diego Water Board has notified the Copermitees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing MS4 discharges of pollutants in waters of the U.S.
2. The San Diego Water Board has held a public hearing on November 10, 2010 and heard and considered all comments pertaining to the terms and conditions of this Order.

IT IS HEREBY ORDERED that the Copermittees, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the CWA and regulations adopted thereunder, must each comply with the following:

A. PROHIBITIONS AND RECEIVING WATER LIMITATIONS

1. Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 13050), in receiving waters of the state are prohibited.³
2. Storm water discharges from MS4s containing pollutants which have not been reduced to the MEP are prohibited.³
3. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses, water quality objectives developed to protect beneficial uses, and the State policy with respect to maintaining high quality waters) are prohibited.
 - a. Each Copermittee must comply with section A.3 and section A.4 as it applies to Prohibition 5 in Attachment A of this Order through timely implementation of control measures and other actions to reduce pollutants in storm water discharges in accordance with this Order, including any modifications. If exceedance(s) of water quality standards persist notwithstanding implementation of this Order, the Copermittee must assure compliance with section A.3 and section A.4 as it applies to Prohibition 5 in Attachment A of this Order by complying with the following procedure:
 - (1) Upon a determination by either the Copermittee or the San Diego Water Board that storm water MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Copermittee must notify the San Diego Water Board within 30 days and thereafter submit a report to the San Diego Water Board that describes best management practices (BMPs) that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the Annual Report unless the San Diego Water Board⁴ directs an earlier submittal. The report must include an implementation

³ This prohibition does not apply to MS4 discharges which receive subsequent treatment to reduce pollutants in storm water discharges to the MEP prior to entering receiving waters (e.g., low flow diversions to the sanitary sewer). Runoff treatment and/or mitigation must occur prior to the discharge of runoff into receiving waters per finding E.7.

⁴ The San Diego Water Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to CWC §13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order unless such delegation is unlawful under CWC §13223 or this Order explicitly states otherwise.

- schedule. The San Diego Water Board may require modifications to the report
- (2) Submit any modifications to the report required by the San Diego Water Board within 30 days of notification;
 - (3) Within 30 days following acceptance of the report described above by the San Diego Water Board, the Copermittee must revise its JRMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required; and
 - (4) Implement the revised JRMP and monitoring program in accordance with the approved schedule.
- b. The Copermittee must repeat the procedure set forth above to comply with the receiving water limitations for continuing or recurring exceedances of the same water quality standard(s) following implementation of scheduled actions unless directed to do otherwise by the San Diego Water Board's Executive Officer.
 - c. Nothing in section A.3 prevents the San Diego Water Board from enforcing any provision of this Order while the Copermittee prepares and implements the above report.
4. In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in Attachment A to this Order.

B. NON-STORM WATER DISCHARGES

1. Each Copermittee must effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate NPDES permit; or not prohibited in accordance with sections B.2 and B.3 below.
2. The following categories of non-storm water discharges are not prohibited unless a Copermittee or the San Diego Water Board identifies the discharge category as a source of pollutants to waters of the U.S. Where the Copermittee(s) have identified a category as a source of pollutants, the category must be addressed as an illicit discharge and prohibited through ordinance, order or similar means. The San Diego Water Board may identify categories of discharge that either require prohibition, or other controls for non-anthropogenic sources. For a discharge category determined to be a source of pollutants, the Copermittee, under direction of the San Diego Water Board, must either prohibit the discharge category or develop and implement appropriate control measures for non-anthropogenic sources to prevent the discharge of pollutants to the MS4 and report to the San Diego Water Board pursuant to Section K.1 and K.3 of this Order. The discharge categories are:

- a. Diverted stream flows;
 - b. Rising ground waters;
 - c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
 - d. Uncontaminated pumped ground water⁵;
 - e. Foundation drains⁵;
 - f. Springs;
 - g. Water from crawl space pumps⁵;
 - h. Footing drains⁵;
 - i. Air conditioning condensation;
 - j. Flows from riparian habitats and wetlands;
 - k. Water line flushing^{6,7};
 - l. Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks;
 - m. Individual residential car washing; and
 - n. Dechlorinated swimming pool discharges⁸.
3. Emergency fire fighting flows (i.e., flows necessary for the protection of life or property) do not require BMPs and need not be prohibited.
- a. As part of the JRMP, each Copermittee must develop and implement a program to address pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes and maintenance activities) identified as significant sources of pollutants to waters of the U.S.
 - b. Building fire suppression system maintenance discharges (e.g. sprinkler line flushing) contain waste. Therefore, such discharges are to be prohibited by the Copermittees as illicit discharges through ordinance, order, or similar means.
4. Each Copermittee must examine all dry weather effluent analytical monitoring results collected in accordance with section F.4 of this Order and Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in section B.2. Follow-up investigations must be conducted to identify and control, pursuant to section B.2, any non-prohibited discharge category(ies) listed above.

⁵ Requires enrollment under Order R9-2008-002. Discharges into the MS4 require authorization from the owner and operator of the MS4 system.

⁶ This exemption does not include fire suppression sprinkler system maintenance and testing discharges. Those discharges may be regulated under Section B.3.

⁷ Requires enrollment under Order R9-2002-0020.

⁸ Excluding saline swimming pool discharges.

C. NON-STORM WATER DRY WEATHER ACTION LEVELS

1. Each Copermitttee, beginning no later than July 1, 2012, must implement the non-storm water dry weather action level (NAL) monitoring as described in Attachment E of this Order.
2. In response to an exceedance of an NAL, the Copermitttee(s) having jurisdiction must investigate and seek to identify the source of the exceedance in a timely manner. However, if any Copermitttee identifies a number of NAL exceedances that prevents it from adequately conducting source investigations at all sites in a timely manner, then that Copermitttee may submit a prioritization plan and timeline that identifies the timeframe and planned actions to investigate and report its findings on all of the exceedances. Depending on the source of the pollutant exceedance, the Copermitttee(s) having jurisdiction must take action as follows:
 - a. If the Copermitttee identifies the source of the exceedance as natural (non-anthropogenically influenced) in origin and in conveyance into the MS4; then the Copermitttee must report its findings and documentation of its source investigation to the San Diego Water Board in its Annual Report.
 - b. If the Copermitttee identifies the source of the exceedance as an illicit discharge or connection, then the Copermitttee must eliminate the discharge to its MS4 pursuant to Section F.4.f and report the findings, including any enforcement action(s) taken, and documentation of the source investigation to the San Diego Water Board in the Annual Report. If the Copermitttee is unable to eliminate the source of discharge prior to the Annual Report submittal, then the Copermitttee must submit, as part of its Annual Report, its plan and timeframe to eliminate the source of the exceedance. Those dischargers seeking to continue such a discharge must become subject to a separate NPDES permit prior to continuing any such discharge.
 - c. If the Copermitttee identifies the source of the exceedance as an exempted category of non-storm water discharge, then the Copermitttees must determine if this is an isolated circumstance or if the category of discharges must be addressed through the prevention or prohibition of that category of discharge as an illicit discharge. The Copermitttee must submit its findings including a description of the steps taken to address the discharge and the category of discharge, to the San Diego Water Board for review in its Annual Report. Such description must include relevant updates to or new ordinances, orders, or other legal means of addressing the category of discharge, and the anticipated schedule for doing so. The Copermitttees must also submit a summary of its findings with the Report of Waste Discharge.
 - d. If the Copermitttee identifies the source of the exceedance as a non-storm water discharge in violation or potential violation of an existing separate NPDES permit

(e.g. the groundwater dewatering permit), then the Copermittee must report, within three business days, the findings to the San Diego Water Board including all pertinent information regarding the discharger and discharge characteristics.

- e. If the Copermittee is unable to identify the source of the exceedance after taking and documenting reasonable steps to do so, then the Copermittee must perform additional focused sampling. If the results of the additional sampling indicate a recurring exceedance of NALs with an unidentified source, then the Copermittee must update its programs within a year to address the common contributing sources that may be causing such an exceedance. The Copermittee's annual report must include these updates to its programs including, where applicable, updates to their watershed workplans (Section G.2), retrofitting consideration (Section F.3.d) and program effectiveness work plans (Section J.4).
 - f. The Copermittees, or any interested party, may evaluate existing NALs and propose revised NALs for future Board consideration.
3. NALs can help provide an assessment of the effectiveness of the prohibition of non-storm water discharges and of the appropriateness of exempted non-storm water discharges. An exceedance of an NAL does not alone constitute a violation of the provisions of this Order. An exceedance of an NAL may indicate a lack of compliance with the requirement that Copermittees effectively prohibit all types of unauthorized non-storm water discharges into the MS4 or other prohibitions set forth in Sections A and B of this Order. Failure to timely implement required actions specified in this Order following an exceedance of an NAL constitutes a violation of this Order. Neither the absence of exceedances of NALs nor compliance with required actions following observed exceedances, excuses any non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4s or any non-compliance with the prohibitions in Sections A and B of this Order. During any annual reporting period in which one or more exceedances of NALs have been documented the Copermittee must report in response to Section C.2 above, a description of whether and how the observed exceedances did or did not result in a discharge from the MS4 that caused, or threatened to cause or contribute to a condition of pollution, contamination, or nuisance in the receiving waters.
4. Monitoring of effluent will occur at the end-of-pipe prior to discharge into the receiving waters, with a focus on Major Outfalls, as defined in 40 CFR 122.26(B 5-6) and Attachment E of this Order. The Copermittees must develop their monitoring plans to sample a representative percentage of major outfalls and identified stations within each hydrologic subarea. At a minimum, outfalls that exceed any NALs once during any year must be monitored in the subsequent year. Any station that does not exceed an NAL, or only has exceedances that are identified as natural in origin and conveyance into the MS4 pursuant to Section C.2.a, for 3 successive years may be replaced with a different station.

5. Each Copermittee must monitor for the non-storm water dry weather action levels, which are incorporated into this Order as follows:

Action levels for discharges to inland surface waters:

Table 3.a: General Constituents

Parameter	Units	AMAL	MDAL	Instantaneous Maximum	Basis
Fecal Coliform	MPN/ 100 ml	200 ^A 400 ^B	-		BPO
Enterococci	MPN/ 100 ml	33	-	61 ^C	BPO
Turbidity	NTU	-	20		BPO
pH	Units	Within limit of 6.5 to 8.5 at all times			BPO
Dissolved Oxygen	mg/L	Not less than 5.0 in WARM waters and not less than 6.0 in COLD waters			BPO
Total Nitrogen	mg/L	-	1.0	See MDAL	BPO
Total Phosphorus	mg/L	-	0.1	See MDAL	BPO
Methylene Blue Active Substances	mg/L	-	0.5	See MDAL	BPO
Iron	mg/L	-	0.3	See MDAL	BPO
Manganese	mg/L	-	0.05	See MDAL	BPO

A – Based on a minimum of not less than five samples for any 30-day period

B – No more than 10 percent of total samples may exceed 400 per 100 ml during any 30 day period

C – This Value has been set to Basin Plan Criteria for Designated Beach Areas

BPO – Basin Plan Objective

MDAL – Maximum Daily Action Level

AMAL – Average Monthly Action Level

Table 3.b: Priority Pollutants

Parameter	Units	Freshwater (CTR)	
		MDAL	AMAL
Cadmium	ug/L	**	**
Copper	ug/L	*	*
Chromium III	ug/L	**	**
Chromium VI (hexavalent)	ug/L	16	8.1
Lead	ug/L	*	*
Nickel	ug/L	**	**
Silver	ug/L	*	*
Zinc	ug/L	*	*

CTR – California Toxic Rule

*- Action Levels developed on a case-by-case basis (see below)

**- Action Levels developed on a case-by-case basis (see below), but calculated criteria are not to exceed Maximum Contaminant Levels under the California Code of Regulations⁹

⁹ California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64431.

The NALs for Cadmium, Copper, Chromium (III), Lead, Nickel, Silver and Zinc will be developed on a case-by-case basis because the freshwater criteria are based on site-specific water quality data (receiving water hardness). For these priority pollutants, the following equations (40 CFR 131.38.b.2) will be required:

Cadmium (Total Recoverable)	= $\exp(0.7852[\ln(\text{hardness})] - 2.715)$
Chromium III (Total Recoverable)	= $\exp(0.8190[\ln(\text{hardness})] + .6848)$
Copper (Total Recoverable)	= $\exp(0.8545[\ln(\text{hardness})] - 1.702)$
Lead (Total Recoverable)	= $\exp(1.273[\ln(\text{hardness})] - 4.705)$
Nickel (Total Recoverable)	= $\exp(.8460[\ln(\text{hardness})] + 0.0584)$
Silver (Total Recoverable)	= $\exp(1.72[\ln(\text{hardness})] - 6.52)$
Zinc (Total Recoverable)	= $\exp(0.8473[\ln(\text{hardness})] + 0.884)$

D. STORM WATER ACTION LEVELS

1. The Copermittees must implement the Wet Weather MS4 Discharge Monitoring as described in Attachment E of this Order, and beginning three years after the Order adoption date, the Copermittees must annually evaluate their data compared to the Stormwater Action Levels (SALs). At each monitoring station, a running average of twenty percent or greater of exceedances of any discharge of storm water from the MS4 to waters of the U.S. that exceed the SALs for each of the pollutants listed in Table 4 (below) requires the Copermittee(s) having jurisdiction to affirmatively augment and implement all necessary storm water controls and measures to reduce the discharge of the associated class of pollutant(s) to the MEP. The Copermittees must utilize the exceedance information when adjusting and executing annual work plans, as required by this Order. Copermittees must take the magnitude, frequency, and number of constituents exceeding the SAL(s), in addition to receiving water quality data and other information, into consideration when prioritizing and reacting to SAL exceedances in an iterative manner. Failure to appropriately consider and react to SAL exceedances in an iterative manner creates a presumption that the Copermittee(s) have not reduced pollutants in storm water discharges to the MEP.

Table 4. Storm Water Action Levels

Pollutant	Action Level
Turbidity (NTU)	126
Nitrate & Nitrite total (mg/L)	2.6
P total (mg/L)	1.46
Cd total (µg/L)	3.0
Cu total (µg/L)	127
Pb total (µg/L)	250
Zn total (µg/L)	976

2. The end-of-pipe assessment points for the determination of SAL compliance are major outfalls, as defined in 40 CFR 122.26(b)(5) and (b)(6) and Attachment E of this Order. The Copermittees must develop their monitoring plans to sample a representative percentage of the major outfalls within each hydrologic subarea. At a minimum, outfalls that exceed SALs must be monitored in the subsequent year. Any station that does not exceed an SAL for 3 successive years may be replaced with a different station. SAL samples must be 24 hour time-weighted composites.
3. The absence of SAL exceedances does not relieve the Copermittees from implementing all other required elements of this Order.
4. This Order does not regulate natural sources and conveyances into the MS4 of constituents listed in Table 5. To be relieved of the requirements to take action as described in D.1 above, the Copermittee must demonstrate that the likely and expected cause of the SAL exceedance is not anthropogenic in nature. This demonstration does not need to be repeated for subsequent exceedances of the same SAL at the same monitoring station.
5. The SALs will be reviewed and updated at the end of every permit cycle. The data collected pursuant to D.2 above and Attachment E can be used to create SALs based upon local data. The purpose of establishing the SALs is that through the iterative and MEP process, outfall storm water discharges will meet all applicable water quality standards.

E. LEGAL AUTHORITY

1. Each Copermittee must establish, maintain, and enforce adequate legal authority within its jurisdiction to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. Nothing herein shall authorize a Copermittee or other discharger regulated under the terms of this order to divert, store or otherwise impound water if such action is reasonably anticipated to harm downstream water rights holders in the exercise of their water rights. This legal authority must, at a minimum, authorize the Copermittee to:
 - a. Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to its MS4 and control the quality of runoff from industrial and construction sites. This requirement applies both to industrial and construction sites which have coverage under the statewide general industrial or construction storm water permits, as well as to those sites which do not. Grading ordinances must be updated and enforced as necessary to comply with this Order;
 - b. Prohibit all identified illicit discharges not otherwise allowed pursuant to section B.2;
 - c. Prohibit and eliminate illicit connections to the MS4;

- d. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
 - e. Require compliance with conditions in Copermittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
 - f. Utilize enforcement mechanisms to require compliance with Copermittee storm water ordinances, permits, contracts, or orders;
 - g. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees;
 - h. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation, the U.S. federal government, or sovereign Native American Tribes is encouraged;
 - i. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Copermittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from industrial facilities discharging into its MS4, including construction sites;
 - j. Require the use of BMPs to prevent or reduce the discharge of pollutants into MS4s from storm water to the MEP; and
 - k. Require documentation on the effectiveness of BMPs implemented to reduce the discharge of storm water pollutants to the MS4 to the MEP.
2. Each Copermittee must submit on or before June 30, 2012, a statement certified by its chief legal counsel that the Copermittee has taken the necessary steps to obtain and maintain full legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order. These statements must include:
- a. Citation of runoff related ordinances and the reasons they are enforceable;
 - b. Identification of the local administrative and legal procedures available to mandate compliance with runoff related ordinances and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system; and
 - c. A brief description of how runoff related ordinances are adopted and the process by which they may be challenged.

F. JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP)

Each Copermittee must implement all requirements of section F of this Order no later than July 1, 2012, unless otherwise specified. Upon adoption of this Order and until an updated JRMP is developed and implemented or July 1, 2012, whichever occurs first, each Copermittee must at a minimum implement its JRMP document, as the document was developed and amended to comply with the requirements of Order No. R9-2004-001.

Each Copermittee must develop and implement an updated JRMP for its jurisdiction no later than July 1, 2012. Each updated JRMP must meet the requirements of section F of this Order, reduce the discharge of storm water pollutants from the MS4 to the MEP, effectively prohibit non-storm water discharges, and prevent runoff discharges from the MS4 from causing or contributing to a violation of water quality standards. In addition, each Copermittee's JRMP must identify all departments and positions within its jurisdiction that conduct runoff related activities, and their roles and responsibilities under this Order. This identification must include an up to date organizational chart specifying these departments and key personnel.

1. DEVELOPMENT PLANNING COMPONENT

Each Copermittee must implement a program which meets the requirements of this section and (1) reduces Development Project discharges of storm water pollutants from the MS4 to the MEP; (2) prevents Development Project discharges from the MS4 from causing or contributing to a violation of water quality standards; (3) prevents illicit discharges into the MS4; and (4) manages increases in runoff discharge rates and durations from Development Projects that are likely to cause increased erosion of stream beds and banks, silt pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

a. GENERAL PLAN

Each Copermittee must revise as needed its General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) to include water quality and watershed protection principles and policies that direct land-use decisions and require implementation of consistent water quality protection measures for all development, redevelopment, and retrofit projects. Examples of water quality and watershed protection principles and policies to be considered include the following:

- (1) Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.

- (2) Implement pollution prevention methods supplemented by pollutant source controls and treatment BMPs. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.
- (3) Preserve, and where possible, create, or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- (4) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
- (5) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of BMPs to mitigate the projected increases in pollutant loads and flows.
- (6) Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.
- (7) Reduce pollutants associated with vehicles and increasing traffic resulting from development.
- (8) Post-development runoff from a site must not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the MEP.

b. ENVIRONMENTAL REVIEW PROCESS

Each Copermittee must revise as needed its current environmental review processes to accurately evaluate water quality impacts and cumulative impacts and identify appropriate measures to avoid, minimize, and mitigate those impacts for all Development Projects.

c. APPROVAL PROCESS CRITERIA AND REQUIREMENTS FOR ALL DEVELOPMENT PROJECTS

For all proposed Development Projects, each Copermittee, during the planning process, and prior to project approval and issuance of local permits, must prescribe the necessary requirements so that Development Project discharges of storm water pollutants from the MS4 will be reduced to the MEP, will not cause or

contribute to a violation of water quality standards, and will comply with the Copermittee's ordinances, permits, plans, and requirements, and with this Order.

Performance Criteria: Discharges from each approved development project must be subject to the following management measures:

- (1) Source control BMPs that reduce storm water pollutants of concern in runoff; prevent illicit discharges into the MS4; prevent irrigation runoff; storm drain system stenciling or signage; properly design outdoor material storage areas; properly design outdoor work areas; and properly design trash storage areas.
- (2) The following LID BMPs listed below must be implemented at all Development Projects where applicable and feasible.
 - (a) Conserve natural areas, including existing trees, other vegetation, and soils;
 - (b) Construct streets, sidewalks, or parking lot aisles to the minimum widths necessary, provided that public safety is not compromised;
 - (c) Minimize the impervious footprint of the project;
 - (d) Minimize soil compaction to landscaped areas;
 - (e) Minimize disturbances to natural drainages (e.g., natural swales, topographic depressions, etc.); and
 - (f) Disconnect impervious surfaces through distributed pervious areas.
- (3) Buffer zones for natural water bodies, where technically feasible. Where buffer zones are technically infeasible, require project proponent to implement other buffers such as trees, access restrictions, etc.
- (4) Other measures necessary so that grading or other construction activities meet the provisions specified in section F.2 of this Order.
- (5) Submittal of documentation of a mechanism under which ongoing long-term maintenance of all structural post-construction BMPs will be conducted.
- (6) Infiltration and Groundwater Protection

To protect groundwater quality, each Copermittee must apply restrictions to the use of treatment control BMPs that are designed to primarily function as large, centralized infiltration devices (such as large infiltration trenches and infiltration basins). Such restrictions must be designed so that the use of such infiltration treatment control BMPs does not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, each treatment control BMP designed to primarily function as a centralized infiltration device must meet the restrictions below, unless the Development Project demonstrates to the Copermittee that a restriction is not necessary to protect groundwater quality. The Copermittees may collectively or individually

develop alternative restrictions on the use of treatment control BMPs which are designed to primarily function as centralized infiltration devices. Alternative restrictions developed by the Copermittees can partially or wholly replace the restrictions listed below. The restrictions do not apply to small infiltration systems dispersed throughout a development project.

- (a) Runoff must undergo pretreatment such as sedimentation or filtration prior to infiltration;
 - (b) All dry weather flows containing significant pollutant loads must be diverted from infiltration devices and treated through other BMPs;
 - (c) Pollution prevention and source control BMPs must be implemented at a level appropriate to protect groundwater quality at sites where infiltration treatment control BMPs are to be used;
 - (d) Infiltration treatment control BMPs must be adequately maintained so that they remove storm water pollutants to the MEP;
 - (e) The vertical distance from the base of any infiltration treatment control BMP to the seasonal high groundwater mark must be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained;
 - (f) The soil through which infiltration is to occur must have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of runoff for the protection of groundwater beneficial uses;
 - (g) Infiltration treatment control BMPs must not be used for areas of industrial or light industrial activity; and other high threat to water quality land uses and activities as designated by each Copermittee unless first treated or filtered to remove pollutants prior to infiltration; and
 - (h) Infiltration treatment control BMPs must be located a minimum of 100 feet horizontally from any water supply wells.
- (7) Where feasible, landscaping with native or low water species shall be preferred in areas that drain to the MS4 or to waters of the U.S.
- (8) Rain water harvesting and water reuse, where feasible, must be encouraged as part of the site design and construction to reduce pollutants in storm water discharges to the MEP.

**d. STANDARD STORM WATER MITIGATION PLANS (SSMPs) – APPROVAL PROCESS
CRITERIA AND REQUIREMENTS FOR PRIORITY DEVELOPMENT PROJECTS**

On or before June 30, 2012, the Copermittees must submit an updated SSMP, to the San Diego Water Board's Executive Officer for a 30 day public review and comment period. The San Diego Water Board's Executive Officer has the discretion to determine whether to hold a public hearing or to limit public input to written comments. Within 180 days of determination that the SSMP is in compliance with this Order's provisions, each Copermittee must amend its local ordinances consistent with the updated SSMP, and begin implementing the updated SSMP. Any updated local ordinances must be submitted to the San Diego Water Board with the Annual Report. The SSMP must meet the requirements of section F.1.d of this Order to (1) reduce Priority Development Project discharges of storm water pollutants from the MS4 to the MEP, and (2) prevent Priority Development Project runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.¹⁰

(1) Definition of Priority Development Project:

Priority Development Projects are:

- (a) All new Development Projects that fall under the project categories or locations listed in section F.1.d.(2), and
- (b) Those redevelopment projects that create, add, or replace at least 5,000 square feet of impervious surfaces on an already developed site and the existing development and/or the redevelopment project falls under the project categories or locations listed in section F.1.d.(2). Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SSMP requirements, the numeric sizing criteria discussed in section F.1.d.(6) applies only to the addition or replacement, and not to the entire development. Where redevelopment

¹⁰ Updated SSMP and hydromodification requirements must apply to all priority projects or phases of priority projects which have not yet begun grading or construction activities at the time any updated SSMP or hydromodification requirement commences. If lawful prior approval of a project exists, whereby application of an updated SSMP or hydromodification requirement to the project is illegal, the updated SSMP or hydromodification requirement need not apply to the project. Updated Development Planning requirements set forth in Sections F.1. (a) through (h) of this Order must apply to all projects or phases of projects, unless, at the time any updated Development Planning requirement commences, the projects or project phases meet any one of the following conditions: (i) the project or phase has begun grading or construction activities; or (ii) a Copermittee determines that lawful prior approval rights for a project or project phase exist, whereby application of the Updated Development Planning requirement to the project is legally infeasible. Where feasible, the Permittees must utilize the SSMP and hydromodification update periods to ensure that projects undergoing approval processes include application of the updated SSMP and hydromodification requirements in its plans.

results in an increase of more than fifty percent of the impervious surfaces of a previously existing development, the numeric sizing criteria applies to the entire development.

- (c) One acre threshold: In addition to the Priority Development Project Categories identified in section F.1.d.(2), Priority Development Projects must also include all other post-construction pollutant-generating new Development Projects that result in the disturbance of one acre or more of land by July 1, 2012.¹¹

(2) Priority Development Project Categories

Where a new Development Project feature, such as a parking lot, falls into a Priority Development Project Category, the entire project footprint is subject to SSMP requirements.

- (a) New development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site) including commercial, industrial, residential, mixed-use, and public projects. This category includes development projects on public or private land which fall under the planning and building authority of the Copermittees.
- (b) Automotive repair shops. This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.
- (c) Restaurants. This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet must meet all SSMP requirements except for structural treatment BMP and numeric sizing criteria requirement F.1.d.(6) and hydromodification requirement F.1.h.
- (d) All hillside development greater than 5,000 square feet. This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.
- (e) Environmentally Sensitive Areas (ESAs). All development located within, or directly adjacent to, or discharging directly to an ESA (where

¹¹ Pollutant generating Development Projects are those projects that generate pollutants at levels greater than natural background levels.

discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10 percent or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.

- (f) Impervious parking lots 5,000 square feet or more and potentially exposed to runoff. Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
- (g) Street, roads, highways, and freeways. This category includes any paved impervious surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles. To the extent that the Copermittees develop revised standard roadway design and post-construction BMP guidance that comply with the provisions of Section F.1 of the Order, then public works projects that implement the revised standard roadway sections do not have to develop a project specific SSMP. The standard roadway design and post-construction BMP guidance must be submitted with the Copermittee's updated SSMP.
- (h) Retail Gasoline Outlets (RGOs). This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day.

(3) Pollutants of Concern

As part of its local SSMP, each Copermittee must implement an updated procedure for identifying pollutants of concern for each Priority Development Project. The procedure must address, at a minimum: (1) Receiving water quality (including pollutants for which receiving waters are listed as impaired under CWA section 303(d)); (2) Land-use type of the Development Project and pollutants associated with that land use type; and (3) Pollutants expected to be present on site.

(4) Low Impact Development BMP Requirements

Each Copermittee must require each Priority Development Project to implement LID BMPs which will collectively minimize directly connected impervious areas, limit loss of existing infiltration capacity, and protect areas that provide important water quality benefits necessary to maintain riparian and aquatic biota, and/or are particularly susceptible to erosion and sediment loss.

- (a) The Copermittees must take the following measures to ensure that LID BMPs are implemented at Priority Development Projects:
- (i) Each Copermittee must require LID BMPs or make a finding of technical infeasibility for each Priority Development Project in accordance with the LID waiver program in Section F.1.d.(7);
 - (ii) Each Copermittee must incorporate formalized consideration, such as thorough checklists, ordinances, and/or other means, of LID BMPs into the plan review process for Priority Development Projects; and
 - (iii) On or before July 1, 2012, each Copermittee must review its local codes, policies, and ordinances and identify barriers therein to implementation of LID BMPs. Following the identification of these barriers to LID implementation, where feasible, the Copermittee must take, by the end of the permit cycle, appropriate actions to remove such barriers. The Copermittees must include this review with the updated JRMP.
- (b) The following LID BMPs must be implemented at each Priority Development Project:
- (i) Maintain or restore natural storage reservoirs and drainage corridors (including depressions, areas of permeable soils, swales, and ephemeral and intermittent streams) to the extent feasible¹².
 - (ii) Projects with landscaped or other pervious areas must, where feasible, properly design and construct the pervious areas to effectively receive and infiltrate, retain and/or treat runoff from impervious areas, prior to discharge to the MS4. Soil compaction for these areas must be minimized. The amount of the impervious areas that are to drain to pervious areas must be based upon the total size, soil conditions, slope, and other pertinent factors.
 - (iii) Projects with low traffic areas and appropriate soil conditions must be constructed with permeable surfaces.

¹² Priority Development Projects proposing to dredge or fill materials in waters of the U.S. must obtain a CWA Section 401 Water Quality Certification. Priority Development Projects proposing to dredge or fill waters of the State must obtain Waste Discharge Requirements.

(c) LID BMPs sizing criteria:

- (i) LID BMPs must be sized and designed to ensure onsite retention without runoff, of the volume of runoff produced from a 24-hour 85th percentile storm event¹³ ("design capture volume");
- (ii) If onsite retention¹⁴ LID BMPs are technically infeasible per section F.1.d.(7)(b), other LID BMPs may treat any volume that is not retained onsite provided that the total volume of the other LID BMPs, including pore spaces and pre-filter detention volume, are sized to hold at least 0.75 times the portion of the design capture volume that is not retained onsite. The LID BMPs must be designed for an appropriate surface loading rate to prevent erosion, scour and channeling within the BMP.

(d) If it is shown to be technically infeasible per Section F.1.d.(7)(b) to retain and/or treat the remaining volume up to and including the design capture volume using LID BMPs, then the project must implement conventional treatment control BMPs in accordance with Section F.1.d.(6) below and must participate in the LID waiver program in Section F.1.d.(7).

(e) All LID BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies.

(5) Source Control BMP Requirements

Each Copermittee must require each Priority Development Project to implement applicable source control BMPs. The source control BMPs to be required must:

- (a) Prevent illicit discharges into the MS4;
- (b) Minimize storm water pollutants of concern in runoff;
- (c) Eliminate irrigation runoff;

¹³ This volume is not a single volume to be applied to all of Riverside County. The size of the 85th percentile storm event is different for various parts of the County. The Copermittees are encouraged to calculate the 85th percentile storm event for each of its jurisdictions using local rain data pertinent to its particular jurisdiction (0.6 inch standard is a rough average for the County and should only be used where appropriate rain data is not available). In addition, isopluvial maps may be used to extrapolate rainfall data to areas where insufficient data exists in order to determine the volume of the local 85th percentile storm event in such areas. Where the Copermittees will use isopluvial maps to determine the 85th percentile storm event in areas lacking rain data, the Copermittees must describe their method for using isopluvial maps in its SSMPs.

¹⁴ Infiltration LID BMPs are the preferred method for onsite retention, but does not preclude the use and implementation of all other retention LID BMPs (e.g. evapotranspiration, evaporation, and/or harvest), where technically feasible, prior to considering biofiltration LID BMPs for treatment of the design capture volume that is not otherwise retained onsite.

- (d) Include storm drain system stenciling or signage;
- (e) Include properly designed outdoor material storage areas;
- (f) Include properly designed outdoor work areas;
- (g) Include properly designed trash storage areas; and
- (h) Include water quality protection requirements applicable to individual priority project categories.

(6) Treatment Control BMP Requirements

Each Copermittee must require each Priority Development Project that meets the Copermittee's technical infeasibility criteria in Section F.1.d(7) below, to implement conventional treatment control BMPs to treat the portion of the "design capture volume" that was not treated by LID BMPs per Section F.1.d(4) above. Conventional treatment control BMPs must meet the following requirements:

- (a) All treatment control BMPs for a single Priority Development Project must collectively be sized to comply with the following numeric sizing criteria:
 - (i) Volume-based treatment control BMPs must be designed to mitigate (infiltrate, filter, or treat) the remaining portion of the design capture volume that was not retained and/or treated with LID BMPs; or
 - (ii) Flow-based treatment control BMPs must be designed to mitigate (filter, or treat) either: a) the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event; or b) the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity (for each hour of a storm event), as determined from the local historical rainfall record, multiplied by a factor of two.
- (b) All treatment control BMPs for Priority Development Projects must, at a minimum:
 - (i) Be ranked with high or medium pollutant removal efficiency for the project's most significant pollutants of concern, as the pollutant removal efficiencies are identified in the Copermittees' SSMP. Treatment control BMPs with a low removal efficiency ranking must only be approved by a Copermittee when a feasibility analysis has been conducted which exhibits that implementation of treatment control BMPs with high or medium removal efficiency rankings are infeasible for a Priority Development Project or portion of a Priority Development Project.
 - (ii) Be correctly sized and designed so as to remove storm water pollutants to the MEP.

- (c) Target removal of pollutants of concern from runoff.
- (d) Be implemented close to pollutant sources, and prior to discharging into waters of the U.S.
- (e) Include proof of a mechanism under which ongoing long-term maintenance will be conducted to ensure proper maintenance for the life of the project. The mechanisms may be provided by the project proponent or Copermittee.
- (f) Be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies.

(7) Low Impact Development (LID) BMP Waiver Program

The Copermittees must develop, collectively or individually, a LID waiver program for incorporation into the SSMP, which would allow a Priority Development Project to substitute implementation of all or a portion of required LID BMPs in Section F.1.d(4) with implementation of treatment control BMPs and either 1) on-site mitigation, 2) an off-site mitigation project, and/or 3) other mitigation developed by the Copermittees. The Copermittees must submit the LID waiver program as part of their updated SSMP. At a minimum, the program must meet the requirements below:

- (a) Prior to implementation, the LID waiver program must clearly exhibit that it will not allow Priority Development Projects to result in a net impact (after consideration of any mitigation) from pollutant loadings over and above the impact caused by projects meeting the onsite LID retention requirements;
- (b) For each Priority Development Project participating, the Copermittee must find that it is technically infeasible to implement LID BMPs that comply with the requirements of Section F.1.(d)(4). The Copermittee(s) must develop criteria to determine the technical feasibility of implementing LID BMPs. Each Priority Development Project participating must demonstrate that LID BMPs were implemented as much as feasible given the site's unique conditions. Technical infeasibility may result from conditions including, but not limited to:
 - (i) Locations that cannot meet the infiltration and groundwater protection requirements in section F.1.c.(6) for large, centralized infiltration BMPs. Where infiltration is technically infeasible, the project must still examine the feasibility of other onsite LID BMPs;
 - (ii) Insufficient demand for storm water reuse;

- (iii) Smart growth and infill or redevelopment locations where the density and/or nature of the project would create significant difficulty for compliance with the LID BMP requirements; and
 - (iv) Other site, geologic, soil, or implementation constraints identified in the Copermittees updated SSMP document.
- (c) Each Priority Development Project that participates in the LID waiver program must mitigate for the pollutant loads expected to be discharged due to not implementing the LID retention BMPs in section F.1.d.(4). The pollutant loading must be estimated for each project participating in the LID waiver program. The estimated impacts from not implementing the required LID retention BMPs in section F.1.d.(4) must be fully mitigated. Mitigation projects must be implemented within the same hydrologic unit as the Priority Development Project. Mitigation projects outside of the hydrologic subarea but within the same hydrologic unit may be approved provided that the project proponent demonstrates that mitigation projects within the same hydrologic subarea are infeasible and that the mitigation project will address similar beneficial use impacts as expected from the Priority Development Projects pollutant load. Onsite mitigation may include increasing the conventional treatment sizing factors to achieve pollutant load removal equal to or greater than the pollutant load removal expected from implementing onsite retention of the design capture volume. Offsite mitigation projects may include green streets projects, existing development retrofit projects, retrofit incentive programs, regional BMPs and/or riparian restoration projects. Project applicants seeking to utilize these alternative compliance provisions may propose other offsite mitigation projects, which the Copermittees may approve if they meet the requirements of this subpart.
- (d) A Copermittee may choose to implement additional mitigation programs (e.g., pollutant credit system, mitigation fund) as part of the LID waiver program provided that the mitigation program clearly exhibits that it will not allow Priority Development Projects to result in a net impact from pollutant loadings over and above the impact caused by projects meeting LID requirements. Any additional mitigation programs that a Copermittee chooses to implement must be submitted to the San Diego Water Board Executive Officer for review and acceptance prior to implementation.

(8) LID and Treatment Control BMP Standards

- (a) As part of the SSMP, each Copermittee must develop and require Priority Development Projects to implement siting, design, and maintenance criteria for each LID and treatment control BMP listed in the SSMP to determine feasibility and applicability and so that implemented LID and treatment control BMPs are constructed correctly and are effective at pollutant removal, runoff control, and vector minimization. Development of

BMP design worksheets which can be used by project proponents is encouraged.

- (b) LID and treatment control BMPs implemented at any Priority Development Projects must mitigate (treat through infiltration, settling, filtration or other unit processes) the required volume or flow of runoff from all developed portions of the project, including landscaped areas.
- (c) All LID and treatment control BMPs must be located so as to remove pollutants from runoff prior to its discharge to any receiving waters. Multiple Priority Development Projects may use shared post-construction BMPs as long as construction of any shared BMP is completed prior to the use or occupation of any Priority Development Project from which the BMP will receive runoff. Post construction BMPs must not be constructed within a waters of the U.S. or waters of the State.

(9) Implementation Process

- (a) As part of its local SSMP, each Copermittee must implement a process to verify compliance with SSMP requirements. The process must identify at what point in the planning process Priority Development Projects will be required to meet SSMP requirements and at a minimum, the Priority Development Project must implement the required post-construction BMPs prior to occupancy and/or the intended use of any portion of that project. The process must also include identification of the roles and responsibilities of various municipal departments in implementing the SSMP requirements, as well as any other measures necessary for the implementation of SSMP requirements.
- (b) Each Copermittee must establish a mechanism not only to track post-construction BMPs, but also to ensure that appropriate easements and ownerships are properly recorded in public records and the information is conveyed to all appropriate parties when there is a change in project or site ownership.

(10) Post-construction BMP Review

- (a) The Copermittees must review and update the BMPs that are listed in their SSMP as options for treatment control. At a minimum, the update must include removal of obsolete or ineffective BMPs and addition of LID BMPs that can be used for treatment, such as bioretention cells, bioretention swales, etc. The update must also add appropriate LID BMPs to any tables or discussions in the local SSMPs addressing pollutant removal efficiencies of treatment control BMPs. In addition, the update must include review and revision where necessary of treatment control BMP pollutant removal efficiencies.

- (b) The update must incorporate findings from BMP effectiveness studies conducted by the Copermittees for projects funded wholly or in part by the State Water Board or Regional Water Boards.
- (c) Each Copermittee must implement a mechanism for annually incorporating findings from local treatment BMP effectiveness studies (e.g., ones conducted by, or on-behalf of, public agencies in Riverside County) into SSMP project reviews and permitting.

e. BMP CONSTRUCTION VERIFICATION

Prior to occupancy and/or intended use of any portion of the Priority Development Project subject to SSMP requirements, each Copermittee must inspect the constructed site design, source control, and treatment control BMPs applicable to the constructed portion of the project to verify that they have been constructed and are operating in compliance with all specifications, plans, permits, ordinances, and this Order.

f. BMP MAINTENANCE TRACKING

- (1) Inventory of SSMP projects: Each Copermittee must develop and maintain a watershed-based database to track and inventory all projects constructed within their jurisdiction, that have a final approved SSMP (SSMP projects), and its structural post-construction BMPs implemented therein since July, 2005. LID BMPs implemented on a lot by lot basis at single family residential houses, such as rain barrels, are not required to be tracked or inventoried. At a minimum, the database must include information on BMP type(s), location, watershed, date of construction, party responsible for maintenance, dates and findings of maintenance verifications, and corrective actions, including whether the site was referred to the local vector control agency or department.
- (2) Each Copermittee must verify that approved post-construction BMPs are operating effectively and have been adequately maintained by implementing the following measures:
 - (a) The designation of high priority SSMP Projects must consider the following:
 - (i) BMP size,
 - (ii) Recommended maintenance frequency,
 - (iii) Likelihood of operational and maintenance issues,
 - (iv) Location,

DIRECTIVES F: JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM

F.1 DEVELOPMENT COMPONENT

F.1.d. STANDARD STORM WATER MITIGATION PLANS

F.1.e. BMP CONSTRUCTION VERIFICATION

F.1.f. BMP MAINTENANCE TRACKING

- (v) Receiving water quality,
- (vi) Compliance record,
- (vii) Land use, and
- (viii) Other pertinent factors;

At a minimum, high priority projects include those projects that generate pollutants (prior to treatment) within the tributary area of and within the same hydrologic subarea as a 303(d) listed waterbody impaired for that pollutant; or those projects generating pollutants within the tributary area for and within the same hydrologic subarea as an observed action level exceedance of that pollutant.

- (b) Beginning on July 1, 2012, each Copermittee must verify that the required structural post-construction BMPs on the inventoried SSMP projects have been implemented, are maintained, and are operating effectively through inspections, self-certifications, surveys, or other equally effective approaches with the following conditions:
 - (i) The implementation, operation, and maintenance of all (100 percent) approved and inventoried final project public and private SSMPs (a.k.a. WQMPs) must be verified every five years;
 - (ii) All (100 percent) projects with BMPs that are high priority must be inspected by the Copermittee annually prior to each rainy season;
 - (iii) All (100 percent) Copermittee projects with BMPs must be inspected by the Copermittee annually;
 - (iv) At the discretion of the Copermittee, its inspections may be coordinated with the facility inspections implemented pursuant to section F.3. of this Order;
 - (v) For verifications performed through a means other than direct Copermittee inspection, adequate documentation must be submitted to the Copermittee to provide assurance that the required maintenance has been completed;
 - (vi) Appropriate follow-up measures (including re-inspections, enforcement, maintenance, etc.) must be conducted to ensure the treatment BMPs continue to reduce storm water pollutants as originally designed; and
 - (vii) Inspections must note observations of vector conditions, such as mosquitoes. Where conditions are identified as contributing to mosquito production, the Copermittee must notify its local vector control agency.

g. ENFORCEMENT OF DEVELOPMENT SITES

Each Copermittee must enforce its storm water ordinance for all development projects as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms must include appropriate sanctions to achieve compliance. Sanctions must include the following tools or their equivalent: Non-monetary penalties, fines, bonding requirements, liens, and/or permit or occupancy denials for non-compliance.

h. HYDROMODIFICATION – LIMITATIONS ON INCREASES OF RUNOFF DISCHARGE RATES AND DURATIONS¹⁵

Each Copermittee shall collaborate with the other Copermittees to develop and implement a Hydromodification Management Plan (HMP) to manage increases in runoff discharge rates and durations from all Priority Development Projects. The HMP must be incorporated into the SSMP and implemented by each Copermittee so that estimated post-project runoff discharge rates and durations must not exceed pre-development discharge rates and durations. Where the proposed project is located on an already developed site, the pre-project discharge rate and duration must be that of the pre-developed, naturally occurring condition. The draft HMP must be submitted to the San Diego Water Board on or before June 30, 2013. The HMP will be made available for public review and comment and the San Diego Water Board Executive Officer will determine whether to hold a public hearing before the full San Diego Water Board or whether public input will be through written comments to the Executive Officer only.

(1) The HMP must:

- (a) Identify a method for assessing susceptibility and geomorphic stability of channel segments which receive runoff discharges from Priority Development Projects. A performance standard must be established that ensures that the geomorphic stability within the channel will not be compromised as a result of receiving runoff discharges from Priority Development Projects.

¹⁵ Updated SSMP and hydromodification requirements must apply to all Priority Development Projects or phases of Priority Development Projects which have not yet begun grading or construction activities at the time any updated SSMP or hydromodification requirement commences. If a Copermittee determines that lawful prior approval of a project exists, whereby application of an updated SSMP or hydromodification requirement to the project is legally infeasible, the updated SSMP or hydromodification requirement need not apply to the project. The Copermittees must utilize the SSMP and hydromodification update periods to ensure that projects undergoing approval processes include application of the updated SSMP and hydromodification requirements in its plans.

- (b) Identify a range of runoff flows¹⁶ based on continuous simulation of the entire rainfall record (or other analytical method proposed by the Copermittees and deemed acceptable by the San Diego Water Board) for which Priority Development Project post-project runoff flow rates and durations must not exceed pre-development (naturally occurring) runoff flow rates and durations by more than 10 percent, where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses. The lower boundary of the range of runoff flows identified must correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks. The identified range of runoff flows may be different for specific watersheds, channels, or channel reaches. In the case of an artificially hardened (concrete lined, rip rap, etc.) channel, the lower boundary of the range of runoff flows identified must correspond with the critical channel flow that produces the critical shear stress that initiates channel bed movement or that erodes the toe of channel banks of a comparable natural channel (i.e. non-hardened, pre-development).
- (c) Identify a method to assess and compensate for the loss of sediment supply to streams due to development. A performance and/or design standard must be created and required to be met by Priority Development Projects to ensure that the loss of sediment supply due to development does not cause or contribute to increased erosion within channel segments downstream of Priority Development Project discharge points.
- (d) Designate and require Priority Development Projects to implement control measures so that (1) post-project runoff flow rates and durations do not exceed pre-development (naturally occurring) runoff flow rates and durations by more than 10 percent for the range of runoff flows identified under section F.1.h.(1)(b), where the increased flow rates and durations will result in increased potential for erosion or other significant adverse impacts to beneficial uses; (2) post-project runoff flow rates and durations do not result in channel conditions which do not meet the channel standard developed under section F.1.h.(1)(a) for channel segments downstream of Priority Development Project discharge points; and (3) the design of the project and/or control measures compensate for the loss of sediment supply due to development.

¹⁶ The identified range of run off flows to be controlled should be expressed in terms of peak flow rates of rainfall events, such as "10% of the pre-development 2-year runoff event up to the pre-development 10-year runoff event."

- (e) Include a protocol to evaluate potential hydrograph change impacts to downstream watercourses from Priority Development Projects to meet the range of runoff flows identified under Section F.1.h.(1)(b).
- (f) Include other performance criteria (numeric or otherwise) for Priority Development Projects as necessary to prevent runoff from the projects from increasing and/or continuing unnatural rates of erosion of channel beds and banks, silt pollutants generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.
- (g) Include a review of pertinent literature.
- (h) Identify areas within the Santa Margarita Hydrologic Unit for potential opportunities to restore or rehabilitate stream channels with historic hydromodification of receiving waters that are tributary to documented low or very low Index of Biotic Integrity (IBI) scores.
- (i) Include a description of how the Copermitttees will incorporate the HMP requirements into their local approval processes.
- (j) Include criteria on selection and design of management practices and measures (such as detention, retention, and infiltration) to control flow rates and durations and address potential hydromodification impacts.
- (k) Include technical information, including references, supporting any standards and criteria proposed.
- (l) Include a description of inspections and maintenance to be conducted for management practices and measures to control flow rates and durations and address potential hydromodification impacts.
- (m) Include a description of monitoring and other program evaluations to be conducted to assess the effectiveness of implementation of the HMP. Monitoring and other program evaluations must include an evaluation of changes to physical (e.g., cross-section, slope, discharge rate, vegetation, pervious/impervious area) and biological (e.g., habitat quality, benthic flora and fauna, IBI scores) conditions of receiving water channels as areas with Priority Development Projects are constructed (i.e. pre- and post-project), as appropriate.
- (n) Include mechanisms for assessing and addressing cumulative impacts of Priority Development Projects within a watershed on channel morphology.

(2) In addition to the control measures that must be implemented by Priority Development Projects per section F.1.h.(1)(d), the HMP must include a suite of management measures that can be used on Priority Development Projects to mitigate hydromodification impacts, protect and restore downstream beneficial uses and prevent or further prevent adverse physical changes to downstream channels. The measures must be based on a prioritized consideration of the following elements in this order:

- (a) Site design control measures;
- (b) On-site management measures;
- (c) Regional control measures located upstream of receiving waters; and
- (d) In-stream management and control measures.

Where stream channels are adjacent to, or are to be modified as part of a Priority Development Project, management measures must include buffer zones and setbacks. The suite of management measures must also include stream restoration as a viable option to achieve the channel standard in section F.1.h.(1)(a). In-stream controls used as management measures to protect and restore downstream beneficial uses and for preventing or minimizing further adverse physical changes must not include the use of non-naturally occurring hardscape materials such as concrete, riprap, gabions, etc. to reinforce stream channels.

(3) As part of the HMP, the Copermittees may develop a waiver program that allows a redevelopment Priority Development Project, as defined in Section F.1.d.(1)(b), to implement offsite mitigation measures. A waiver may be granted if onsite management and control measures are technically infeasible to fully achieve post-project runoff flow rates and durations that do not exceed the pre-development (naturally occurring) runoff flow rates and durations. Redevelopment projects that are granted a waiver under the program must not have post-project runoff flow rates and durations that exceed the pre-project runoff flow rates and durations. The estimated incremental hydromodification impacts from not achieving the pre-development (naturally occurring) runoff flow rates and durations for the project site must be fully mitigated. The offsite mitigation must be within the same stream channel system to which the project discharges. Mitigation projects not within the same stream channel system but within the same hydrologic unit may be approved provided that the project proponent demonstrates that mitigation within the same stream channel is infeasible and that the mitigation project will address similar impacts as expected from the project.

(4) Each individual Copermittee has the discretion to not require Section F.1.h. at Priority Development Projects where the project:

- (a) Discharges storm water runoff into underground storm drains discharging directly to water storage reservoirs and lakes;

- (b) Discharges storm water runoff into conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to water storage reservoirs and lakes; or
- (c) Discharges storm water runoff into other areas identified in the HMP as acceptable to not need to meet the requirements of Section F.1.h by the San Diego Water Board Executive Officer.

(5) HMP Reporting and Implementation

- (a) On or before June 30, 2013, the Copermittees must submit to the San Diego Water Board a draft HMP that has been reviewed by the public, including the identification of the appropriate limiting range of flow rates per section F.1.h.(1)(b).
- (b) Within 180 days of receiving San Diego Water Board comments on the draft HMP, the Copermittees must submit a final HMP that addressed the San Diego Water Board's comments.
- (c) Within 90 days of receiving a determination of adequacy from the San Diego Water Board, each Copermittee must incorporate and implement the HMP for all Priority Development Projects.
- (d) Prior to acceptance of the HMP by the San Diego Water Board, the early implementation measures likely to be included in the HMP must be encouraged by the Copermittees.

(6) Interim Hydromodification Criteria

Immediately following adoption of this Order and until the final HMP required by this Order has been determined by the San Diego Water Board to be adequate, each Copermittee must ensure that all Priority Development Projects are implementing the hydromodification (aka Hydrologic Condition of Concern) requirements found in Section 4.4 of the 2006 Riverside County WQMP (updated in 2009) unless one of the following conditions in lieu of those specified in the WQMP are met:

- (a) Runoff from the Priority Development Project discharges (1) directly to a conveyance channel or storm drain that is concrete lined all the way from the point of discharge to the ocean, bay, lagoon, water storage reservoir or lake; and (2) the discharge is in full compliance with Copermittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); and (3) the discharge will not cause increased upstream or downstream erosion or adversely impact downstream habitat; and (4) the discharge is authorized by the Copermittee.

- (b) The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a project specific WQMP to address hydrologic condition concerns on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.
- (c) The runoff flow rate, volume, velocity, and duration for the post-development condition of the Priority Development Project do not exceed the pre-development (i.e. naturally occurring) condition for the 2-year, 24-hour and 10-year, 24-hour rainfall events. This condition must be substantiated by hydrologic modeling acceptable to the Copermittee.

Once a final HMP is determined to be adequate and is required to be implemented, compliance with the final HMP is required by this Order and compliance with the 2004 WQMP (updated in 2009) or the in-lieu interim hydromodification criteria set forth above no longer satisfies the requirements of this Order.

- (7) No part of section F.1.h eliminates the Copermittees' responsibilities for implementing the Low Impact Development requirements under section F.1.d.(4).

i. UNPAVED ROADS DEVELOPMENT

The Copermittees must develop, where they do not already exist, and implement or require implementation of erosion and sediment control BMPs after construction of new unpaved roads. At a minimum, the BMPs must include the following, or alternative BMPs that are equally effective:

- (1) Practices to minimize road related erosion and sediment transport;
- (2) Grading of unpaved roads to slope outward where consistent with road engineering safety standards;
- (3) Installation of water bars as appropriate; and
- (4) Unpaved roads and culvert designs that do not impact creek functions and where applicable, that maintain migratory fish passage.

2. CONSTRUCTION COMPONENT

Each Copermittee must implement a construction program which meets the requirements of this section, prevents illicit discharges into the MS4, implements and maintains structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites to the MS4, reduces construction site discharges of storm water pollutants from the MS4 to the MEP, and prevents construction site discharges from the MS4 from causing or contributing to a violation of water quality standards.

a. ORDINANCE UPDATE

By July 1, 2012, each Copermittee must review and update its grading ordinances and other ordinances as necessary to achieve full compliance with this Order, including requirements for the implementation of all designated BMPs and other measures.

b. SOURCE IDENTIFICATION

Each Copermittee must maintain an updated watershed-based inventory of all construction sites within its jurisdiction. The use of an automated database system, such as Geographical Information Systems (GIS) is strongly encouraged.

c. SITE PLANNING AND PROJECT APPROVAL PROCESS

Each Copermittee must incorporate consideration of potential water quality impacts prior to approval and issuance of construction and grading permits.

- (1) Each construction and grading permit must require proposed construction sites to implement designated BMPs and other measures so that illicit discharges into the MS4 are prevented, storm water pollutants discharged from the site will be reduced to the MEP, and construction discharges from the MS4 are prevented from causing or contributing to a violation of water quality standards.
- (2) Prior to permit issuance, the project proponent's runoff management plan (or equivalent construction BMP plan) must be required to comply, and reviewed to verify compliance with the local grading ordinance, other applicable local ordinances, and this Order.
- (3) Prior to permit issuance, each Copermittee must verify that project proponents subject to California's statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities, (hereinafter General Construction Permit), have existing coverage under the General Construction Permit.

d. BMP IMPLEMENTATION

(1) Designate BMPs: Each Copermitttee must designate a minimum set of BMPs and other measures to be implemented at all construction sites. The designated minimum set of BMPs must include:

(a) Management Measures:

- (i) Pollution prevention, where appropriate;
- (ii) Development and implementation of a runoff management plan;
- (iii) Minimization of areas that are cleared and graded to only the portion of the site that is necessary for construction;
- (iv) Minimization of exposure time of disturbed soil areas;
- (v) Minimization of grading during the rainy season and correlation of grading with seasonal dry weather periods to the extent feasible;
- (vi) Limitation of grading to a maximum disturbed area as determined by each Copermitttee before either temporary or permanent erosion controls are implemented to prevent storm water pollution. The Copermitttee has the option of temporarily increasing the size of disturbed soil areas by a set amount beyond the maximum, if the individual site is in compliance with applicable storm water regulations and the site has adequate control practices implemented to prevent storm water pollution;
- (vii) Temporary stabilization and reseedling of disturbed soil areas as rapidly as feasible;
- (viii) Wind erosion controls;
- (ix) Tracking controls;
- (x) Non-stormwater management measures to prevent illicit discharges and control storm water pollution sources;
- (xi) Waste management measures;
- (xii) Preservation of natural hydrologic features where feasible;
- (xiii) Preservation of riparian buffers and corridors where feasible;
- (xiv) Evaluation and maintenance of all BMPs, until removed; and
- (xv) Retention, reduction, and proper management of all storm water pollutant discharges on site to the MEP standard.

(b) Erosion and Sediment Controls:

- (i) Erosion prevention. Erosion prevention is to be used as the most important measure for keeping sediment on site during construction;
- (ii) Sediment controls. Sediment controls are to be used as a supplement to erosion prevention for keeping sediment on-site during construction;

- (iii) Slope stabilization must be used on all active slopes during rain events regardless of the season and on all inactive slopes during the rainy season and during rain events in the dry season;
 - (iv) Permanent revegetation or landscaping as early as feasible; and
 - (v) Erosion and sediment controls must be required during the construction of unpaved roads.
- (2) Each Copermitttee must implement, or require implementation of, enhanced¹⁷ measures to address the threat to water quality posed by all construction sites tributary to CWA section 303(d) water body segments impaired for sediment or turbidity. Each Copermitttee must also implement, or require implementation of, enhanced, measures for construction sites within, or adjacent to, or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).
- (3) Active/Passive Sediment Treatment (AST): Each Copermitttee must require implementation of AST for sediment at construction sites (or portions thereof) that are determined by the Copermitttee to be an exceptional threat to water quality. In evaluating the threat to water quality, the following factors must be considered by the Copermitttee:
- (a) Soil erosion potential or soil type;
 - (b) The site's slopes;
 - (c) Project size and type;
 - (d) Sensitivity of receiving water bodies;
 - (e) Proximity to receiving water bodies;
 - (f) Non-storm water discharges;
 - (g) Ineffectiveness of other BMPs;
 - (h) Proximity and sensitivity of aquatic threatened and endangered species of concern;
 - (i) Known effects of AST chemicals; and
 - (j) Any other relevant factors.
- (4) Implement BMPs: Each Copermitttee must implement, or require the implementation of, the designated minimum BMPs and any additional measures necessary to comply with this Order at each construction site within its jurisdiction year round. BMP implementation requirements, however, can vary based on wet and dry seasons. Dry season BMP implementation must plan for and address unseasonal rain events that may occur during the dry season (May 1 through September 30).

¹⁷ Enhanced BMPs are control actions specifically targeted to the pollutant or condition of concern and of higher quality and effectiveness than the minimum control measures otherwise required. Enhanced in this Order means better, not simply more, BMPs.

e. INSPECTION OF CONSTRUCTION SITES

Each Copermittee must conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order. Priorities for inspecting sites must consider the nature and size of the construction activity, topography, and the characteristics of soils and receiving water quality.

- (1) During the rainy season, each Copermittee must inspect at least every two weeks, all construction sites within its jurisdiction meeting any of the following criteria:
 - (a) All sites 30 acres or more in size with rough grading or with active, unstabilized slopes occurring during the rainy season;
 - (b) All sites one acre or more, and within the same hydrologic subarea and tributary to a CWA section 303(d) water body segment impaired for sediment; or within, directly adjacent to, or discharging directly to a receiving water within an ESA; and
 - (c) Other sites determined by the Copermittees or the San Diego Water Board as a significant threat to water quality. In evaluating threat to water quality, the following factors must be considered: (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; (7) known past record of non-compliance by the operators of the construction site; and (8) any other relevant factors.
- (2) During the rainy season, each Copermittee must inspect at least monthly, all construction sites with one acre or more of soil disturbance not meeting the criteria specified above in section F.2.e.(1).
- (3) During the rainy season, each Copermittee must inspect construction sites less than one acre in size as needed to ensure compliance with its ordinances and this Order.
- (4) Each Copermittee must inspect all construction sites as needed during the dry season. Sites meeting the criteria in section F.2.e.(1) must be inspected at least once in August or September each year.
- (5) Re-inspections: Based upon site inspection findings, each Copermittee must implement all follow-up actions (i.e., re-inspection, enforcement) necessary to comply with this Order. Reinspection frequencies must be determined by each Copermittee based upon the severity of deficiencies, the nature of the construction activity, and the characteristics of soils and receiving water quality.

- (6) Inspections of construction sites must include, but not be limited to:
- (a) Check for coverage under the General Construction Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.) during initial inspections;
 - (b) Assessment of compliance with Copermittee ordinances and permits related to runoff, including the implementation and maintenance of designated minimum BMPs;
 - (c) Assessment of BMP effectiveness;
 - (d) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff;
 - (e) Review of site monitoring data results, if the site monitors its runoff
 - (f) Education and outreach on storm water pollution prevention, as needed; and
 - (g) Creation of a written or electronic inspection report.
- (7) The Copermittees must track the number of inspections for each inventoried construction site throughout the reporting period to verify that each site is inspected at the minimum frequencies required.

f. ENFORCEMENT OF CONSTRUCTION SITES

- (1) Each Copermittee must develop and implement an escalating enforcement process that achieves prompt corrective actions at construction sites for violations of the Copermittee's water quality protection permits, requirements, and ordinances. This enforcement process must include authorizing the Copermittee's construction site inspectors to take immediate enforcement actions when appropriate and necessary. The enforcement process must include appropriate sanctions such as stop work orders, non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.
- (2) Each Copermittee must be able to respond to construction complaints received from third-parties and to ensure the San Diego Water Board that corrective actions have been implemented, if warranted.

g. REPORTING OF NON-COMPLIANT SITES

- (1) In addition to the notification requirements in Attachment B, each Copermittee must notify the San Diego Water Board when the Copermittee issues high level enforcement (as defined in the Copermittee's JRMP) to a construction site that poses a significant threat to water quality in its jurisdiction as a result of violations of its storm water ordinances.
- (2) Each Copermittee must annually notify the San Diego Water Board, prior to the commencement of the rainy season, of all construction sites with alleged violations that pose a significant threat to water quality. Information may be

provided as part of the JRMP annual report if submitted prior to the rainy season. Information provided must include, but not be limited to, the following:

- (a) WDID number if enrolled under the General Construction Permit
- (b) Site Location, including address
- (c) Current violations or suspected violations

3. EXISTING DEVELOPMENT COMPONENT

a. MUNICIPAL

Each Copermittee must implement a municipal program for the Copermittee's areas and activities that meets the requirements of this section, prevents illicit discharges into the MS4, reduces municipal discharges of storm water pollutants from the MS4 to the MEP, and prevents municipal discharges from the MS4 from causing or contributing to a violation of water quality standards.

(1) Source Identification / Inventory

Each Copermittee must maintain an updated watershed-based inventory of all its municipal areas and those activities that have the potential to generate pollutants. The inventory must include the name, address (if applicable), and a description of the area/activity; which pollutants are potentially generated by the area/activity; whether the area/activity is adjacent to an ESA; and identification of whether the area/activity is tributary to and within the same hydrologic subarea as a CWA section 303(d) water body segment and generates pollutants for which the water body segment is impaired. Linear facilities, such as roads, streets, and highways, do not need to be individually inventoried. The use of an automated database system, such as Geographical Information Systems (GIS) is highly recommended.

(2) General BMP Implementation

- (a) Pollution Prevention: Each Copermittee must implement pollution prevention methods in its municipal program and must require their use by appropriate departments, personnel, and contractors.
- (b) Designate Minimum BMPs: Each Copermittee must designate a minimum set of BMPs for all municipal areas and those activities that have the potential to generate pollutants. The designated minimum BMPs for municipal areas and activities must be area or activity specific as appropriate.

(c) Each Copermittee must designate BMPs for special events that are expected to generate significant trash and litter. Controls to consider must include:

- (i) Temporary screens on catch basins and storm drain inlets;
- (ii) Temporary fencing to prevent windblown trash from entering adjacent water bodies and MS4 channels;
- (iii) Proper management of trash and litter;
- (iv) Catch basin cleaning following the special event and prior to an anticipated rain event;
- (v) Street sweeping of roads, streets, highways and parking facilities following the special event; and
- (vi) Other equivalent controls.

(d) Designate BMPs for ESAs and 303(d) Impairments: Each Copermittee must designate enhanced measures for its municipal areas and activities tributary to and within the same hydrologic subarea as CWA section 303(d) impaired water body segments when an area or those activities have the potential to generate pollutants for which the water body segment is impaired. Each Copermittee must also designate additional controls for its municipal areas and activities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order).

(e) Implement BMPs: Each Copermittee must implement, or require the implementation of, the designated minimum and enhanced BMPs and any additional measures necessary based on its inventory to comply with this Order for each of its municipal area and those activities that have the potential to discharge pollution.

(3) BMP Implementation for Management of Pesticides, Herbicides, and Fertilizers

Each Copermittee must implement BMPs to reduce the contribution of storm water pollutants to the MEP associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from its municipal areas and activities to MS4s and receiving waters. Such BMPs must include, at a minimum:

- (a) Educational activities, permits, certifications and other measures for municipal applicators and distributors;
- (b) Integrated Pest Management (IPM) measures that rely on non-chemical solutions;
- (c) The use of native vegetation;
- (d) Schedules for irrigation and chemical application; and

- (e) The collection and proper disposal of unused pesticides, herbicides, and fertilizers.

(4) BMP implementation for Flood Control Structures

- (a) Each Copermitttee must implement procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies.
- (b) Each Copermitttee must include water quality protection measures, where feasible, when retrofitting existing flood control structural devices.
- (c) Each Copermitttee must evaluate its existing flood control structures as part of ongoing routine maintenance, identify structures causing or contributing to a condition of pollution, implement measures to reduce or eliminate the structure's effect on pollution, and evaluate the feasibility of retrofitting the structural flood control device. The inventory and evaluation must be completed by and submitted to the San Diego Water Board in each JRMP Annual Report.

(5) BMP Implementation for Sweeping of Municipal Areas

Where municipal area sweeping is implemented as an MS4 BMP for municipal roads, streets, highways, and parking facilities, each Copermitttee must design and implement the program based on the following criteria:

- (a) Roads, streets, highways, and parking facilities identified as consistently generating the highest volumes of trash and/or debris must be swept at least two times per month.
- (b) Roads, streets, highways, and parking facilities identified as consistently generating moderate volumes of trash and/or debris must be swept at least monthly.
- (c) Roads, streets, highways, and parking facilities identified as generating low volumes of trash and/or debris must be swept as necessary, but no less than once per year.

(6) Operation and Maintenance of Municipal Separate Storm Sewer System (MS4) and Treatment Controls

- (a) Treatment Controls: Each Copermitttee must implement a schedule of inspection and maintenance activities to verify proper operation of all its municipal structural treatment controls designed to reduce storm water pollutant discharges to or from its MS4s and related drainage structures.

- (b) MS4 and Facilities: Each Copermittee must implement a schedule of maintenance activities for its MS4 and facilities (including but not limited to catch basins, storm drain inlets, detention basins, etc). The maintenance activities must, at a minimum, include:
- (i) Inspection and removal of accumulated waste at least once a year between May 1 and September 30 of each year for all MS4 facilities;
 - (ii) Additional facilities cleaning as necessary between October 1 and April 30 of each year;
 - (iii) Following two years of inspections, any MS4 facility that requires inspection and cleaning less than annually may be inspected as needed, but not less than every other year;
 - (iv) Open channels and basins must be cleaned of observed anthropogenic litter in a timely manner;
 - (v) Maintenance activities within open channels must not adversely impact beneficial uses;
 - (vi) Record keeping of the maintenance and cleaning activities including the overall quantity of waste removed;
 - (vii) Proper disposal of waste removed pursuant to applicable laws; and
 - (viii) Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.

(7) Infiltration From Sanitary Sewer to MS4/Provide Preventive Maintenance

- (a) Each Copermittee must implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4. Each Copermittee that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both.
- (b) Each Copermittee must implement controls to limit infiltration of seepage from sanitary sewers to municipal separate storm sewer systems where necessary. Such controls must include:
- (i) Adequate plan checking for construction and new development;
 - (ii) Incident response training for its municipal employees that identify sanitary sewer spills;
 - (iii) Code enforcement inspections;
 - (iv) MS4 maintenance and inspections;
 - (v) Interagency coordination with sewer agencies; and

- (vi) Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).

(8) Inspection of Municipal Areas and Activities

- (a) At a minimum, each Copermittee must inspect the following high priority municipal areas and activities annually:
 - (i) Roads, Streets, Highways, and Parking Facilities;
 - (ii) Flood Management Projects and Flood Control Devices not otherwise inspected per Section F.3.a.(6)(b);
 - (iii) Areas and activities tributary to and within the same hydrologic subarea as a CWA section 303(d) impaired water body segment, where an area or activity generates pollutants for which the water body segment is impaired;
 - (iv) Areas and activities within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order);
 - (v) Municipal Facilities:
 - [a] Active or closed municipal landfills;
 - [b] Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
 - [c] Solid waste transfer facilities;
 - [d] Land application sites;
 - [e] Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles; and
 - [f] Household hazardous waste collection facilities.
 - (vi) Municipal airfields;
 - (vii) Parks and recreation facilities;
 - (viii) Special event venues following special events (festivals, sporting events, etc.);
 - (ix) Power washing activities; and
 - (x) Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.
- (b) Other municipal areas and activities must be inspected as needed and in response to water quality data, valid public complaints, and findings from municipal or contract staff.
- (c) Based upon site inspection findings, each Copermittee must implement all follow-up actions necessary to comply with this Order.

(9) Enforcement of Municipal Areas and Activities

Each Copermittee must enforce its storm water ordinance for all its municipal areas and activities as necessary to maintain compliance with this Order.

(10) Copermittee Maintained Unpaved Roads Maintenance

- (a) The Copermittees must develop, where they do not already exist, and implement or require implementation of BMPs for erosion and sediment control measures during their maintenance activities on Copermittee maintained unpaved roads, particularly in or adjacent to receiving waters.
- (b) The Copermittees must develop and implement or require implementation of appropriate BMPs to minimize impacts on streams and wetlands during their unpaved road maintenance activities.
- (c) The Copermittees must maintain as necessary their unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport;
- (d) Re-grading of unpaved roads during maintenance must be sloped outward where consistent with road engineering safety standards or alternative equally effective BMPs must be implemented to minimize erosion and sedimentation from unpaved roads; and
- (e) Through their maintenance of unpaved roads, the Copermittees must examine the feasibility of replacing existing culverts or design of new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology.

b. COMMERCIAL / INDUSTRIAL

Each Copermittee must implement a commercial / industrial program that meets the requirements of this section, prevents illicit discharges into the MS4, reduces commercial / industrial discharges of storm water pollutants from the MS4 to the MEP, and prevents commercial / industrial discharges from the MS4 from causing or contributing to a violation of water quality standards.

(1) Source Identification

- (a) Each Copermittee must maintain an updated watershed-based inventory of all industrial and commercial sites/sources within its jurisdiction (regardless of ownership) that could contribute a significant pollutant load to the MS4. The inventory must include the following minimum

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information for each industrial and commercial site/source: name; address; pollutants potentially generated by the site/source; and identification of whether the site/source is tributary to a CWA §303(d) water body segment and generates pollutants for which the water body segment is impaired; and a narrative description including SIC codes which best reflects the principal products or services provided by each facility.

At a minimum, the following sites/sources must be included in the inventory:

(i) Commercial Sites/Sources:

- [a] Automobile repair, maintenance, fueling, or cleaning;
- [b] Airplane repair, maintenance, fueling, or cleaning;
- [c] Boat repair, maintenance, fueling, or cleaning;
- [d] Equipment repair, maintenance, fueling, or cleaning;
- [e] Automobile and other vehicle body repair or painting;
- [f] Mobile automobile or other vehicle washing;
- [g] Automobile (or other vehicle) parking lots and storage facilities;
- [h] Retail or wholesale fueling;
- [i] Pest control services;
- [j] Eating or drinking establishments, including such retail establishments with food markets;
- [k] Mobile carpet, drape or furniture cleaning;
- [l] Cement mixing or cutting;
- [m] Masonry;
- [n] Painting and coating;
- [o] Botanical or zoological gardens and exhibits;
- [p] Landscaping;
- [q] Nurseries and greenhouses;
- [r] Golf courses, parks and other recreational areas/facilities;
- [s] Cemeteries;
- [t] Pool and fountain cleaning;
- [u] Marinas;
- [v] Portable sanitary services;
- [w] Building material retailers and storage;
- [x] Animal boarding facilities and kennels;
- [y] Mobile pet services;
- [z] Power washing services;
- [aa] Plumbing services; and
- [bb] Other sites and sources with a history of un-authorized discharges to the MS4.

- (ii) Industrial Sites/Sources:
 - [a] Industrial Facilities, as defined at 40 CFR § 122.26(b)(14), including those subject to the General Industrial Permit or other individual NPDES permit;
 - [b] Operating and closed landfills;
 - [c] Facilities subject to SARA Title III; and
 - [d] Hazardous waste treatment, disposal, storage and recovery facilities.

- (iii) ESAs and 303(d) Listed Waterbodies: All other commercial or industrial sites/sources tributary to and within the same hydrologic subarea as a CWA Section 303(d) impaired water body segment, where the site/source generates pollutants for which the water body segment is impaired. All other commercial or industrial sites/sources within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order) or that generate pollutants tributary to and within the same hydrologic subarea as an observed exceedance of an action level.

- (iv) All other commercial or industrial sites/sources that the Copermitttee determines may contribute a significant pollutant load to the MS4.

(2) General BMP Implementation

- (a) Pollution Prevention: Each Copermitttee must require the use of pollution prevention methods by the inventoried industrial and commercial sites/sources.

- (b) Designate / Update Minimum BMPs: Each Copermitttee must designate a minimum set of BMPs for all inventoried industrial and commercial sites/sources. Where BMPs have already been designated, each Copermitttee must review and update its existing BMPs for adequacy no later than with the submittal of the JRMP. Copermitttees may continue to regularly review and update their designated BMPs for adequacy and subsequently submit any updates in their Annual Report. The designated minimum BMPs must be specific to facility types and pollutant-generating activities, as appropriate.

- (c) Designate Enhanced BMPs for ESAs and 303(d) Impairments: Each Copermitttee must designate enhanced measures for inventoried industrial and commercial sites/sources tributary to and within the same hydrologic subarea as CWA section 303(d) impaired water body segments (where a site/source generates pollutants for which the water body segment is

impaired). Each Copermittee must also designate additional controls for industrial and commercial sites/sources within or directly adjacent to or discharging directly to coastal lagoons, the ocean, or other receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order). Copermittees may continue to regularly review and update their designated enhanced BMPs for adequacy and subsequently submit any updates in their next Annual Report.

- (d) Implement BMPs: Each Copermittee must implement, or require the implementation of, the designated minimum and enhanced BMPs and any additional measures necessary based on inspections, incident responses, and water quality data to comply with this Order at each industrial and commercial site/source within its jurisdiction.

(3) Mobile Businesses Program

- (a) Each Copermittee must develop and implement a program to reduce the discharge of storm water pollutants from mobile businesses to the MEP and to prohibit non-storm water discharges pursuant to Section B of this Order. Each Copermittee must keep as part of its commercial source inventory a listing of mobile businesses known to operate within its jurisdiction that conduct services listed above in section F.3.b.(1)(a). The program must include:
- (i) Development and implementation of minimum standards and BMPs to be required for each of the various types of mobile businesses;
 - (ii) Development and implementation of an enforcement strategy which specifically addresses the unique characteristics of mobile businesses;
 - (iii) Notification of those mobile businesses known to operate within the Copermittee's jurisdiction of the minimum standards and BMP requirements;
 - (iv) Development and implementation of an outreach and education strategy; and
 - (v) Inspection of mobile businesses as needed to implement the program.
- (b) If they choose to, the Copermittees may cooperate in developing and implementing their programs for mobile businesses, including sharing of mobile business inventories, BMP requirements, enforcement action information, and education.

(4) Inspection of Industrial and Commercial Sites/Sources

Each Copermittee must conduct industrial and commercial site inspections for compliance with its ordinances, permits, and this Order. Mobile businesses must be inspected as needed pursuant to section F.3.b.(3).

(a) Inspection Procedures: Inspections must include but not be limited to:

- (i) Review of BMP implementation plans not including SSMPs required pursuant to section F.1.d, if the site uses or is required to use such a plan;
- (ii) Review of facility monitoring data, if the site monitors its runoff;
- (iii) Check for coverage under the General Industrial Permit (Notice of Intent (NOI) and/or Waste Discharge Identification Number), if applicable;
- (iv) Assessment of compliance with Copermittee ordinances and Copermittee issued permits related to runoff;
- (v) Assessment of the implementation, maintenance and effectiveness of the designated minimum and/or enhanced BMPs;
- (vi) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and
- (vii) Education and training on storm water pollution prevention, as conditions warrant.

(b) Frequencies: At a minimum all sites determined to pose a high threat to water quality must be inspected each year. All inventoried sites must be inspected at least once during a five year period. In evaluating threat to water quality, each Copermittee must consider, at a minimum, the following:

- (i) Type of activity (SIC code);
- (ii) Materials used at the facility;
- (iii) Wastes generated;
- (iv) Pollutant discharge potential, including whether the facility generates a pollutant that exceeds an action level;
- (v) Non-storm water discharges;
- (vi) Size of facility;
- (vii) Proximity to receiving water bodies;
- (viii) Sensitivity of receiving water bodies;
- (ix) Whether the facility is subject to the General Industrial Permit or an individual NPDES permit;
- (x) Whether the facility has filed a No Exposure Certification/Notice of Non-Applicability;
- (xi) Facility design;

- (xii) Total area of the site, portion of the site where industrial or commercial activities occur, and area of the site exposed to rainfall and runoff;
 - (xiii) The facility's compliance history; and
 - (xiv) Any other relevant factors.
- (c) Third-Party Certifications: Each Copermittee may propose to develop and implement a third party certification program subject to San Diego Water Board Executive Officer acceptance. This program would verify industrial and commercial site/source compliance with the Copermittees' ordinances, permits, and this Order. To the extent that third party certifications are conducted to fulfill the requirements of Section F.3.b.(4) above, the Copermittee retains responsibility for compliance with this Order and will be responsible for conducting and documenting quality assurance and quality control of the third-party certifications.

The Copermittee's proposed third party certification program must include the following:

- (i) A description of the procedures and measures for quality assurance and quality control;
 - (ii) A listing of sites/sources that may and may not participate in the program;
 - (iii) The representative percentage of certifications that would qualify to satisfy the inspection requirements in section F.3.b(4)(c) above;
 - (iv) Photo documentation of potential storm water violations identified during the third party inspection;
 - (v) Reporting to the Copermittee of identified significant potential violations, including imminent or observed illegal discharges, within 24 hours of the third party inspection;
 - (vi) Reporting to the Copermittee of all findings within one week of the inspection being conducted; and
 - (vii) Copermittee follow-up and/or enforcement actions for identified potential storm water violations within two business days of the potential violation report receipt.
- (d) Based upon site inspection findings, each Copermittee must implement all follow-up actions and enforcement necessary to comply with this Order.
- (e) To the extent that the San Diego Water Board has conducted an inspection of an industrial site during a particular year, the requirement for the responsible Copermittee to inspect this facility during the same year is deemed satisfied.

- (f) The Copermittees must track the number of inspections for the inventoried industrial and commercial sites/sources throughout the reporting period to verify that the sites/sources are inspected at the minimum frequencies listed in this Order.

(5) Enforcement of Industrial and Commercial Sites/Sources

Each Copermittee must enforce its storm water ordinance for all industrial and commercial sites/sources as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms must include appropriate sanctions to achieve compliance. Sanctions must include the following tools or their equivalent: Non-monetary penalties, fines, bonding requirements, liens and/or permit denials for non-compliance.

(6) Reporting of Non-Compliant Sites

Each Copermittee must annually notify the San Diego Water Board, prior to the commencement of the wet season, of any unresolved high level enforcement action (as defined in the Copermittees' JRMP) that poses a significant threat to water quality in its jurisdiction as a result of violations of their storm water ordinances.

c. RESIDENTIAL

Each Copermittee must implement a residential program that meets the requirements of this section, prevents illicit discharges into the MS4, reduces residential discharges of storm water pollutants from the MS4 to the MEP, and prevents residential discharges from the MS4 from causing or contributing to a violation of water quality standards.

(1) Threat to Water Quality Prioritization

Each Copermittee must identify residential areas and activities that pose a high threat to water quality. At a minimum, these must include:

- (a) Automobile repair, maintenance, washing, and parking;
- (b) Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
- (c) Disposal of trash, pet waste, green waste, and household hazardous waste (e.g., paints, cleaning products);
- (d) Any other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4;

- (e) Any residential areas tributary to and within the same hydrologic subarea as a CWA section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired; and
- (f) Any residential areas within or directly adjacent to or discharging directly to receiving waters within an environmentally sensitive area (as defined in Attachment C of this Order)

(2) BMP Implementation

- (a) Pollution Prevention: Each Copermitttee must actively encourage the use of pollution prevention methods by residents.
- (b) Designate BMPs: Each Copermitttee must designate minimum BMPs for high-threat-to-water quality residential areas and activities. The designated minimum BMPs for high-threat-to-water quality residential areas and activities must be area or activity specific.
- (c) Hazardous Waste BMPs: Each Copermitttee must facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation must include educational activities, public information activities, and establishment of collection sites operated individually and/or jointly by the Copermitttee(s) or a private entity. Curbside collection of household hazardous wastes is encouraged.
- (d) Implement BMPs: Each Copermitttee must implement, or require implementation of, the designated minimum BMPs and any additional measures necessary to comply with Sections A and B of this Order.
- (e) Each Copermitttee must implement, or require implementation of, BMPs for residential areas and activities that have not been designated a high threat to water quality, as necessary.

(3) Enforcement of Residential Areas and Activities

Each Copermitttee must enforce its storm water ordinance for all residential areas and activities as necessary to maintain compliance with this Order.

(4) Common Interest Areas (CIA) / Home Owner Association (HOA) Areas, and Mobile Home Parks

Each Copermitttee must ensure that effective measures exist and are implemented or required to be implemented to ensure that runoff within and from common interest developments, including areas managed by associations and mobile home parks, and meets the objectives of this section and Order.

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- (a) BMP Implementation: Each Copermittee must implement or require implementation of management measures based on a review of pertinent factors, including:
- (i) Maintenance duties and procedures typically used by CIA/HOA maintenance associations within its jurisdiction;
 - (ii) Whether streets and storm drains are publicly or privately owned within the CIA/HOA or mobile home park;
 - (iii) Whether the CIA/HOA area or mobile home park has been identified as a high priority residential area based on an evaluation of the site potential to generate pollutants contributing to a 303(d) listed waterbody or an observed action level exceedance; and
 - (iv) Other activities conducted or authorized by the HOA that may pose a significant risk to inland receiving waters.
- (b) Legal Authority and Enforcement: By July 1, 2012, each Copermittee must review, and if necessary update, its Municipal Code to verify that they have the legal authority to implement and enforce its ordinances within CIA/HOA areas and mobile home parks.

d. RETROFITTING EXISTING DEVELOPMENT

Each Copermittee must develop and implement a retrofitting program that meets the requirements of this section. The goals of the existing development retrofitting program are to address the impacts of existing development through retrofit projects that reduce impacts from hydromodification, promote LID, support riparian and aquatic habitat restoration, reduce the discharges of storm water pollutants from the MS4 to the MEP, and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards. Where feasible, at the discretion of the Copermittee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs.

- (1) The Copermittee(s) must identify and inventory existing areas of development (i.e. municipal, industrial, commercial, residential) as candidates for retrofitting. Potential retrofitting candidates must include but are not limited to:
- (a) Areas of development that generate pollutants of concern to a TMDL or an ESA;
 - (b) Receiving waters that are channelized or otherwise hardened;
 - (c) Areas of development tributary to receiving waters that are channelized or otherwise hardened;

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- (d) Areas of development tributary to receiving waters that are significantly eroded; and
 - (e) Areas of development tributary to an ASBS or SWQPA.
- (2) Each Copermittee must evaluate and rank the inventoried areas of existing developments to prioritize retrofitting. Criteria for evaluation must include but is not limited to:
- (a) Feasibility;
 - (b) Cost effectiveness;
 - (c) Pollutant removal effectiveness, including reducing pollutants exceeding action level;
 - (d) Tributary area potentially treated;
 - (e) Maintenance requirements;
 - (f) Landowner cooperation;
 - (g) Neighborhood acceptance;
 - (h) Aesthetic qualities;
 - (i) Efficacy at addressing concern; and
 - (j) Potential improvements on public health and safety.
- (3) Each Copermittee must consider the results of the evaluation in prioritizing work plans for the following year in accordance with Sections G.1 and J. Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs. Where feasible, the retrofit projects may be designed in accordance with the SSMP requirements within sections F.1.d.(3) through F.1.d.(8) and the Hydromodification requirements in Section F.1.h.
- (4) The Copermittees must cooperate with private landowners to encourage site specific retrofitting projects. The Copermittee must consider the following practices in cooperating and encouraging private landowners to retrofit their existing development:
- (a) Demonstration retrofit projects;
 - (b) Retrofits on public land and easements that treat runoff from private developments;
 - (c) Education and outreach;
 - (d) Subsidies for retrofit projects;
 - (e) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;
 - (f) Public and private partnerships; and
 - (g) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

- (5) The known completed retrofit BMPs must be tracked in accordance with Section F.1.f. Retrofit BMPs on publicly owned properties must be inspected per section F.1.f. Privately owned retrofit BMPs must be inspected as needed.
- (6) Where constraints on retrofitting preclude effective BMP deployment on existing developments at locations critical to protect receiving waters (as identified in section F.3.d.(1)), a Copermittee may propose a regional mitigation project to improve water quality. Such regional projects may include but are not limited to:
 - (a) Regional water quality treatment BMPs;
 - (b) Urban creek or wetlands restoration and preservation;
 - (c) Daylighting and restoring underground creeks;
 - (d) Localized rainfall storage and reuse to the extent such projects are fully protective of downstream water rights;
 - (e) Hydromodification project; and
 - (f) Removal of invasive plant species.
- (7) A retrofit project or regional mitigation project may qualify as a Watershed Water Quality Activity provided it meets the requirements in section G. Watershed Workplan.

4. ILLICIT DISCHARGE DETECTION AND ELIMINATION

Each Copermittee must implement a program that meets the requirements of this section to actively detect and eliminate illicit discharges and disposal into the MS4. The program must address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with section B of this Order.

a. PREVENT AND DETECT ILLICIT DISCHARGES AND CONNECTIONS

Each Copermittee must implement measures to prevent and detect illicit discharges to the MS4.

- (1) Legal Authority: Each Copermittee must retain legal authority to prevent and eliminate illicit discharges and connections to the MS4.
- (2) Inspections: Each Copermittee must include use of appropriate Copermittee personnel and contractors to assist in identifying illicit discharges and connections during their daily activities.

- (a) Visual inspections for illegal discharges and connections must be conducted during routine maintenance of all MS4 facilities.
- (b) Copermittee staff and contractors conducting non-MS4 field operations must be trained to report suspected illegal discharges and connections to proper Copermittee staff.

b. MAINTAIN MS4 MAP

Each Copermittee must maintain an updated map of its entire MS4 and the corresponding drainage areas within its jurisdiction. The use of GIS is strongly encouraged. The MS4 map must include all segments of the storm sewer system owned, operated, and maintained by the Copermittee, as well as all known locations of inlets that discharge and/or collect runoff into the Copermittee's MS4, all known locations of connections with other MS4s (e.g. Caltrans), and all known locations of all the outfalls that discharge runoff from the Copermittee's MS4. The accuracy of the MS4 map must be confirmed during dry weather field screening and analytical monitoring and must be updated at least annually. The MS4 map including any GIS layers must be submitted with the updated JRMP.

c. FACILITATE PUBLIC REPORTING OF ILLICIT DISCHARGES AND CONNECTIONS - PUBLIC HOTLINE

Each Copermittee must promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Copermittee must facilitate public reporting through development and operation of a public hotline. Public hotlines can be Copermittee-specific or shared by Copermittees. All storm water hotlines must be capable of receiving reports in both English and Spanish 24 hours per day and seven days per week. All reported incidents, and how each was resolved, must be summarized in each Copermittee's Annual Report.

d. DRY WEATHER FIELD SCREENING AND ANALYTICAL MONITORING

Each Copermittee must conduct dry weather field screening and analytical monitoring of MS4 outfalls and other portions of its MS4 within its jurisdiction to detect illicit discharges and connections in accordance with Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 in Attachment E of this Order.

e. INVESTIGATION / INSPECTION AND FOLLOW-UP

Each Copermittee must implement procedures to investigate and inspect portions of its MS4 that, based on the results of field screening, analytical monitoring, or other appropriate information, indicate a reasonable potential of containing illicit discharges, illicit connections, or other sources of pollutants in non-storm water.

- (1) Develop response criteria for data: Each Copermittee must develop, update, and use numeric criteria action levels (or other actions level criteria where appropriate) to determine when follow-up investigations will be performed in response to water quality monitoring. The criteria must include required non-storm water action levels (see Section C) and a consideration of 303(d)-listed waterbodies and environmentally sensitive areas (ESAs) as defined in Attachment C.
- (2) Respond to data: Each Copermittee must investigate portions of the MS4 for which water quality data or conditions indicates a potential illegal discharge or connection.
 - (a) Obvious illicit discharges (i.e. color, odor, or significant exceedances of action levels) must be investigated immediately.
 - (b) Field screen data: Within two business days of receiving dry weather field screening results that exceed action levels, the Copermittee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.
 - (c) Analytical data: Within five business days of receiving analytical laboratory results that exceed action levels, the Copermittee(s) having jurisdiction must either initiate an investigation to identify the source of the discharge or document the rationale for why the discharge does not pose a threat to water quality and does not need further investigation. This documentation must be included in the Annual Report.
- (3) Respond to notifications: Each Copermittee must respond to and resolve each reported incident (e.g., public hotline, staff notification, etc.) made to the Copermittee in a timely manner. Criteria may be developed to assess the validity of, and prioritize the response to, each report.

f. ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

Each Copermittee must take immediate action to initiate steps necessary to eliminate all detected illicit discharges, illicit discharge sources, and illicit connections after detection within its jurisdiction. Elimination measures may include an escalating series of enforcement actions for those illicit discharges that are not a serious threat to public health or the environment. Illicit discharges that pose a serious threat to the public's health or the environment must be eliminated immediately.

g. ENFORCE ORDINANCES

Each Copermittee must implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4 and to eliminate detected illicit discharges and connections to its MS4.

h. PREVENT AND RESPOND TO SEWAGE SPILLS (INCLUDING FROM PRIVATE LATERALS AND FAILING SEPTIC SYSTEMS) AND OTHER SPILLS

Each Copermittee must implement management measures and procedures (including a notification mechanism) to prevent, respond to, contain and clean up all sewage (see below) and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Copermittees must coordinate with spill response teams to prevent entry of spills into the MS4 and contamination of surface water, ground water and soil. Each Copermittee must coordinate spill prevention, containment and response activities throughout all appropriate Copermittee departments, programs and agencies so that maximum water quality protection is available at all times.

5. PUBLIC PARTICIPATION COMPONENT

Each Copermittee must incorporate a mechanism for public participation in the updating, development, and implementation of the JRMP.

6. EDUCATION COMPONENT

Each Copermittee must implement education programs to (1) measurably increase the knowledge regarding MS4s, impacts of runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutants in storm water discharges and eliminate prohibited non-storm water discharges to MS4s and the environment. At a minimum, the education programs must meet the requirements of this section and address the following target communities:

DIRECTIVES F: JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM
F.4 ILLICIT DISCHARGE DETECTION AND ELIMINATION
F.5 PUBLIC PARTICIPATION
F.6 EDUCATION

- Copermittee Departments and Personnel
- New Development / Redevelopment Project Applicants, Developers, Contractors, Property Owners, and other Responsible Parties
- Construction Site Owners and Operators
- Commercial Owners and Operators
- Industrial Owners and Operators
- Residential Community and General Public

a. **GENERAL REQUIREMENTS**

(1) At a minimum, the Copermittee education programs must educate each target community on the following topics, as appropriate to the target community's potential storm water and non-storm water discharges to the MS4:

- (a) Applicable water quality laws, regulations, permits, and requirements;
- (b) Best management practices;
- (c) General runoff concepts;
- (d) Existing water quality, including local water quality conditions, impaired waterbodies and environmentally sensitive areas; and
- (e) Other topics, as determined by the Copermittee(s), such as public reporting mechanisms, water conservation, low-impact development techniques, and public health and vector issues associated with runoff.

(2) Each Copermittee must implement educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.

b. **SPECIFIC REQUIREMENTS**

(1) Copermittee Departments and Personnel

- (a) Each Copermittee must implement an education program so its staff and contractors (and Planning Boards and Elected Officials, if applicable) responsible for implementing the requirements of this Order have an understanding of the following topics as applicable to their responsibilities:
 - (i) Applicable water quality laws and regulations;
 - (ii) The potential effects and impacts that Copermittee departments and personnel activities related to their job duties can have on water quality);
 - (iii) Plan review policies and procedures to verify consistent application;
 - (iv) Methods of minimizing impacts to receiving water quality resulting from development, construction, and other potential pollutant generating activities;

- (v) Proper implementation of erosion and sediment control, source control, treatment control, and other BMPs to minimize the impacts to receiving water quality resulting from development, construction, and other potential pollutant generating activities;
 - (vi) Applicable recordkeeping and tracking mechanisms; and
 - (vii) Inspection and enforcement procedures, BMP implementation, and review of monitoring data.
- (b) Each Copermittee must train its staff responsible for oversight and conducting storm water compliance inspections and enforcement of construction activities (e.g. construction, building, code enforcement, grading review staffs, inspectors, and other responsible construction staff) annually prior to the rainy season.
- (c) Each Copermittee must train its staff responsible for conducting storm water compliance inspections and enforcement of industrial and commercial facilities at least once a year.

(2) New Development / Redevelopment and Construction Sites

As early in the planning and development process as possible and all through the permitting and construction process, each Copermittee must notify parties responsible for the project about the importance of educating all construction workers in the field about storm water issues and BMPs, in addition to the topics under Section F.6.a.(1).

(3) Commercial and Industrial Sites / Sources

At least once during the five-year period of this Order, each Copermittee must notify the owner/operator of each of its inventoried commercial and industrial site/source of the BMP requirements applicable to the site/source.

(4) Residential and General Public

Each Copermittee shall collaboratively conduct or participate in development and implementation of a program to educate residential and general public target communities. The Copermittee residential and general public education programs must address potential pollutant generating activities (e.g., car washing, mobile operations, yard maintenance) and pollutant generating products (e.g., pesticides, fertilizers, household chemicals). The target audiences of the residential and general public education programs must include underserved target audiences (e.g., disadvantaged communities), residents and managers of CIA/HOA areas, and owners and residents of mobile home parks.

G. WATERSHED WATER QUALITY WORKPLAN

Each Copermittee must collaborate with other Copermittees to develop and implement a Watershed Water Quality Workplan (Watershed Workplan) to identify, prioritize, address, and mitigate the highest priority water quality issues/pollutants in the Upper Santa Margarita Watershed.

1. Watershed Workplan Components

The work plan must, at a minimum:

- a. Characterize the receiving water quality in the watershed. Characterization must include assessment and analysis of regularly collected water quality data, reports, monitoring and analysis generated in accordance with the requirements of the Receiving Waters Monitoring and Reporting Program, as well as applicable information available from other public and private organizations. This characterization must include an updated watershed map.
- b. Identify and prioritize water quality problem(s) in terms of constituents by location, in the watershed's receiving waters. In identifying water quality problem(s), the Copermittees must, at a minimum, give consideration to TMDLs, receiving waters listed on the CWA section 303(d) list, waters with persistent violations of water quality standards, toxicity, or other impacts to beneficial uses, and other pertinent conditions.
- c. Identify the likely sources, pollutant discharges and/or other factors causing the highest water quality problem(s) within the watershed. Efforts to determine such sources must include, but not be limited to: use of information from the construction, industrial/commercial, municipal, and residential source identification programs required within the JRMP of this Order; water quality monitoring data collected as part of the Receiving Water Monitoring and Reporting Program required by this Order, and additional focused water quality monitoring to identify specific sources within the watershed.
- d. Develop a watershed BMP implementation strategy to attain receiving water quality objectives in the identified highest priority water quality problem(s) and locations. The BMP implementation strategy must include a schedule for implementation of the BMPs to abate specific receiving water quality problems and a list of criteria to be used to evaluate BMP effectiveness. Identified watershed water quality problems may be the result of jurisdictional discharges that will need to be addressed with BMPs applied in a specific jurisdiction in order to generate a benefit to the watershed. This implementation strategy must include a map of any implemented and/or proposed BMPs.
- e. Develop a strategy to monitor improvements in receiving water quality directly

resulting from implementation of the BMPs described in the Watershed Workplan. The monitoring strategy must review the necessary data to report on the measured pollutant reduction that results from proper BMP implementation. Monitoring must, at a minimum, be conducted in the receiving water to demonstrate reduction in pollutant concentrations and progression towards attainment of receiving water quality objectives.

- f. Establish a schedule for development and implementation of the Watershed strategy outlined in the Workplan. The schedule must, at a minimum, include forecasted dates of planned actions to address Provisions E.2(a) through E.2(e) and dates for watershed review meetings through the remaining portion of this Permit cycle. Annual watershed workplan review meetings must be open to the public and appropriately publically noticed such that interested parties may come and provide comments on the watershed program.

2. Watershed Workplan Implementation

Watershed Copermittee's must implement the Watershed Workplan within 90 days of submittal unless otherwise directed by the San Diego Water Board.

3. Copermittee Collaboration

Watershed Copermittees must collaborate to develop and implement the accepted Watershed Workplan. Watershed Copermittee collaboration must include frequent regularly scheduled meetings. The Copermittees must pursue efforts to obtain any interagency agreements, or other coordination efforts, with non-Copermittee owners of the MS4 (such as Caltrans, Native American tribes, and school districts) to control the contribution of pollutants from one portion of the shared MS4 to another portion of the shared MS4. The Copermittees must, as appropriate, participate in watershed management efforts to address water quality issues within the entire Santa Margarita Watershed (such as the County of San Diego and U.S. Marine Corps Camp Pendleton).

4. Public Participation

Watershed Copermittees must implement a watershed-specific public participation mechanism within each watershed. A required component of the watershed-specific public participation mechanism must be a minimum 30-day public review of and opportunity to comment on the Watershed Workplan prior to submittal to the San Diego Water Board. The Workplan must include a description of the public participation mechanisms to be used and identification of the persons or entities anticipated to be involved during the development and implementation of the Watershed Workplan.

5. Watershed Workplan Review and Updates

Watershed Copermittees must review and update the Watershed Workplan annually to identify needed changes to the prioritized water quality problem(s) listed in the workplan. All updates to the Watershed Workplan must be presented during an Annual Watershed Review Meeting. Annual Watershed Review Meetings must occur once every calendar year and be conducted by the Watershed Copermittees. Annual Watershed Review Meetings must be open to the public and adequately noticed. Individual Watershed Copermittees must also review and modify their jurisdictional programs and JRMP Annual Reports, as necessary, so that they are consistent with the updated Watershed Workplan.

6. Pyrethroid Toxicity Reduction Evaluation

The Watershed Copermittees must incorporate the pyrethroid pollutant reduction program¹⁸ into the Watershed Workplan. The pyrethroid pollutant reduction program must include the following elements:

- a. Pursue state and federal regulatory change;
- b. Implement a set of source controls targeted specifically at urban pyrethroid use;
- c. Through the annual reporting process, monitor the implementation of those controls, assess effectiveness, and identify sources or areas where additional effort is needed;
- d. Implement additional controls as needed; and
- e. Continue to monitor implementation, as well as conditions within the target receiving waters, assess effectiveness, and re-evaluate control programs.

H. FISCAL ANALYSIS

1. Secure Resources: Each Copermittee must exercise its full authority to secure the resources necessary to meet all requirements of this Order.
2. Annual Analysis: Each Copermittee must conduct an annual fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs required by this Order. The analysis must include estimated expenditures for the current reporting period, the preceding period, and the next reporting period.
 - a. Each analysis must include a description of the source of funds that are proposed to meet the necessary expenditures.
 - b. Each analysis must include a narrative description of circumstances resulting in a 25 percent or greater annual change for any budget line items.

¹⁸ The pyrethroid pollutant reduction program is described in the "Riverside County – Santa Margarita Region Pyrethroid Source Identification Toxicity Reduction Evaluation, Final Phase II Report", January 2009 by MACTEC.

3. Annual Reporting: Each Copermittee must submit its annual fiscal analysis with the annual JRMP report.

I. TOTAL MAXIMUM DAILY LOADS

1. The waste load allocations (WLAs) of fully approved and adopted TMDLs are incorporated as Water Quality Based Effluent Limitations on a pollutant by pollutant, watershed by watershed basis. Early TMDL requirements, including monitoring, may be required and inserted into this Order pursuant to Finding E.10.
2. The Cities of Wildomar and Murrieta must comply with the requirements and WLAs assigned to the discharges from their MS4s contributing to the Lake Elsinore/Canyon Lake (San Jacinto Watershed) Nutrient TMDLs as specified in Section VI.D.2 of the Santa Ana Water Board's Order R8-2010-0033, including relevant sections of the fact sheet and findings, and subsequent revisions thereto.

J. PROGRAM EFFECTIVENESS ASSESSMENT AND REPORTING

Beginning with the Annual Report due in 2013, each Copermittee must annually assess and report upon the effectiveness of its JRMP and Watershed Workplan implementation to (1) reduce the discharge of storm water pollutants from its MS4 to the MEP; (2) prohibit non-stormwater discharges; and (3) prevent runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.

1. Program Effectiveness Assessments

a. IDENTIFY EFFECTIVENESS ASSESSMENTS

With the JRMP and Watershed Workplan submittal, each Copermittee must establish assessment measures or methods for each of the six outcome levels described by CASQA¹⁹, using data from each JRMP program component, the MRP, and the Watershed Workplan.

- (1) Assessment interval: For each established assessment measure or method, an assessment interval must be established as appropriate to the measure or method.
- (2) Projected Timeframe: For each established assessment measure or method, each Copermittee must identify the projected timeframe within which the associated outcome level can adequately assess change.

¹⁹ Effectiveness assessment outcome levels as defined by CASQA are defined in Attachment C of this Order. See "*Municipal Stormwater Program Effectiveness Assessment Guidance*" (CASQA, May 2007) for guidance for assessing program activities at the various outcome levels.

b. PERFORM ASSESSMENTS

- (1) Annually: Each year, the Copermittee must perform each applicable assessment based on the associated assessment interval, and determine whether the desired outcome has been met.
- (2) With the submittal of the Report of Waste Discharge, the Copermittees must determine whether their program implementation is resulting in the protection and/or improvement of water quality through an Integrated Assessment.

2. Respond to Assessments

- a. Where the assessments indicate that the desired outcome level has not been achieved at the end of the projected timeframe, the Copermittee must review its applicable activities and BMPs to identify any modifications and improvements needed to maximize effectiveness, as necessary to comply with this Order. If the Copermittee determines that the existing activities/BMPs are adequate, or that the projected timeframe should be extended, justification and an updated timeframe for attainment of the outcome level must be provided in the Annual Report.
- b. Each Copermittee must develop and implement a work plan and schedule to address any program modifications and improvements in response to the findings of its assessment. The work plan and schedule must be provided and updated with the applicable Annual Report. The work plan must include, at a minimum, the following:
 - (1) The problems and priorities identified during the assessment;
 - (2) A list of priority pollutants and known or suspected sources;
 - (3) A brief description of the strategy employed to reduce, eliminate or mitigate the negative impacts;
 - (4) A description and schedule for new and/or modified BMPs. The schedule is to include dates for significant milestones;
 - (5) A description of how the selected activities will address an identified high priority problem. This will include a description of the expected effectiveness and benefits of the new and/or modified BMPs;
 - (6) A description of implementation effectiveness metrics;
 - (7) A description of how efficacy results will be used to modify priorities and implementation; and
 - (8) A review of past activities implemented, progress in meeting water quality standards, and planned program adjustments.

3. Assessment and Response Reporting

Each Copermittee must include a summary of its effectiveness assessments within each Annual Report. Beginning with the FY 2012-2013 Annual Report, the Program Effectiveness reporting must include:

- a. The results of each of the effectiveness assessments performed pursuant to J.1.b, including the demonstrated CASQA effectiveness level(s);
- b. Responses to effectiveness assessments: A description of any program modifications planned in accordance with section J.2, including the work plan and identified schedule for implementation. The description must include the basis for determining that each modified activity and/or BMP represents an improvement expected to result in improved water quality; and
- c. A description of any steps to be implemented to improve the Copermittee's ability to assess program effectiveness.

K. REPORTING

The Copermittees may propose alternate reporting criteria and schedules, as part of their updated JRMP, for the Executive Officer's acceptance.

1. Runoff Management Plans

a. JURISDICTIONAL RUNOFF MANAGEMENT PLANS

- (1) The written account of the overall program to be conducted by each Copermittee to meet the jurisdictional requirements of section F of this Order is referred to as the Jurisdictional Runoff Management Plan (JRMP). Each Copermittee must revise and update its existing JRMP so that it describes all activities the Copermittee will undertake to implement the requirements of this Order. Each Copermittee must submit its updated and revised JRMP to the San Diego Water Board no later than June 30, 2012.
- (2) At a minimum, each Copermittee's JRMP must be updated and revised to demonstrate compliance with each applicable section of this Order.

b. WATERSHED WORKPLANS

Copermittees must update and revise the Watershed Workplan to describe any changes in water quality problems or priorities, and any necessary change to actions Copermittees will take to implement jurisdictional or watershed BMPs to address those identified. The Copermittees must assemble and submit the Watershed Workplan to the San Diego Water Board no later than June 30, 2012, and must implement the Workplan within 90 days unless otherwise directed by the San Diego Water Board.

2. Other Required Reports and Plans**a. SSMP UPDATES**

- (1) Copermittees must submit their updated SSMP in accordance with the applicable requirements of section F.1 with the JRMP by June 30, 2012.
- (2) Within 180 days of determination that the SSMP is in compliance with this Order's provisions, each Copermittee must amend its ordinances consistent with the SSMP and implement the updated SSMP. Any amended or new ordinances must be submitted to the San Diego Water Board the applicable Annual Report.

b. HMP

- (1) By June 30, 2013, the Copermittees must submit to the San Diego Water Board Executive Officer a draft HMP that has been reviewed by the public, including identification of the appropriate limiting range of flow rates in accordance with the applicable requirements of section F.1.h.
- (2) Within 180 of receiving San Diego Water Board comments on the draft HMP, the Copermittees must submit a final HMP that addressed the San Diego Water Board's comments.
- (3) Within 90 days of receiving a finding of adequacy from the Executive Officer each Copermittee must incorporate and implement the HMP for all Priority Development Projects.
- (4) Prior to acceptance of the HMP by the San Diego Water Board, the early implementation measures likely to be included in the HMP shall be encouraged by the Copermittees.

c. REPORT OF WASTE DISCHARGE

The Copermitees must submit to the San Diego Water Board, no later than 180 days in advance of the expiration date of this Order, a Report of Waste Discharge (ROWD) as an application for issuance of new waste discharge requirements. The fourth annual report for this Order may supplement the ROWD, provided the ROWD contains the minimum information below.

At a minimum, the ROWD must include the following: (1) Proposed changes to the Copermitees' runoff management programs; (2) Proposed changes to monitoring programs; (3) Justification for proposed changes; (4) Name and mailing addresses of the Copermitees; (5) Names and titles of primary contacts of the Copermitees; (6) Any other information necessary for the reissuance of this Order and (7) Any other information required by federal regulations for permit reapplications.

3. Annual Reports**JURISDICTIONAL RUNOFF MANAGEMENT PROGRAM (JRMP) ANNUAL REPORTS**

- a. Each Copermitee must generate individual JRMP Annual Reports that cover implementation of its jurisdictional activities during the past annual reporting period. Each Annual Report must verify and document compliance with this Order as directed in this section. Each Copermitee must retain records in accordance with the Standard Provisions in Attachment B of this Order, available for review, that document compliance with each requirement of this Order. The reporting period for these annual reports must be the previous fiscal year.
- b. Each Copermitee must submit its JRMP Annual Reports to the San Diego Water Board by October 31 of each year, beginning on October 31, 2013.
- c. Each JRMP Annual Report must contain, at a minimum, the following information, as applicable to the Copermitee:
 - (1) Information required to be reported annually in Section H (Fiscal Analysis) of this Order;
 - (2) Information required to be reported annually in Section J (Program Effectiveness) of this Order;
 - (3) The completed Reporting Checklist found in Attachment D; and
 - (4) Information for each program component as described in the following Table 5:

Table 5. Annual Reporting Requirements

Program Component	Reporting Requirement
New Development	1. All updated relevant sections of the General Plan and environmental review process and a description of any planned updates within the next annual reporting period, if applicable;
	2. All revisions to the SSMP, including where applicable: (a) Identification and summary of where the SSMP fails to meet the requirements of this Order; (b) Updated procedures for identifying pollutants of concern for each Priority Development Project; (c) Updated treatment BMP ranking matrix; (d) Updated site design and treatment control BMP design standards;
	3. Number of Priority Development Projects reviewed and approved during the reporting period. Brief description of BMPs required at approved Priority Development Projects. Verification that site design, source control, and treatment BMPs were required on all applicable Priority Development Projects;
	4. Name and location of all Priority Development Projects that were granted a waiver from implementing LID BMPs pursuant to section F.1.d.(4) during the reporting period;
	5. Updated watershed-based BMP maintenance tracking database of approved treatment control BMPs and treatment control BMP maintenance within its jurisdiction, including updates to the list of high-priority Priority Development Projects; and verification that the requirements of this Order were met during the reporting period;

Table 5. Annual Reporting Requirements (Cont'd)

Program Component	Reporting Requirement
New Development (Cont'd)	6. Name and brief description of all approved Priority Development Projects required to implement hydrologic control measures in compliance with section F.1.h including a brief description of the management measures planned to protect downstream beneficial uses and prevent adverse physical changes to downstream stream channels;
	7. Number and description of all enforcement activities applicable to the new development and redevelopment component and a summary of the effectiveness of those activities.
Construction	1. All updated relevant ordinances and description of planned ordinance updates within the next annual reporting period, if applicable;
	2. A description of any changes to procedures used for identifying priorities for inspecting sites and enforcing control measures that consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality;
	3. Any changes to the designated minimum and enhanced BMPs;
	4. Summary of the inspection program, including the following information: (a) Total number and date of inspections conducted at each facility; (b) Number, date, and types of enforcement actions by facility; (c) Brief description of each high-level enforcement actions at construction sites including the effectiveness of the enforcement. Supporting paper (or electronic) files must be maintained by the Copermittees and made available upon San Diego Water Board request. Supporting files must include a record of inspection dates, the results of each inspection, photographs (if any), and a summary of any enforcement actions taken.
Municipal	1. Updated source inventory;
	2. All changes to the designated municipal BMPs;
	3. Descriptions of any changes to procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies;
	4. Summary and assessment of BMP retrofits implemented at flood control structures, including: (a) List of projects retrofitted; (b) List and description of structures evaluated for retrofitting; (c) List of structures still needing to be evaluated and the schedule for evaluation;

Table 5. Annual Reporting Requirements (Cont'd)

Program Component	Reporting Requirement
Municipal (Cont'd)	5. Summary of the municipal structural treatment control operations and maintenance activities, including: (a) Number of inspections and types of facilities; (b) Summary of findings;
	6. Summary of the MS4 and MS4 facilities operations and maintenance activities, including: (a) Number and types of facilities maintained; (b) Amount of material removed; (c) List of facilities planned for bi-annual inspections and the justification;
	7. Summary of the municipal areas/programs inspection activities, including: (a) Number and date of inspections conducted at each facility; (b) The BMP violations identified during the inspection by facility; (c) Number, date and types of enforcement actions by facility; (d) Summary of inspection findings and follow-up activities for each facility;
	8. Description of activities implemented to address sewage infiltration into the MS4;
	9. Description of BMPs and their implementation for unpaved roads construction and maintenance.
Commercial / Industrial	1. Updated inventory of commercial / industrial sources;
	2. Summary of the inspection program, including the following information: (a) Number and date of inspections conducted at each facility or mobile business; (b) The BMP violations identified during the inspection by facility; (c) Number, date, and types of enforcement actions by facility or mobile business; (d) Brief description of each high-level enforcement actions at commercial/industrial sites including the effectiveness of the enforcement and follow-up activities for each facility;
	3. All changes to designated minimum and enhanced BMPs;
	4. A list of industrial sites, including each name, address, and SIC code, that the Copermitee suspects may require coverage under the General Industrial Permit, but has not submitted an NOI.

Table 5. Annual Reporting Requirements (Cont'd)

Program Component	Reporting Requirement
Residential	1. All updated minimum BMPs required for residential areas and activities;
	2. Quantification and summary of applicable runoff and storm water enforcement actions within residential areas and activities;
	3. Description of efforts to manage runoff and storm water pollution in common interest areas and mobile home parks.
Retrofitting Existing Development	1. Updated inventory and prioritization of existing developments identified as candidates for retrofitting;
	2. Description of efforts to retrofit existing developments during the reporting year;
	3. Description of efforts taken to encourage private landowners to retrofit existing development;
	4. A list of all retrofit projects that have been implemented, including site location, a description of the retrofit project, pollutants expected to be treated, and the tributary acreage of runoff that will be treated;
	5. Any proposed retrofit or regional mitigation projects and timelines for future implementation;
	6. Any proposed changes to the Copermittee's overall retrofitting program.
Illicit Discharge Detection and Elimination	1. Any changes to the legal authority to implement Illicit Discharge Detection and Elimination activities;
	2. Any Changes to the established investigation procedures;
	3. Any changes to public reporting mechanisms, including phone numbers and web pages;
	4. Summaries of illicit discharges (including spills and water quality data events) and how each significant case was resolved;
	5. A description of instances when field screening and analytical data exceeded action levels, including those instances for which no investigation was conducted;
	6. A description of follow-up and enforcement actions taken in response to investigations of illicit discharges and a description of the outcome of the investigation/enforcement actions.
Workplans	Updated workplans including priorities, strategy, implementation schedule and effectiveness evaluation.

d. Each JRMP Annual Report must also include the following information regarding non-storm water discharges (see Section B.2. of this Order):

- (1) Identification of non-storm water discharge categories identified as a source of pollutants to waters of the U.S;
- (2) A description of any updates to ordinances, orders, or similar means to prohibit non-storm water discharge categories identified under section B.2 above ;
- (3) Identification of any control measures to be required and implemented for

non-storm water discharge categories identified as needing controls by the San Diego Water Board; and

- (4) A description of a program to address pollutants from non-emergency fire fighting flows identified by the Copermittee to be significant sources of pollutants.

4. Interim Reporting Requirements

For the reporting periods, prior to submittal of the JRMP, each JRMP Annual Report must be submitted in accordance with the requirements and deadlines described in Order No. 2004-001.

5. Universal Reporting Requirements

All submittals must include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee must submit a signed certified statement covering its responsibilities for each applicable submittal. The Principal Copermittee must submit a signed certified statement covering its responsibilities for each applicable submittal and the sections of the submittals for which it is responsible.

L. MODIFICATION OF PROGRAMS

Modifications of JRMPs and/or Watershed Workplan may be initiated by the Executive Officer of the San Diego Water Board or by the Copermittees. Requests by Copermittees must be made to the Executive Officer, and must be submitted during the annual review process. Requests for modifications should be incorporated, as appropriate, into the Annual Reports or other deliverables required or allowed under this Order.

1. Minor modifications to JRMPs, and/or Watershed Workplan, may be accepted by the Executive Officer where the Executive Officer finds the proposed modification complies with all discharge prohibitions, receiving water limitations, and other requirements of this Order.
2. Proposed modifications that are not minor require amendment of this Order in accordance with this Order's rules, policies, and procedures.

M. PRINCIPAL COPERMITTEE RESPONSIBILITIES

Within 180 days of adoption of this Order, the Copermittees must designate the Principal Copermittee and notify the San Diego Water Board of the name of the Principal Copermittee. The Principal Copermittee must, at a minimum:

1. Serve as liaison between the Copermittees and the San Diego Water Board on general permit issues, and when necessary and appropriate, represent the Copermittees before the San Diego Water Board.
2. Coordinate permit activities among the Copermittees and facilitate collaboration on the development and implementation of programs required under this Order.
3. Coordinate the submittal of the documents and reports as required by section K of this Order and Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 in Attachment E of this Order.

N. RECEIVING WATERS AND MS4 DISCHARGE MONITORING AND REPORTING PROGRAM

Pursuant to CWC section 13267, the Copermittees must comply with all the requirements contained in Receiving Waters and MS4 Discharge Monitoring and Reporting Program (MRP) No. R9-2010-0016 in Attachment E of this Order.

O. STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS

1. Each Copermittee must comply with Standard Provisions, Reporting Requirements, and Notifications contained in Attachment B of this Order. This includes 24 hour/5 day reporting requirements for any instance of non-compliance with this Order as described in section 5.e of Attachment B.
2. All plans, reports and subsequent amendments submitted in compliance with this Order must be implemented immediately (or as otherwise specified). All submittals by Copermittees must be adequate to implement the requirements of this Order.

DIRECTIVES M: PRINCIPAL COPERMITTEE RESPONSIBILITIES
DIRECTIVES N: RECEIVING WATERS AND MS4 DISCHARGE MONITORING AND
REPORTING PROGRAM
DIRECTIVES O: STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND
NOTIFICATIONS

P. ADDITIONAL PROVISIONS

The Executive Officer shall meet with Camp Pendleton and other stakeholders at six (6) month intervals to identify and investigate water quality impacts, flow impacts, and impacts to water rights that may derive from the implementation of Low Impact Development BMPs required by Order R9-2010-0016 as they are developed by the storm water Copermittees. Any key issues or amendments to the Order that derive from those analyses and discussions will be promptly brought to the San Diego Water Board for their consideration.

I, David W. Gibson, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on November 10, 2010.



David W. Gibson
Executive Officer

ATTACHMENT A**BASIN PLAN PROHIBITIONS**

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050(c) of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in California Water Code Section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in California Water Code Section 13264 is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by a NPDES permit or a dredged or fill material permit (subject to the exemption described in California Water Code Section 13376) is prohibited.
4. Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this Regional Board issues a NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Department of Health Services and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the Regional Board.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.
8. Any discharge to a storm water conveyance system that is not composed entirely of "storm water" is prohibited unless authorized by the Regional Board. [The federal regulations, 40 CFR 122.26(b)(13), define storm water as storm water

- runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities. [§122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].
9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.
 10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.
 11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
 12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
 13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.
 14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
 15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.

ATTACHMENT B**STANDARD PROVISIONS, REPORTING REQUIREMENTS, AND NOTIFICATIONS****1. STANDARD PROVISIONS – PERMIT COMPLIANCE [40 CFR 122.41]**

- (a) *Duty to comply* [40 CFR 122.41(a)].
- (1) The Copermitttee must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - (2) The Copermitttee shall comply with effluent standards or prohibitions established under section 307(a) of the CWA toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the Order has not yet been modified to incorporate the requirement.
- (b) *Need to halt or reduce activity not a defense* [40 CFR 122.41(c)]. It shall not be a defense for the Copermitttee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
- (c) *Duty to mitigate* [40 CFR 122.41(d)]. The Copermitttee shall take all reasonable steps to minimize or prevent any discharge or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.
- (d) *Proper operation and maintenance* [40 CFR 122.41(e)]. The Copermitttee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Copermitttee to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Copermitttee only when necessary to achieve compliance with the conditions of this Order.
- (e) *Property rights* [40 CFR 122.41(g)].
- (1) This Order does not convey any property rights of any sort or any exclusive privilege.
 - (2) The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.
- (f) *Inspection and entry* [40 CFR 122.41(i)]. The Copermitttee shall allow the Regional Water Quality Control Board, San Diego Region (Regional Board), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency

(USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon presentation of credentials and other documents as may be required by law, to:

- (1) Enter upon the Copermittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (3) Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (4) Sample or monitor, at reasonable times, for the purpose of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location.

(g) *Bypass* [40 CFR 122.41(m)]

(1) Definitions:

- i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (2) Bypass not exceeding limitations - The Copermittee may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance (g)(3), (g)(4) and (g)(5) below.
- (3) Prohibition of Bypass - Bypass is prohibited, and the Regional Board may take enforcement action against a Copermittee for bypass, unless:
- i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - iii) The Copermittee submitted notice as required under Standard Provisions – Permit Compliance (g)(3) above.

(4) Notice

- i) Anticipated bypass. If the Copermitttee knows in advance of the need for a bypass, it shall submit a notice, if possible at least ten days before the date of the bypass.
 - ii) Unanticipated bypass. The Copermitttee shall submit notice of an unanticipated bypass as required in Standard Provisions 5(e) below (24-hour notice).
- (h) *Upset* [40 CFR 122.41(n)] Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the Copermitttee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance (h)(2) below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (2) Conditions necessary for a demonstration of upset. A Copermitttee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- i) An upset occurred and that the Copermitttee can identify the cause(s) of the upset;
 - ii) The permitted facility was at the time being properly operated;
 - iii) The Copermitttee submitted notice of the upset as required in Standard Provisions – Permit Compliance (5)(e)(ii)(B) below (24-hour notice); and
 - iv) The Copermitttee complied with any remedial measures required under Standard Provisions – Permit Compliance 1(c) above.
- (3) Burden of Proof. In any enforcement proceeding, the Copermitttee seeking to establish the occurrence of an upset has the burden of proof.

2. STANDARD PROVISIONS – PERMIT ACTION

- (a) *General* [40 CFR 122.41(f)] This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Copermitttee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition.
- (b) *Duty to reapply* [40 CFR 122.41(b)]. If the Copermitttee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Copermitttee must apply for and obtain new permit.
- (c) *Transfers*. This Order is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and

reissuance of the Order to change the name of the Copermittee and incorporate such other requirements as may be necessary under the CWA and the CWC.

3. STANDARD PROVISIONS – MONITORING

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. [40 CFR Section 122.41 (j) (1)]
- (b) Monitoring results must be conducted according to test procedures under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR Section 122.41(j)(4)][40 CFR Section 122.44(i)(1)(iv)].

4. STANDARD PROVISIONS – RECORDS

- (a) Except for records of monitoring information required by this Order related to the Copermittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), the Copermittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application, This period may be extended by request of the Regional Water Board Executive Officer at any rime [40 CFR Section 122.41(j)(2)].
- (b) *Records of monitoring information* [40 CFR 122.41(j) (3)] shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The individual(s) who performed the sampling or measurements;
 - (3) The date(s) analyses were performed;
 - (4) The individual(s) who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses.
- (c) *Claims of confidentiality* [40 CFR Section 122.7(b)] of the following information will be denied:
 - (1) The name and address of any permit applicant or Copermittee; and
 - (2) Permit applications and attachments, permits and effluent data.

5. STANDARD PROVISIONS – REPORTING

- (a) *Duty to provide information* [40 CFR 122.41(h)]. The Copermittee shall furnish to the Regional Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Board, SWRCB, or USPEA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Copermittee shall also furnish to the Regional Board, SWRCB, or USEPA, copies of records required to be kept by this Order.

(b) *Signatory and Certification Requirements* [40 CFR 122.41(k)]

- (1) All applications, reports, or information submitted to the Regional Board, SWRCB, or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting 5(b)ii, 5(b)iii, 5(b)iv, and 5(b) (see 40 CFR 122.22)
- (2) *Applications* [40 CFR 122.22(a)(3)] All permit applications shall be signed by either a principal executive officer or ranking elected official.
- (3) *Reports* [40 CFR 122.22(b)]. All reports required by this Order, and other information requested by the Regional Board, SWRCB, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5(b)(2) above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - i) The authorization is made in writing by a person described in Standard Provisions-Reporting 5(b)(2) above;
 - ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and,
 - iii) The written authorization is submitted to the Regional Water Board and State Water Board.
- (4) *Changes to authorization* [40 CFR Section 122.22(c)] If an authorization under Standard Provisions – Reporting 5(b)(3) of this reporting requirement is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5(b)(3) above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (5) *Certification* [40 CFR Section 122.22(d)] Any person signing a document under Standard Provisions – Reporting 5(b)(2), or 5(b)(3) above shall make the following 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.”

(c) *Monitoring reports.* [40 CFR 122.41(l)(4)]

- (1) Monitoring results shall be reported at the intervals specified in the Receiving Waters and Runoff Monitoring and Reporting Program No. R9-2009-0002.
- (2) Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Board or SWRCB for reporting results of mentoring of sludge use or disposal practices.
- (3) If the Copermitttee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Board.
- (4) Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.

(d) *Compliance schedules.* [40 CFR Section 122.41(l)(5)] Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order shall be submitted no later than 14 days following each schedule date.

(e) *Twenty-four hour reporting* [40 CFR Section 122.41(l)(6)]

- (1) The Copermitttee shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Copermitttee becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Copermitttee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- (2) The following shall be included as information, which must be reported within 24 hours under this paragraph:
 - i) Any unanticipated bypass that exceeds any effluent limitation in the Order (See 40 CFR 122.41(g)).
 - ii) Any upset which exceeds any effluent limitation in this Order.
- (3) The Regional Board may waive the above-required written report under this provision on a case-by-case basis if the oral report has been received within 24 hours.

(f) *Planned changes.* [40 CFR Section 122.41(l)(1)] The Copermitttee shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when:

- (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants, which are not subject to effluent limitations in this Order.
 - (3) The alteration or addition results in a significant change in the Copermitee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing Order, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (g) *Anticipated noncompliance.* [40 CFR Section 122.41(l)(7)] The Copermitee shall give advance notice to the Regional Board or SWRCB of any planned changes in the permitted facility or activity, which may result in noncompliance with Order requirements.
- (h) *Other noncompliance* [40 CFR Section 122.41(l) 7)] The Copermitee shall report all instances of noncompliance not reported under Standard Provisions 5(c), 5(d), and 5(e) above, at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5(e) above.
- (i) *Other information* [40 CFR Section 122.41(l)(8)] When the Copermitee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, SWRCB, or USEPA, the Copermitee shall promptly submit such facts or information.

6. STANDARD PROVISIONS – ENFORCEMENT

- (a) The Regional Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, Sections 13385, 13386, and 13387.

7. ADDITIONAL STANDARD PROVISIONS

- (a) *Municipal separate storm sewer systems* [40 CFR 122.42(c)]. The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under 40 CFR 122.26(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:
- (1) The status of implementing the components of the storm water management program that are established as permit conditions;
 - (2) Proposed changes to the storm water management programs that are established as permit conditions. Such proposed changes shall be consistent with 40 CFR 122.26(d)(2)(iii); and
 - (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and 40 CFR

- 122.26(d)(2)(v);
- (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year;
 - (5) Annual expenditures and budget for year following each annual report;
 - (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and
 - (7) Identification of water quality improvements or degradation.
- (b) *Storm water discharges* [40 CFR 122.42(d)]. The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR 122.26(e)(7) shall require compliance with the conditions of the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit.
- (c) *Other Effluent Limitations and Standards* [40 CFR 122.44(b)(1)]. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Board may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.
- (d) *Discharge is a privilege* [CWC section 13263(g)]. No discharge of waste into the waters of the State, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the State are privileges, not rights.
- (e) *Review and revision of Order* [CWC section 13263(e)]. Upon application by any affected person, or on its own motion, the Regional Board may review and revise this permit.
- (f) *Termination or modification of Order* [CWC section 13381]. This permit may be terminated or modified for causes, including, but not limited to, all of the following:
- (1) Violation of any condition contained in this Order.
 - (2) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts.
 - (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- (g) *Transfers*. When this Order is transferred to a new owner or operator, such requirements as may be necessary under the CWC may be incorporated into this Order.
- (h) *Conditions not stayed*. The filing of a request by the Copermittee for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.

- (i) *Availability.* A copy of this Order shall be kept at a readily accessible location and shall be available to on-site personnel at all times.
- (j) *Duty to minimize or correct adverse impacts.* The Copermittees shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- (k) *Interim Effluent Limitations.* The Copermittee shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been, or may be, adopted by this Regional Board.
- (l) *Responsibilities, liabilities, legal action, penalties* [CWC sections 13385 and 13387]. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the CWA.

Nothing in this Order shall be construed to protect the Copermittee from its liabilities under federal, state, or local laws.

Except as provided for in 40CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the Copermittee from civil or criminal penalties for noncompliance.

Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Copermittee from any responsibilities, liabilities, or penalties to which the Copermittee is or may be subject to under Section 311 of the CWA.

Nothing in this Order shall be construed to preclude institution of any legal action or relieve the Copermittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the CWA.

- (m) *Noncompliance.* Any noncompliance with this Order constitutes violation of the CWA and is grounds for denial of an application or modification of the Order (also see 40 CFR 122.41(a)).
- (n) *Director.* For purposes of this Order, the term "Director" used in parts of 40 CFR incorporated into this Order by reference and/or applicable to this Order shall have the same meaning as the term "Regional Board" used elsewhere in this Order, except that in 40 CFR 122.41(h) and (l), "Director" shall mean "Regional Board, SWRCB, and USEPA."
- (o) The Regional Board has, in prior years, issued a limited number of individual NPDES permits for non-storm water discharges to MS4s. The Regional Board or SWRCB may in the future, upon prior notice to the Copermittee(s), issue an NPDES permit for any non-storm water discharge (or class of non-storm water discharges) to a MS4. Copermittees may prohibit any non-storm water discharge (or class of non-storm water discharges) to a MS4 that is authorized under such separate NPDES permits.

- (p) *Effective date.* This Order shall become effective on the date of its adoption provided the USEPA has no objection. If the USEPA objects to its issuance, this Order shall not become effective until such objection is withdrawn. This Order supersedes Order No. 2001-01 upon the effective date of this Order.
- (q) *Expiration.* This Order expires five years after adoption.
- (r) *Continuation of expired order* [23 CCR 2235.4]. After this Order expires, the terms and conditions of this Order are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits (40 CFR 122.6) are complied with.
- (s) *Applications.* Any application submitted by a Copermittee for reissuance or modification of this Order shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the CWC and the California Code of Regulations.
- (t) *Confidentiality.* Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this Order will be considered confidential, and all such information and documents shall be available for review by the public at the Regional Board office.
- (u) *Severability.* The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.
- (v) *Report submittal.* The Copermittee shall submit reports and provide notifications as required by this Order to the following:

NORTHERN WATERSHED UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 SKY PARK COURT, SUITE 100
SAN DIEGO CA 92123-4340
Telephone: (858) 467-2952 Fax: (858) 571-6972

EUGENE BROMLEY
US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
PERMITS ISSUANCE SECTION (W-5-1)
75 HAWTHORNE STREET
SAN FRANCISCO CA 94105

Unless otherwise directed, the Copermittee shall submit one hard copy for the official record and one electronic copy of each report required under this Order to the Regional Board and one electronic copy to the EPA.

ATTACHMENT C**ACRONYMS AND ABBREVIATIONS**

ADT	Average Daily Traffic
AMAL	Average Monthly Action Level
ASBS	Area of Special Biological Significance
AST	Active/Passive Sediment Treatment
BMP	Best Management Practice
Basin Plan	Water Quality Control Plan for the San Diego Basin
BU	Beneficial Use
CASQA	California Stormwater Quality Association
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWC	California Water Code
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
DAMP	Drainage Area Management Plan
DNQ	Detected, but not Quantified
EIA	Effective Impervious Area
ESAs	Environmentally Sensitive Areas
GIS	Geographic Information System
HMP	Hydromodification Management Plan
IBI	Index of Biotic Integrity
JRMP	Jurisdictional Runoff Management Plan
LID	Low Impact Development
MDAL	Maximum Daily Action Level
MEP	Maximum Extent Practicable
ML	Minimum Level
MS4	Municipal Separate Storm Sewer System
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
Copermittees	County of Riverside, the 4 incorporated cities within the County of Riverside in the San Diego Region, and the Riverside County Flood Control District
RGOs	Retail Gasoline Outlets
ROWD	Riverside County Copermittees' Report of Waste Discharge (application for NPDES reissuance)
RWLs	Receiving Water Limitations
SAL	Storm Water Action Level
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
SIC	Standard Industrial Classification Code
SSMP	Standard Urban Storm Water Mitigation Plan
State Board	State Water Resources Control Board
SWQPA	State Water Quality Protected Area
TMDL	Total Maximum Daily Load

USEPA	United States Environmental Protection Agency
WLA	Waste Load Allocation
WQMP	Water Quality Management Plan
WRMP	Watershed Runoff Management Plan

DEFINITIONS

Active/Passive Sediment Treatment - Using mechanical, electrical or chemical means to flocculate or coagulate suspended sediment for removal from runoff from construction sites prior to discharge.

Anthropogenic Litter – Trash generated from human activities, not including sediment.

Average Monthly Action Level – the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Basin Plan – Water Quality Control Plan, San Diego Basin, Region 9, and amendments, developed by the Regional Board.

Beneficial Uses - The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote tangible and intangible economic, social, and environmental goals. "Beneficial Uses" of the waters of the State that may be protected include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Best Management Practices (BMPs) - Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.

Bioassessment - The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bioassessment is the collection and analysis of samples of the benthic macroinvertebrate community together with physical/habitat quality measurements associated with the sampling site and the watershed to evaluate the biological condition (i.e. biological integrity) of a water body.

Biocriteria - Under the CWA, numerical values or narrative expressions that define a desired biological condition for a water body that are legally enforceable. The USEPA

defines biocriteria as: “numerical values or narrative expressions that describe the reference biological integrity of aquatic communities inhabiting waters of a given designated aquatic life use... (that)... describe the characteristics of water body segments least impaired by human activities.”

Biofiltration - refers to practices that use vegetation and amended soils to detain and treat runoff from impervious areas. Treatment is through filtration, infiltration, adsorption, ion exchange, and biological uptake of pollutants.

Biological Integrity - Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: “A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region.” Also referred to as ecosystem health.

Clean Water Act Section 402(p) [33 USC 1342(p)] - The federal statute requiring municipal and industrial dischargers to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d) Water Body - An impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Construction Site – Any project, including projects requiring coverage under the General Construction Permit, that involves soil disturbing activities including, but not limited to, clearing, grading, disturbances to ground such as stockpiling, and excavation.

Contamination - As defined in the Porter-Cologne Water Quality Control Act, contamination is “an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. ‘Contamination’ includes any equivalent effect resulting from the disposal of waste whether or not waters of the State are affected.”

Critical Channel Flow (Qc) – The channel flow that produces the critical shear stress that initiates bed movement or that erodes the toe of channel banks. When measuring Qc, it should be based on the weakest boundary material – either bed or bank.

CWA – Federal Clean Water Act

CWC – California Water Code

Daily Discharge – Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day or any 24 hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g. concentration.)

The Daily Discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day, or other 24 hour period other than a day), or by the arithmetic mean of analytical results from one or more grab samples taken over the course of a day.

Detected, but not Quantified – those sample results less than the reporting level, but greater than or equal to the laboratory's Method of Detection Limit (MDL.)

Development Projects - Construction, rehabilitation, redevelopment, or reconstruction of any public or private residential project, industrial, commercial, or any other projects.

Dilution Credit – the amount of dilution granted to a discharger in the calculation of a WQBEL, based on the allowance of a specific mixing zone. It is calculated from the dilution ratio, or determined through conducting of a mixing zone study, or modeling of the discharge and receiving water.

Dry Season – May 1 through September 30 of each year.

Dry Weather – weather is considered dry if the preceding 72 hours has been without precipitation.

Effectiveness Assessment Outcome Level 1 - Compliance with Activity-based Permit Requirements – Level 1 outcomes are those directly related to the implementation of specific activities prescribed by this Order or established pursuant to it.

Effectiveness Assessment Outcome Level 2 - Changes in Attitudes, Knowledge, and Awareness – Level 2 outcomes are measured as increases in knowledge and awareness among target audiences such as residents, businesses, and municipal employees.

Effectiveness Assessment Outcome Level 3 - Behavioral Change and BMP Implementation – Level 3 outcomes measure the effectiveness of activities in affecting behavioral change and BMP implementation.

Effectiveness Assessment Outcome Level 4 - Load Reductions – Level 4 outcomes measure load reductions which quantify changes in the amounts of pollutants associated with specific sources before and after a BMP or other control measure is employed.

Effectiveness Assessment Outcome Level 5 - Changes in Runoff and Discharge Quality – Level 5 outcomes are measured as changes in one or more specific constituents or stressors in discharges into or from MS4s.

Effectiveness Assessment Outcome Level 6 - Changes in Receiving Water Quality – Level 6 outcomes measure changes to receiving water quality resulting from discharges into and from MS4s, and may be expressed through a variety of means such as compliance with water quality objectives or other regulatory benchmarks, protection of biological integrity, or beneficial use attainment.

Enclosed Bays – Enclosed bays are indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all

bays where the narrowest distance between the headlands or outermost bay works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays do not include inland surface waters or ocean waters.

Erosion – When land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

Environmentally Sensitive Areas (ESAs) - Areas that include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); State Water Quality Protected Areas; water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); areas designated as preserves or their equivalent under the Natural Communities Conservation Program within the Cities and County of Orange; and any other equivalent environmentally sensitive areas which have been identified by the Copermittees.

Estuaries – waters, including coastal lagoons, located at the mouth of streams that serve as areas of mixing fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and ocean water. Estuaries do not include inland surface waters or ocean waters.

Feasibility Analysis – Detailed description of the selection process for the treatment control BMPs for a Priority Development Project, including justification of why one BMP is selected over another. For a Priority Development Project where a treatment control BMP with a low removal efficiency ranking (as identified by the Model SUSMP) is proposed, the analysis shall include a detailed and adequate justification exhibiting the reasons implementation of a treatment control BMP with a higher removal efficiency is infeasible for the Priority Development Project or portion of the Priority Development Project.

Flow Duration – The long-term period of time that flows occur above a threshold that causes significant sediment transport and may cause excessive erosion damage to creeks and streams (not a single storm event duration). The simplest way to visualize this is to consider a histogram of pre- and post-project flows using long-term records of hourly data. To maintain pre-project flow duration means that the total number of hours (counts) within each range of flows in a flow-duration histogram cannot increase between the pre- and post-project condition. Flow duration within the range of geomorphologically significant flows is important for managing erosion.

GIS – Geographic Information System

Grading - The cutting and/or filling of the land surface to a desired slope or elevation.

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical

reactivity. These also include materials named by the USEPA in 40 CFR 116 to be reported if a designated quantity of the material is spilled into the waters of the U.S. or emitted into the environment.

Hazardous Waste - Hazardous waste is defined as "any waste which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code" [CCR Title 22, Division 4.5, Chapter 11, Article 1].

Household Hazardous Waste – Paints, cleaning products, and other wastes generated during home improvement or maintenance activities.

Hydromodification – The change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport. In addition, alteration of stream and river channels, such as stream channelization, concrete lining, installation of dams and water impoundments, and excessive streambank and shoreline erosion are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

Illicit Connection – Any connection to the MS4 that conveys an illicit discharge.

Illicit Discharge - Any discharge to the MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities [40 CFR 122.26(b)(2)].

Implementation Assessment – Assessment conducted to determine the effectiveness of Copermittee programs and activities in achieving measurable targeted outcomes, and in determining whether priority sources of water quality problems are being effectively addressed.

Inactive Slopes – Slopes on which no grading or other soil disturbing activities are conducted for 10 or more days.

Inland Surface Waters – all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Integrated Assessment – Assessment to be conducted to evaluate whether program implementation is properly targeted to and resulting in the protection and improvement of water quality.

Jurisdictional Runoff Management Plan (JRMP) – A written description of the specific jurisdictional runoff management measures and programs that each Copermittee will implement to comply with this Order and ensure that storm water pollutant discharges in runoff are reduced to the MEP and do not cause or contribute to a violation of water quality standards.

Low Impact Development (LID) – A storm water management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions.

Low Impact Development Best Management Practices (LID BMPs) – LID BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States through storm water management and land development strategies that emphasize conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions. LID BMPs include retention practices that do not allow runoff, such as infiltration, rain water harvesting and reuse, and evapotranspiration. LID BMPs also include flow-through practices such as biofiltration that may have some discharge of storm water following pollutant reduction.

Maximum Daily Action Level (MDAL) – is the highest allowable daily discharge of a pollutant, over a calendar day (or 24 hour period). For pollutants with action levels expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with action levels expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Maximum Extent Practicable (MEP) – The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) for storm water that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their runoff management programs. Their total collective and individual activities conducted pursuant to the runoff management programs becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance). In the absence of a proposal acceptable to the Regional Board, the Regional Board defines MEP.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

"To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

- a. *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*

- b. *Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
- c. *Public Acceptance: Does the BMP have public support?*
- d. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
- e. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.”

Minimum Level – the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method sample weights, volumes and processing steps have been followed.

Monitoring Year – the monitoring year includes a full wet season and dry season, beginning annually on October 1st and ending on September 30th.

Municipal Separate Storm Sewer System (MS4) – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

National Pollutant Discharge Elimination System (NPDES) - The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA.

NOI – Notice of Intent

Non-Storm Water - All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges from a MS4 other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges.

Nuisance - As defined in the Porter-Cologne Water Quality Control Act a nuisance is “anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes.”

Ocean Waters – the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Board’s California Ocean Plan.

Order – Order No. R9-2009-0002 (NPDES No. CAS0108740)

Person - A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof [40 CFR 122.2].

Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant - Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution - As defined in the Porter-Cologne Water Quality Control Act: “the alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects the either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses.” Pollution may include contamination.

Pollutants of Concern – Pollutants for which water bodies are listed as impaired under CWA section 303(d), pollutants associated with the land use type of a development, and/or pollutants commonly associated with runoff. Pollutants commonly associated with runoff include total suspended solids; sediment; pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc, and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides,

and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers); oxygen-demanding substances (decaying vegetation, animal waste, and anthropogenic litter).

Pollution Prevention - Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control BMPs, treatment control BMPs, or disposal.

Post-Construction BMPs - A subset of BMPs including structural and non-structural controls which detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the final functional life of developments.

Pre-Project or Pre-Development Runoff Conditions (Discharge Rates, Durations, Etc.) – Runoff conditions that exist onsite immediately before the planned development activities occur. This definition is not intended to be interpreted as that period before any human-induced land activities occurred. This definition pertains to redevelopment as well as initial development.

Principal Copermittee – County of Orange

Priority Development Projects - New development and redevelopment project categories listed in Section F.1.d(2) of Order No. R9-2009-0002.

Rainy Season – (aka Wet Season) is the period of time from October 1 forward to April 30 when the San Diego region experiences the most rainfall.

Receiving Waters – Waters of the United States.

Receiving Water Limitations (RWLs) - Waste discharge requirements issued by the Regional Board typically include both: (1) "Effluent Limitations" (or "Discharge Limitations") that specify the technology-based or water-quality-based effluent limitations; and (2) "Receiving Water Limitations" that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the "Receiving Water Limitations" provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Redevelopment - The creation, addition, and or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Redevelopment does not include trenching and resurfacing associated with utility work; resurfacing existing roadways; new sidewalk construction, pedestrian ramps, or bikelane on existing roads; and routine replacement of damaged pavement, such as pothole repair.

Retain – to keep or hold in a particular place, condition, or position without discharge to surface waters.

Runoff - All flows in a storm water conveyance system that consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water including dry weather flows.

San Diego Water Board – As used in this document the term "San Diego Water Board" is synonymous with the term "Regional Board" as defined in Water Code section 13050(b) and is intended to refer to the California Regional Water Quality Control Board for the San Diego Region as specified in Water Code Section 13200.

Sediment - Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Shared Treatment Control BMP - BMPs used by multiple developments to infiltrate, filter, or treat the required volume or flow prior to discharge to a receiving water. This could include, for example, a treatment BMP at the end of an enclosed storm drain that collects runoff from several commercial developments.

Source Control BMP – Land use or site planning practices, or structural or nonstructural measures that aim to prevent runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and runoff.

State Water Quality Protection Area – A nonterrestrial marine or estuarine area designated to protect marine species or biological communities from an undesirable alteration in natural water quality, including, but not limited to, areas of special biological significance that have been designated by the State Water Resources Control Board through its water quality control planning process. Areas of special biological significance are a subset of State Water Quality Protection Areas, and require special protection as determined by the State Water Resources Control Board pursuant to the California Ocean Plan adopted and reviewed pursuant to Article 4 (commencing with Section 13160) of Chapter 3 of Division 7 of the California Water Code and pursuant to the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (California Thermal Plan) adopted by the state board.

Storm Water – Per 40 CFR 122.26(b)(13), means storm water runoff, snowmelt runoff and surface runoff and drainage. Surface runoff and drainage pertains to runoff and drainage resulting from precipitation events.

Standard Storm Water Mitigation Plan (SSMP) – A plan developed to mitigate the impacts of runoff from Priority Development Projects.

Third Party Inspectors - Industrial and commercial facility inspectors who are not contracted or employed by a regulatory agency or group of regulatory agencies, such as the Regional Board or Copermittees. The third party inspector is not a regular facility employee self-inspecting their own facility. The third party inspector could be a contractor or consultant employed by a facility or group of businesses to conduct inspections.

Total Maximum Daily Load (TMDL) - The maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Toxicity - Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part...“All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life....The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge”.

Treatment Control BMP – Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

Unpaved Road – is a long, narrow stretch without pavement used for traveling by motor passenger vehicle between two or more points. Unpaved roads are generally constructed of dirt, gravel, aggregate or macadam and may be improved or unimproved.

Waste - As defined in CWC Section 13050(d), “waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.”

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system that applies to solid and semi-solid waste, which cannot be discharged directly or indirectly to water of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, non-hazardous solid waste, and inert waste.

Water Quality Assessment – Assessment conducted to evaluate the condition of non-storm water and storm water discharges, and the water bodies which receive these discharges.

Water Quality Objective - Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [California Water Code Section 13050 (h)]. California’s water quality objectives are established by the State and Regional Water Boards in the Water Quality Control Plans. Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the

beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne's definition of pollution. A condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the CWA.)

Water Quality Standards - The beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.) of water and the water quality objectives necessary to protect those uses.

Waters of the State - Any water, surface or underground, including saline waters within the boundaries of the State [CWC section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a MS4 is always considered to be a Waters of the State.

Waters of the United States - As defined in the 40 CFR 122.2, the Waters of the U.S. are defined as: "(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (b) All interstate waters, including interstate "wetlands;" (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition; (e) Tributaries of waters identified in paragraphs (a) through (d) of this definition; (f) The territorial seas; and (g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA."

Watershed - That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

Watershed Runoff Management Plan (WRMP) – A written description of the specific watershed runoff management measures and programs that each watershed group of Copermittees will implement to comply with this Order and ensure that storm water pollutant discharges in runoff are reduced to the MEP and do not cause or contribute to a violation of water quality standards.

WDRs – Waste Discharge Requirements

ATTACHMENT D

SCHEDULED SUBMITTALS SUMMARY AND REPORTING CHECKLIST

Submittal	Permit Section	Completion Date	Frequency
Prohibitions on dry-weather discharges not listed in Section B.2	B.2	July 1, 2012, then in JRMP Annual Report	Annual
Submit Certified Statement of Adequate Legal Authority	E.2	June 30, 2012	One time
Updated SSMP	F.1.d, K.2.a	June 30, 2012	One time
Identify and remove barriers to LID implementation	F.1.d.(4)(a)(v)	With JRMP Annual Report	Annual
Hydromodification Management Plan	F.1.h.(5), K.2.b	June 30, 2013	One Time for Draft
Flood Control Structure BMP Inventory and Evaluation	F.3.a.(4)	With JRMP Annual Report	Annual
Retrofitting Program	F.3.d.(3)	With JRMP Annual Report	Annual
Updated Watershed Workplans	G.1 K.1.b	June 30, 2012	One time
Fiscal Analysis	H.3	With JRMP Annual Report	Annual
Updated Jurisdictional Runoff Management Plans	K.1.a	June 30, 2012	One time
Report of Waste Discharge	K.2.c	At least 180 days prior to expiration of this Order	One time
Principal Copermittee submits JRMP Annual Reports to Regional Board	K.3.a.(2)	October 31, 2013 and annually thereafter	Annual
Principal Copermittee submits Notification of Principal Copermittee	M	180 days after adoption of the Order	One Time

Jurisdictional Runoff Management Program Annual Report Checklist

In the JRMP Annual Report each Copermitee shall provide an Annual Report Checklist. The Annual Report Checklist must be no longer than 2 pages, be current as of the 1st day of the rainy season of that year, and include a signed certification statement. The Annual Report Summary Checklist must provide the following information:

Order Requirements

Were All Requirements of this Order Met?

Construction

Number of Active Sites
Number of Inactive Sites
Number of Sites Inspected
Number of Inspections
Number of Violations
Number of Construction Enforcement Actions Taken

New Development

Number of Development Plan Reviews
Number of Grading Permits Issued
Number of Projects Exempted from Interim/Final Hydromodification Requirements

Post Construction Development

Number of Priority Development Projects
Number of SUSMP Required Post-Construction BMP Inspections
Number of SUSMP Required Post-Construction BMP Violations
Number of SUSMP Required Post-Construction BMP Enforcement Actions Taken

Illicit Discharges and Connections

Number of IC/ID Inspections
Number of IC/ID Detections by Staff
Number of IC/ID Detections from the Public
Number of IC/ID Eliminations
Number of IC/ID Violations
Number of IC/ID Enforcement Actions Taken

MS4 Maintenance

Number of Inspections Conducted
Amount of Waste Removed
Total Miles of MS4 Inspected

Municipal/Commercial/Industrial

Number of Facilities
Number of Inspections Conducted
Number of Facilities Inspected
Number of Violations
Number of Enforcement Actions Taken

Attachment E

**RECEIVING WATERS AND MS4 DISCHARGE MONITORING AND REPORTING
PROGRAM NO. R9-2010-0016**

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I. PURPOSE

- A. This Receiving Waters and MS4 Discharge Monitoring and Reporting Program (MRP) is intended to meet the following goals:
1. Assess compliance with Order No. R9-2010-0016;
 2. Measure and improve the effectiveness of the Copermittees' runoff management programs;
 3. Assess the chemical, physical, and biological impacts to receiving waters resulting from MS4 discharges;
 4. Characterize storm water discharges;
 5. Identify sources of specific pollutants;
 6. Prioritize drainage and sub-drainage areas that need management actions;
 7. Detect and eliminate illicit discharges and illicit connections to the MS4;
 8. Assess the overall health of receiving waters; and
 9. Provide information to implement required BMP improvements.
- B. This Receiving Waters and MS4 Discharges Monitoring and Reporting Program is designed to answer the following core management questions¹:
1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
 2. What is the extent and magnitude of the current or potential receiving water problems?
 3. What is the relative MS4 discharge contribution to the receiving water problem(s)?
 4. What are the sources of MS4 discharge that contribute to receiving water problem(s)?
 5. Are conditions in receiving waters getting better or worse?

II. MONITORING PROGRAM

The Monitoring Program is designed to assess the condition of receiving waters, monitor pollutants in storm and non-storm water effluent from the MS4, and conduct Special Studies to address conditions of concern. Where feasible, the Monitoring Program is designed to allow the Copermittees to combine required monitoring elements or efforts that are not mutually exclusive while still meeting the requirements of the Order.

¹ Core management questions from "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California: A report from the Stormwater Monitoring Coalition's Model Monitoring Technical Committee." Technical Report No. 419. August 2004.

A. Receiving Waters Monitoring Program

Each Copermitttee must collaborate with the other Copermitttees to develop, conduct, and report on a year-round watershed based Receiving Waters Monitoring Program. The monitoring program design, implementation, analysis, assessment, and reporting must be conducted on a watershed basis for the Santa Margarita Hydrologic Unit (HU) and must be designed to meet the goals and answer the questions listed in section I above. The monitoring program must include the following components:

1. MASS LOADING STATION (MLS) MONITORING

- a. Locations: The following existing mass loading stations must continue to be monitored: Lower Temecula Creek, Lower Murrieta Creek at the USGS Weir, and a permanent reference station.² Copermitttees may propose, for San Diego Water Board review and approval, changing the location of a mass loading station.
- b. Frequency: Each mass loading station must be monitored each year three times during wet weather events and twice during dry weather flow conditions.
- c. Timing: Each mass loading station must be monitored for the first wet weather event of the season which meets USEPA's criteria described in 40 CFR 122.21(g)(7). Monitoring of the third wet weather event must be conducted after February 1. Dry weather mass loading monitoring events must be sampled at least three months apart between May and October. If flows are not evident for the second event, then sampling must be conducted during non-rain events in the following wet weather season.
- d. Protocols: Protocols for mass loading sampling and analysis including analytical methods, target reporting limits, and data reporting formats must be compatible with the State Water Resources Control Board's (State Water Board's) State Surface Water Ambient Monitoring Program (SWAMP). If the mass loading sampling and analysis are determined to be impracticable with the SWAMP standards, the Copermitttees must provide a written explanation and discussion in the submittal of the Planned Monitoring Program. Wet weather samples must be flow-weighted composites, collected for the duration of the entire runoff event. Where such monitoring is not practical, such as for large watersheds with significant groundwater recharge flows, composites must be collected at a minimum during the first 3 hours of

² A map depicting mass loading stations can be found in the Fact Sheet for Order R9-2010-0016.

flow. Dry weather event sampling must be time-weighted composites composed of 24 discrete hourly samples, whereby the mass loads of pollutants are calculated as the product of the composite sample concentration and the total volume of water discharged past the monitoring point during the time of sample collection.

(1) Automatic samplers must be used to collect samples from mass loading stations.

(2) Grab samples must be analyzed for temperature, pH, specific conductance, biochemical oxygen demand, oil and grease, E. coli, fecal coliform, enterococcus and for total petroleum hydrocarbons whenever a sheen is observed.

- e. Copermittees must measure or estimate flow rates and volumes for each mass loading station sampling event to determine mass loadings of pollutants. Data from nearby USGS gauging stations may be utilized, or flow rates may be estimated in accordance with the USEPA Storm Water Sampling Guidance Document (EPA-833-B-92-001), Section 3.2.1.
- f. In the event that the required number of sampling events are not conducted during one monitoring year at any given station, the Copermittees must provide a written explanation for the reduced number of sampling events in the subsequent Receiving Waters Monitoring Annual Report. The explanation must include, at a minimum, streamflow data from the nearest USGS gauging station, a full description of any equipment failures and subsequent remedies if applicable, efforts made to resample a future event, and any quality assurance or quality control issues encountered. The explanation must also include a description of steps taken to prevent further sampling failures.
- g. The following constituents must be analyzed for each monitoring event at each station:

Table 1. Analytical Testing for Mass Loading (II.A.1) and Stream Assessment (II.A.2)

Conventionals, Nutrients, Hydrocarbons	Pesticides	Metals (Total and Dissolved)	Bacteriological (mass loading)
<ul style="list-style-type: none"> • Total Dissolved Solids • Total Suspended Solids • Turbidity • Total Hardness • pH • Specific Conductance • Temperature • Dissolved Oxygen • Total Phosphorus • Dissolved Phosphorus • Nitrite* • Nitrate* • Total Kjeldahl Nitrogen • Ammonia • Biological Oxygen Demand, 5-day • Chemical Oxygen Demand • Total Organic Carbon • Dissolved Organic Carbon • Methylene Blue Active Substances • Oil and Grease • Sulfate 	<ul style="list-style-type: none"> • Diazinon • Chlorpyrifos • Malathion • Carbamates • Pyrethroids 	<ul style="list-style-type: none"> • Arsenic • Cadmium • Total Chromium • Hexavalent Chromium** • Copper • Lead • Iron • Manganese • Nickel • Selenium • Zinc • Mercury • Silver • Thallium 	<ul style="list-style-type: none"> • E. coli • Fecal Coliform • Enterococcus

* Nitrate and nitrite may be combined and reported as nitrate + nitrite.

** Hexavalent Chromium sampling must occur only for mass loading stations for the 1st wet weather event and 1 dry weather event.

- h. Toxicity testing must be conducted for each monitoring event at each station according to the following Table 2:

Table 2. Toxicity Testing for Mass Loading (II.A.1) and Stream Assessment (II.A.2)

Program Component	Dry Weather Flows	Storm Water Flows
	Freshwater Organisms	Freshwater Organisms
Mass Loading	3 chronic* 3 acute*	3 acute*
Stream Assessment**	3 chronic* 3 acute*	n/a
Sediment Toxicity Special Study	1 chronic 1 acute	n/a
<p>Table Notes</p> <p>* Toxicity testing must include use of <i>Pimephales promelas</i> (fathead minnow), <i>Hyalella azteca</i> and <i>Pseudokirchneriella subcapitata</i> (formerly <i>Selenastrum capricornutum</i>, unicellular algae).</p> <p>** Duplicative toxicity testing is not required for Stream Assessment Monitoring stations co-located at mass loading stations since Stream Assessment Monitoring must be conducted in conjunction with dry weather mass loading.</p> <p>Species Notes:</p> <p>1. Acute toxicity may be determined during the course of chronic toxicity monitoring per U.S. EPA protocols.</p>		

- i. The presence of acute toxicity must be determined in accordance with USEPA protocol (EPA-821-R-02-012). The presence of chronic freshwater toxicity must be determined in accordance with USEPA protocol (EPA-821-R-02-013).

2. Stream Assessment Monitoring

Copermittees must conduct Stream Assessment Monitoring using multiple lines of evidence to assess the condition of biological communities in freshwater receiving waters. Stream assessment must include the collection and reporting of the following specified instream biological, chemical, and physical (including habitat) data.

- a. Locations: At a minimum, the program must consist of station identification, sampling, monitoring, and analysis of data for six stream assessment stations in order to determine the biological, chemical and physical integrity of streams within the County of Riverside. The two existing mass loading stations at Murrieta and Temecula Creeks must continue to be monitored. Copermittees may propose, for San Diego Water Board review and approval, changing the location of stream assessment monitoring stations where the mass loading stations

location has changed pursuant to section II.A.1.a. Two reference stream assessment stations, including the existing Adobe Creek station, must be identified, sampled, monitored, and analyzed. Locations of reference stations must be identified according to protocols outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.³

- b. Frequency: Stream assessment stations must be monitored in May or June (to represent the influence of wet weather on the communities). The timing of monitoring of stream assessment stations located at mass loading stations must coincide with dry weather monitoring of those mass loading stations.
- c. Parameters / Methods: Stream assessment monitoring must include bioassessment, aquatic chemistry, and aqueous toxicity.
 - (1) Aquatic chemistry and aqueous toxicity must be conducted as outlined in Tables 1 and 2 using the same parameters and methods as the mass loading station monitoring.
 - (2) Bioassessment analysis procedures must include calculation of the Index of Biotic Integrity (IBI) for benthic macroinvertebrates for all bioassessment stations, as outlined in "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams," by Ode, et al. 2005.
 - (3) Monitoring of stream assessment stations must be conducted according to the most current bioassessment Standard Operating Procedures (SOP) developed by the Surface Water Ambient Monitoring Program (SWAMP), and amendments, as applicable.⁴ In collecting macroinvertebrate samples, the discharger must use the "Reachwide Benthos (Multihabitat) Procedure." The discharger must conduct, concurrently with all required macroinvertebrate collections, the "full" suite of physical/habitat characterization measurements specified in the SWAMP Bioassessment SOP, and as summarized in the *SWAMP Stream Habitat Characterization Form — Full Version*.⁵

³ Ode, et al. 2005. "A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams." Environmental Management. Vol. 35, No. 1, pp. 1-13.

⁴ Ode, P.R.. 2007. Standard operating procedures for collecting macroinvertebrate samples and associated physical and chemical data for ambient bioassessments in California. California State Water Resources Control Board Surface Water Ambient Monitoring Program (SWAMP) Bioassessment SOP 001.

http://www.swrcb.ca.gov/water_issues/programs/swamp/tools.shtml#monitoring

⁵ Available at:

http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/fieldforms_fullversion052908.pdf

- (4) Monitoring of stream assessment stations must incorporate assessment of algae using SWAMP's SOP for Collecting Stream Algae Samples.⁶ Assessment of freshwater algae must include algal taxonomic composition (diatoms and soft algae) and algal biomass. Future bioassessment must incorporate algal IBI scores, when developed.
- d. A qualified professional environmental laboratory must perform all sampling, laboratory, quality assurance, and analytical procedures in accordance with the Southern California Regional Watershed Monitoring Program Bioassessment Quality Assurance Project Plan.⁷ The Copermittees must utilize future Quality Assurance Project Plans as developed by SWAMP.
- (1) The Copermittees must have and follow a quality assurance (QA) plan that covers the required stream assessment monitoring. External QA checks must be funded by the Copermittees, and performed by the California Department of Fish and Game's Aquatic Bioassessment Laboratory. An alternate laboratory with equivalent expertise and performance may be used if approved in advance in writing by San Diego Water Board.
 - (2) Identified organisms must be archived (i.e., retained) by the Copermittee(s) for a period of not less than three years from the date that all QA steps are completed. The identified organisms must be relinquished to the San Diego Water Board upon request by the San Diego Water Board.
 - (3) The macroinvertebrate results (i.e., taxonomic identifications consistent with the specified SAFIT STEs, and number of organisms within each taxa) must be submitted to the San Diego Water Board in electronic format. SWAMP is currently developing standardized formats for reporting bioassessment data. All bioassessment data collected after those formats become available must be submitted using the SWAMP formats. Until those formats are available, the biological data must be submitted in MS-Excel⁸ (or equivalent) format.

⁶ Fetscher et al. 2009. Standard Operating Procedures for Collecting Stream Algae Samples and Associated Physical Habitat and Chemical Data for Ambient Bioassessments in California.

⁷ Version 1.0 of the Southern California Regional Watershed Monitoring Program Bioassessment Quality Assurance Program Plan was released on June 25, 2009.

⁸ Any version of Excel, 2000 or later, may be used.

The physical/habitat data must be reported using the standard format titled *SWAMP Stream Habitat Characterization Form — Full Version*.

3. FOLLOW-UP ANALYSIS AND ACTIONS (TIE AND TRE TRIAD APPROACH)

When results from the required monitoring indicate adverse water quality effects at a mass loading station or stream assessment station as defined in Table 3, Copermittees within the watershed(s) that discharge to that location must evaluate the extent and causes of MS4 discharge pollution to the adverse effects in receiving waters and prioritize and implement management actions to eliminate non-storm water discharges and/or reduce storm water sources from the MS4 as described in Table 3. Toxicity Identification Evaluations (TIEs) must be conducted to determine the cause of toxicity as outlined in Table 3 below. Other follow-up activities, which must be conducted by the Copermittees, are also identified in Table 3. Once the cause of toxicity has been identified by a TIE, the Copermittees must perform source identification projects as needed and implement the measures necessary to reduce or eliminate the pollutant discharges and abate the sources causing the toxicity.

Table 3. Triad Approach to Determining Follow-Up Actions⁹

Chemistry	Toxicity	Benthic Alteration	Example Conclusions	Possible Actions or Decisions
1. Exceedance of water quality objectives	Evidence of toxicity	Indications of alteration	Strong evidence of pollution-induced degradation	Use TIE to identify contaminants of concern, based on TIE metric Initiate upstream source identification as a high priority
2. No persistent exceedances of water quality objectives	No evidence of toxicity	No indications of alteration	No evidence of current pollution induced degradation Potentially harmful pollutants not yet concentrated enough to cause visible impact	No immediate action necessary Conduct periodic broad scans for new and/or potentially harmful pollutants
3. Exceedance of water quality objectives	No evidence of toxicity	No indications of alteration	Contaminants are not bioavailable Test organisms not sensitive to problem pollutants	TIE would not provide useful information with no evidence of toxicity Continue monitoring for toxic and benthic impacts Initiate upstream source identification as a low priority Consider whether different or additional test organisms should be evaluated
4. No persistent exceedances of water quality objectives	Evidence of toxicity	No indications of alteration	Unmeasured contaminant(s) or conditions have the potential to cause degradation Pollutant causing toxicity at very low levels	Recheck chemical analyses; verify toxicity test results Consider additional advanced chemical analyses Use TIE to identify contaminants of concern, based on TIE metric Initiate upstream source identification as a medium priority
5. No persistent exceedances of water quality objectives	No evidence of toxicity	Indications of alteration	Alteration may not be due to toxic contamination Test organisms not sensitive to problem pollutants	No action necessary due to toxic chemicals Initiate upstream source identification (for physical sources) as a high priority Consider whether different or additional test organisms should be evaluated
6. Exceedance of water quality objectives	Evidence of toxicity	No indications of alteration	Toxic contaminants are bioavailable, but in situ effects are not demonstrable Benthic analysis not sensitive enough to detect impact Potentially harmful pollutants not yet concentrated enough to change community	Determine if chemical and toxicity tests indicate persistent degradation Recheck benthic analyses; consider additional data analyses If recheck indicates benthic alteration, perform TIE to identify contaminants of concern, based on TIE metric Initiate upstream source identification as a high priority If recheck shows no effect, use TIE to identify contaminants of concern, based on TIE metric Initiate upstream source identification as a medium priority
7. No persistent exceedances of water quality objectives	Evidence of toxicity	Indications of alteration	Unmeasured toxic contaminants are causing degradation Pollutant causing toxicity at very low levels Benthic impact due to habitat disturbance, not toxicity	Recheck chemical analyses and consider additional advanced analyses Use TIE to identify contaminants of concern, based on TIE metric Initiate upstream source identification as a high priority Consider potential role of physical habitat disturbance
8. Exceedance of water quality objectives	No evidence of toxicity	Indications of alteration	Test organisms not sensitive to problem pollutants Benthic impact due to habitat disturbance, not toxicity	TIE would not provide useful information with no evidence of toxicity Initiate upstream source identification as a high priority Consider whether different or additional test organisms should be evaluated Consider potential role of physical habitat disturbance

4. REGIONAL MONITORING PROGRAMS

The San Diego Water Board recognizes the importance and advantages of participation by Copermittees in Regional Monitoring Programs. As such, the Copermittees may propose participation in additional regional monitoring programs to supplement and/or replace monitoring required under this Order. The regional monitoring plan must be submitted to the San Diego Water Board¹⁰ for review and approval. Documentation of participation and monitoring must be included in the annual report(s).

⁹ Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California. Stormwater Monitoring Coalition August 2004. See Table 5-4 for definitions.

¹⁰ For the purposes of Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016, review and approval by the San Diego Water Board of draft monitoring plans, proposals or protocols shall be conducted by the San Diego Water Board Executive Officer.

B. Wet Weather MS4 Discharge Monitoring

Each Copermitttee must collaborate with the other Copermitttees to develop, conduct, and report on a year-round, watershed-based, Wet Weather MS4 Discharge Monitoring Program. The monitoring program design, implementation, analysis, assessment, and reporting must be conducted on a watershed basis for each of the hydrologic subareas within the Santa Margarita HU under jurisdiction of the Copermitttees. The monitoring program must be designed to meet the goals, and answer the questions, listed in Section I above, as well as to implement required Storm Water Action Levels (SALs) in the Order. The monitoring program must include the following components;

1. MS4 OUTFALL MONITORING

The Copermitttees must collaborate to develop and implement a monitoring program to characterize pollutant discharges from MS4 outfalls in each watershed during wet weather. The program must include the rationale and criteria for selection of outfalls to be monitored. The program must, at a minimum, include collection of samples for pollutants listed in Table 4 (below). This monitoring program must be designed to sample a representative percentage¹¹ of the major outfalls within each hydrologic subarea and must begin no later than the 2012-2013 monitoring year.

- a. The program must comply with Section D of this Order for Storm Water Action Levels (SALs). Samples must be collected during the first 24 hours of the storm water discharge or for the entire storm water discharge if it is less than 24 hours.
 - (1) Grab samples may be utilized only for pH, indicator bacteria, DO, temperature and hardness.
 - (2) All other constituents must be sampled using 24-hour composite samples or for the entire storm water discharge if the storm event is less than 24 hours.
- b. Sampling to compare MS4 outfall discharges with total metal SALs must include a measurement of receiving water hardness at each outfall. If a total metal concentration exceeds a SAL in Section D of

¹¹ A representative percentage determination must consider hydrologic conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, and land use types (commercial, residential and industrial).

the Order, that concentration must be compared to the California Toxic Rule criteria and the USEPA 1-hour maximum concentration for the detected level of receiving water hardness associated with that sample. If it is determined that the sample's total metal concentration for that specific pollutant exceeds the SAL but does not exceed the applicable 1-hour criteria for the measured level of hardness, then the SAL shall be considered not exceeded for that measurement.

Table 4. Analytical Testing for Wet Weather MS4 Discharges

Conventionals, Nutrients, Hydrocarbons	Pesticides	Metals (Total and Dissolved)	Bacteriological
<ul style="list-style-type: none"> • Total Dissolved Solids • Total Suspended Solids • Turbidity* • Total Hardness • pH • Specific Conductance • Temperature • Dissolved Oxygen • Total Phosphorus* • Dissolved Phosphorus • Nitrite * • Nitrate * • Total Kjeldahl Nitrogen • Ammonia • Biological Oxygen Demand, 5-day • Chemical Oxygen Demand • Total Organic Carbon • Dissolved Organic Carbon • Oil and Grease • Sulfate 	<ul style="list-style-type: none"> • Diazinon • Chlorpyrifos • Pyrethroids 	<ul style="list-style-type: none"> • Arsenic • Cadmium* • Chromium • Copper* • Lead* • Nickel • Selenium • Zinc* • Mercury • Silver • Thallium • Iron • Manganese 	<ul style="list-style-type: none"> • Fecal Coliform • Enterococcus • E. coli
<p>* Nitrate and nitrite may be combined and reported as nitrate + nitrite. ★Pollutant for which there is a Storm Water Action Level</p>			

2. SOURCE IDENTIFICATION MONITORING

The Copermittees must collaborate to develop and implement a monitoring program to identify sources of pollutants causing the priority water quality problems within each hydrologic subarea. The monitoring program must include focused monitoring which moves upstream into each watershed as necessary to identify sources. This monitoring program must be implemented within each hydrologic subarea and must begin no later than the 2012-2013 monitoring year.

3. COMMENCEMENT OF MS4 OUTFALL AND SOURCE IDENTIFICATION MONITORING

The Principal Copermittee must submit to the San Diego Water Board for review and approval, a detailed draft of the wet weather MS4 discharge monitoring program to be implemented. The description must identify and provide the rationale for all constituents monitored, locations of monitoring, frequency of monitoring, and analyses to be conducted with the data generated. The draft must be submitted with the proposed monitoring program (Section III.A.1).

C. Non-Storm Water Dry Weather Action Levels and Illicit Discharge Detection and Elimination

Each Copermittee must collaborate with the other Copermittees to conduct, and report on a year-round watershed based Dry Weather Non-storm Water MS4 Discharge Monitoring Program. The monitoring program's implementation, analysis, assessment, and reporting must be conducted to assess compliance with section B and C of this Order, meet the goals of the MRP, and conduct Illicit Discharge Detection and Elimination Activities under Section F.4 of this Order. The monitoring program must also be designed to assess the contribution of dry weather flows to Clean Water Act Section 303(d) listed impairments. The monitoring program must include the following components:

1. MS4 OUTFALL MONITORING

Each Copermittee's program must be designed to determine levels of pollutants in effluent discharges from the MS4 into receiving waters. Each Copermittee must conduct the following dry weather field screening and analytical monitoring tasks:

- a. Dry Weather Non-storm Water Effluent Analytical Monitoring Station Identification
 - (1) Sampling Stations must be located at major outfalls pursuant to section C of this Order. Other outfall sampling points (or any other point of access such as manholes) identified by the Copermittees as potential high risk sources of polluted effluent or as identified under Section C.4 of the Order must be sampled.
 - (2) Each Copermittee must clearly identify each dry weather effluent analytical monitoring station on its MS4 Map as either a separate GIS layer or a map overlay hereinafter referred to as a Dry Weather Non-storm Water Effluent Analytical Stations Map.

b. Develop Dry Weather Non-storm Water Effluent Analytical Monitoring Procedures

Each Copermittee must develop and/or update written procedures for effluent analytical monitoring including field observations, monitoring, and analyses to be conducted. These procedures must be consistent with 40 CFR part 136. At a minimum, the procedures must meet the following guidelines and criteria:

- (1) Determining Sampling Frequency: Effluent analytical monitoring must be conducted at major outfalls and identified stations. The Copermittees must sample a representative percentage of major outfalls and identified stations within each hydrologic subarea.¹² The sampling must be done to assess compliance with dry weather non-storm water action levels pursuant to section C of this Order. All monitoring conducted must be preceded by a minimum of 72 hours of dry weather.
- (2) Sampling of non-storm water discharges may be done utilizing grab samples. If a ponded MS4 discharge is observed at a monitoring station, the Copermittee(s) must record the observation and collect at least one (1) grab sample. If flow is evident, a 1-hour composite sample may be taken. The Copermittee(s) must estimate the discharge flow by measuring the width of water surface, approximate depth of water, and approximate flow velocity. A flow meter may also be utilized.
- (3) Effluent samples must undergo analytical laboratory analysis for (a) all constituents described in *Table 1. Analytical Testing for Mass Loading and Stream Assessment* of this Order; (b) Constituents with assigned non-storm water action levels under Section C of this Order; and (c) Total Residual Chlorine.
- (4) If the station is dry (i.e. no flowing or ponded MS4 discharge is observed), the Copermittee(s) must make and record all applicable observations on the MS4 outfall and receiving waters, including any evidence of past non-storm water flows and the presence of trash.

¹² A representative percentage determination must consider hydrologic conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, and land use types (commercial, residential and industrial).

2. SOURCE IDENTIFICATION MONITORING

The Copermittees must collaborate to develop and implement a monitoring program to identify sources of pollutants in non-storm water discharges in accordance with Sections C and F.4 of this Order. The source identification portion of the monitoring program must include the following components:

- a. Development and/or update of response criteria for dry weather non-storm water effluent analytical monitoring results:
 - (1) Response criteria must include action levels described in Section C of this Order.
 - (2) Response criteria must include evaluation of LC₅₀ levels for toxicity to appropriate test organisms.
- b. Develop and/or update Illicit Discharge Detection and Elimination response procedures for source identification follow up investigations and elimination in the event of exceedance of dry weather non-storm water effluent analytical monitoring response criteria (see above). These procedures must be consistent with procedures required in section C, F.4.d, and F.4.e. of this Order.

3. COMMENCEMENT OF MS4 OUTFALL AND SOURCE IDENTIFICATION MONITORING

The Copermittees must commence implementation of dry weather effluent analytical monitoring under the requirements of this Order no later than **July 1, 2012**. If monitoring indicates an illicit connection or illegal discharge, the Copermittee(s) must conduct the follow-up investigation and elimination activities described in sections C, F.4.d and F.4.e of this Order. In the interim period until the dry weather non-storm water effluent analytical monitoring program of this Order is implemented, each Copermittee must continue to implement dry weather field screening and analytical monitoring as it was most recently implemented pursuant to Order No. 2004-001.

D. High Priority Inland Aquatic Habitat Monitoring

The Copermittees must develop and submit to the San Diego Water Board by April 01, 2012, an inland aquatic habitat monitoring program for areas supporting high priority aquatic and/or riparian species. The goal of the monitoring program is to assess if MS4 storm water and non-storm water

discharges are affecting high priority inland aquatic habitat. The monitoring will assist the Copermitees in preventing the degradation of high quality waters within the jurisdiction of this Order that support high priority species by identifying discharges from MS4s which may cause or have the potential to cause impairment of beneficial uses within these areas.¹³ High priority species include those federally and/or state listed as endangered, threatened, or as a species of concern. The design and goal of the monitoring program must be consistent with the criteria listed in Section I.B of this Monitoring Program, including evaluation of the protection of high priority species in receiving waters. The Copermitees must implement the program unless otherwise directed in writing by the San Diego Water Board.

The monitoring program must include the following components:

1. OUTFALL AND RECEIVING WATER MONITORING

The program must be designed to determine levels of pollutants in storm water and non-storm water effluent discharges from the MS4 discharged into high priority inland aquatic habitat(s) and the level of those pollutants found in ambient receiving waters subject to the discharge. The Copermitees must conduct the following field screening and analytical monitoring tasks:

a. MS4 and Receiving Waters Monitoring Station Identification

- (1) MS4 discharge stations must be major outfalls that directly discharge into high priority inland aquatic habitat. MS4 discharge stations may be selected in conjunction with monitoring required under Section II.B and II.C of the Receiving Waters and MS4 Discharge Monitoring Program.
- (2) Receiving water station(s) must be located upstream and downstream of the discharge within the high priority inland aquatic habitat. Receiving water stations must be located to prevent any significant co-mingling of receiving water flows with other sources.

¹³ In accordance with requirements of State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality Waters in California.

b. Develop Analytical Monitoring Procedures

Each Copermittee must develop procedures for analytical monitoring (these procedures must be consistent with 40 CFR part 136), including field observations, pollutants to be monitored, analyses to be conducted, and quality assurance/control. At a minimum, the procedures must meet the following guidelines and criteria:

- (1) Determining Sampling Frequency: The Copermittees must sample a representative number of major outfalls and receiving waters that are considered high priority inland aquatic habitat. Sampling of the discharge and receiving waters must be paired and occur during both storm and non-storm conditions.
- (2) Sampling in receiving waters may be done utilizing grab samples, though composite samples are encouraged. Sampling of storm and non-storm water discharges from the MS4 must be done in accordance with Section II.B and II.C. If ponded receiving waters is/are observed at a monitoring station, the Copermittees must make written observations and collect at least one (1) grab sample. The Copermittee(s) must estimate the flow by measuring the width of water surface, approximate depth of water, and approximate flow velocity
- (3) The proposed constituents for which samples will undergo analytical laboratory analysis.
- (4) Procedures for recording applicable observations when monitoring stations are dry (i.e. no flowing water or ponded conditions).

3. ASSESSMENT OF MONITORING RESULTS

The program must include a discussion of monitoring results within the monitoring annual report. The discussion must include an evaluation of the contribution of MS4 discharges to ambient water conditions within high priority inland aquatic habitats, as well as any actions taken to prevent and/or reduce sources of those pollutants.

4. SOURCE IDENTIFICATION MONITORING

The Copermittees must collaborate to conduct source identification monitoring in accordance with Section II.B and II.C of the Monitoring and Reporting Program of this Order.

E. Special Studies

1. The Copermitees must conduct special studies, including any monitoring and/or modeling required for TMDL development and implementation, as directed by the San Diego Water Board.
2. Sediment Toxicity Study

The Copermitees must develop and submit to the San Diego Water Board by April 01, 2012, a special study workplan to investigate the toxicity of sediment in streams and potential impact on benthic macroinvertebrate IBI scores. The Sediment Toxicity Special Study must be implemented in conjunction with the Stream Assessment Monitoring in II.A.2. The Copermitees must implement the special study unless otherwise directed in writing by the San Diego Water Board.

The Sediment Toxicity Special Study must include the following elements:

- a. Sampling Locations: At least 4 stream assessment locations must be sampled, including 1 reference site and 1 mass loading site. Selection of sites must be done with consideration of subjectivity of receiving waters to discharges from residential and agricultural land uses.
- b. Frequency: At a minimum, sampling must occur once per year at each site for at least 2 years. Sampling must be done in conjunction with the stream assessment sampling required under Section II.A.2 of the Monitoring and Reporting Program of this Order.
- c. Parameters/Methods: At a minimum, sediment toxicity analysis must include the measurement of metals, pyrethroids and organochlorine pesticides. The analysis must include estimates of bioavailability based upon sediment grain size, organic carbon and receiving water temperature at the sampling site. Acute and chronic toxicity testing must be done using *Hyalella azteca* in accordance with Table 2.
- d. Results: Results and a Discussion must be included in the Monitoring Annual Report (see III.A). The Discussion must include an assessment of the relationship between observed IBI scores under Section II.A.2 and all variables measured.

3. Trash and Litter Investigation

The Copermittees must develop and submit to the San Diego Water Board by September 01, 2012, a special study workplan to assess trash (including litter) as a pollutant within receiving waters on a watershed based scale. Litter is defined in California Government Code 68055.1g as "...improperly discarded waste material, including, but not limited to, convenience food, beverage, and other product packages or container constructed of steel, aluminum, glass, paper, plastic and other natural and synthetic, materials, thrown or deposited on lands and waters of the state, but not including the properly discarded waste of the primary processing of agriculture, mining, logging, sawmilling, or manufacturing." A lead Copermittee must be selected for the Santa Margarita HU for the purposes of this Special Study. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board

The Trash and Litter Investigation must include the following elements:

- a. Locations: The lead Copermittee must identify suitable sampling locations within the Santa Margarita HU.
- b. Frequency: Trash at each location must be monitored a minimum of twice during the wet season following a qualified monitoring storm event (minimum of 0.1 inches preceded by 72 hours of dry weather) and twice during the dry season.
- c. Protocol: The lead Copermittee for the Santa Margarita HU must use the "Final Monitoring Workplan for the Assessment of Trash in San Diego County Watersheds" and "A Rapid Trash Assessment Method Applied to Waters of the San Francisco Bay Region" to develop a monitoring protocol for the Santa Margarita HU.
- d. Results and Discussion from the Trash and Litter Study must be included in the Monitoring Annual Report. The Results and Discussion must, at a minimum, include source identification, an evaluation of BMPs for trash reduction and prevention, and a description of any BMPs implemented in response to study results.

4. Agricultural, Federal and Tribal Input Study

The Copermittees must develop and submit to the San Diego Water Board by September 01, 2012, a special study workplan to investigate the water quality of agricultural, federal and tribal runoff that is discharged into

their MS4 (see Finding D.3.c of the Order). The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board.

The Agricultural, Federal and Tribal Input Special Study must include the following elements:

- a. Locations: The Copermittees must identify a representative number of sampling stations within their MS4 that receive discharges of agricultural, federal, and tribal runoff that has not co-mingled with any other source. At least one station from each category must be identified.
 - b. Frequency: One storm event must be monitored at each sampling location each year for at least 2 years.
 - c. Parameters/Methods: At a minimum, analysis must include those constituents listed in Table 1 of the MRP (see II.A.1). Grab samples may be utilized, though composite samples are preferred. Copermittees must also measure or estimate flow rates and volumes of discharges into the MS4.
 - d. Results: Results and Discussion from the Agricultural, Federal and Tribal Input Study must be included in the Monitoring Annual Report.
5. MS4 and Receiving Water Maintenance Study

The Copermittees must develop and submit to the San Diego Water Board by April 01, 2012, a special study workplan to investigate receiving waters that are also considered part of the MS4 (see Finding D.3.c of the Order) and which are subject to continual vegetative clearance activities (e.g. mowing). The study must be designed to assess the effects of vegetation removal activities and water quality, including, but not limited to, modification of biogeochemical functions, in-stream temperatures, receiving water bed and bank erosion potential and sediment transport. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board.

The MS4 and Receiving Water Maintenance Special Study must include the following elements:

- a. Locations: The Copermittees must identify suitable sampling locations, including at least one reference system that is not subject to maintenance activities.

- b. Parameters/Methods: At a minimum, the Copermittees must monitor pre and post maintenance activities for indicator bacteria, turbidity (NTU), temperature, dissolved oxygen and nutrients (Nitrite, Nitrate, Total Kjeldahl Nitrogen, Ammonia and Total Phosphorous). Copermittees must also measure or estimate flow rates and volumes.
- c. Results and Discussion from the MS4 and Receiving Water Maintenance Study must be included in the Annual Monitoring Report. The Discussion must include relevance of findings to CWA Section 303(d) listed impaired waters.

6. Intermittent and Ephemeral Stream Perennial Conversion Study

The Copermittees must develop and submit to the San Diego Water Board by April 01, 2013, a special study workplan to investigate the extent of any impacts to beneficial uses from the conversion of historically ephemeral or intermittent receiving waters to perennially flowing waters due to the continued discharge of currently exempted non-storm water from the MS4 and/or discharges into MS4s covered under a separate NPDES permit into receiving waters. The goal of the study is to assess if any impacts to beneficial uses, including, but not limited to, WILD, WARM, COLD or RARE, have occurred due to continuous discharge of currently exempted non-storm water discharges, and if the discharges should no longer be exempt. The Copermittees must implement the special study unless otherwise directed in writing by the San Diego Water Board.

The Intermittent and Ephemeral Stream Perennial Conversion Special Study must include the following elements:

- a. Locations: The Copermittees must investigate their MS4 and adjacent downstream receiving waters to identify portions that have historically been ephemeral or intermittent but currently exhibit perennial flow due to exempted non-storm water discharges. Investigation must include historic habitat assessments, USGS gauging information, and historic aerial photography. Sampling must occur at a minimum of 2 identified perennially converted locations. Should the Copermittees be unable to locate any converted waters, a full description of the investigation must be documented in the annual report.

- b. Parameters/Methods: The Copermittees must conduct water quality monitoring of the non-storm water discharge in accordance with Section C of this Order. In addition, the Copermittees must select a minimum of 2 downstream sampling points within the receiving waters subject the discharge and conduct the following:
 - (1) Grab samples must be taken and analyzed for indicator bacteria, nutrients (Nitrite, Nitrate, Total Kjeldahl Nitrogen, Ammonia and Total Phosphorous), turbidity (NTU), temperature, dissolved oxygen, total hardness, pH and 303(d) listed pollutants for all receiving waters at or downstream of the sampling site. The Copermittees must measure or estimate flow rates and volumes at each sampling point.
 - (2) Sampling at each site must include a quantitative and qualitative evaluation of beneficial uses. At a minimum, sampling must include observation estimation of active bed and bank erosion and erosion potential, invasive/non-native plant cover, aquatic non-native species, and potential vector control requirements.
 - c. Results and Discussion from the Intermittent and Ephemeral Stream Perennial Conversion Study must be included in the Annual Monitoring Report.
7. Stormwater Monitoring Coalition (SMC) Regional Monitoring of Southern California Coastal Watersheds:

The Copermittees must implement the monitoring program developed by the SMC for Regional Monitoring of the southern California coastal watersheds within the Santa Margarita Hydrologic Unit. Each Copermittee must evaluate the results of the monitoring program within and downstream of their jurisdiction and integrate the results into program assessments and modifications.

F. Monitoring Provisions

All monitoring activities must meet the following requirements:

- 1. Where procedures are not otherwise specified in this Receiving Waters Monitoring and Reporting Program, sampling, analysis and quality assurance/quality control must be conducted in accordance with the Quality Assurance Management Plan (QAMP) for the State of California's Surface Water Ambient Monitoring Program (SWAMP), adopted by the State Water Resources Control Board (SWRCB).

2. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity [40 CFR 122.41(j)(1)].
3. The Copermittees must retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the San Diego Water Board or USEPA at any time and must be extended during the course of any unresolved litigation regarding this discharge. [40 CFR 122.41(j)(2), CWC section 13383(a)]
4. Records of monitoring information must include [40 CFR 122.41(j)(3)]:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
5. All sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR part 136, unless other test procedures have been specified in this Receiving Waters Monitoring and Reporting Program or approved by the San Diego Water Board [40 CFR 122.41(j)(4)].
6. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order must, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. [40 CFR 122.41(j)(5)]
7. Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean unless otherwise specified in this Receiving Waters Monitoring and Reporting Program. [40 CFR 122.41(l)(4)(iii)]

8. All chemical, bacteriological, and toxicity analyses must be conducted at a laboratory certified for such analyses by the California Department of Health Services or a laboratory approved by the San Diego Water Board.
9. For priority toxic pollutants that are identified in the California Toxics Rule (CTR) (65 Fed. Reg. 31682), the Copermittees must instruct their laboratories to establish calibration standards that are equivalent to or lower than the Minimum Levels (MLs) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). If a Copermittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Copermittee must submit documentation from the laboratory to the San Diego Water Board for approval prior to raising the ML for any priority toxic pollutant.
10. The San Diego Water Board may make revisions to this Receiving Waters and MS4 Discharge Monitoring and Reporting Program at any time during the term of Order No. R9-2010-0016 and may include a reduction or increase in the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
11. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance must, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both. [40 CFR 122.41(k)(2)]
12. Monitoring must be conducted according the USEPA test procedures approved under 40 CFR 136, "Guidelines Establishing Test Procedures for Analysis of Pollutants under the Clean Water Act" as amended, unless other test procedures have been specified in this Receiving Waters and MS4 Discharge Monitoring and Reporting Program, in Order No. R9-2010-0016, or by the San Diego Water Board.
13. If a Copermittee(s) monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136, unless otherwise specified in the Order, the results of this monitoring must

be included in the calculation and reporting of the data submitted in the reports requested by the San Diego Water Board. [40 CFR 122.41(I)(4)(ii)]

III. REPORTING PROGRAM

A. Monitoring Reporting

1. Planned Monitoring Program: The Principal Copermittee must submit to the San Diego Water Board by **June 1, 2012**, a proposed workplan describing the Receiving Waters and MS4 Discharge Monitoring Program to be implemented. Any updates to the planned monitoring program workplan proposed by the Copermittees shall be submitted with each Monitoring Annual Report. The Copermittees shall implement the proposed workplan unless otherwise directed in writing by the San Diego Water Board.
2. Monitoring Annual Report: The Principal Copermittee must submit the Receiving Waters and MS4 Discharge Monitoring Annual Report to the San Diego Water Board on October 1 of each year, beginning on **October 1, 2013**. Receiving Waters and MS4 Discharge Monitoring Annual Reports must include monitoring conducted under the previous fiscal year, must meet the following requirements:
 - a. Annual monitoring reports must include the data/results, methods of evaluating the data, graphical summaries of the data, and an explanation/discussion of the data for each monitoring program component.
 - b. Annual monitoring reports must include a watershed-based analysis of the findings of each monitoring program component (mass loading, bioassessment, etc...). Each watershed-based analysis must include:
 - (1) Identification and prioritization of water quality problems within each watershed.
 - (2) Identification and description of the nature and magnitude of potential sources of the water quality problems within each watershed.
 - (3) Evaluation and presentation of pollutant load and concentration increases or decreases at each mass loading station over time.
 - (4) Evaluation of pollutant loads and concentrations measured at mass loading stations with respect to land use, population, sources, and other characteristics of watersheds using tools such as multiple linear regression, factor analysis, and cluster analysis.

- (5) Identification of links between source activities/conditions and observed receiving water impacts.
 - (6) Identification of recommended future monitoring to identify and address sources of water quality problems.
 - (7) Results and discussion of any TIE conducted, together with actions that will be implemented to reduce the discharge of pollutants in storm water, eliminate any discharge of pollutants in non-storm water, and abate the sources causing the toxicity.
- c. Annual monitoring reports must include an analysis and interpretation of the data for each watershed with respect to the management questions listed in section I.B of this Receiving Waters Monitoring and Reporting Program.
 - d. Annual monitoring reports must include a discussion describing how each of the goals listed in section I.A of this MRP is addressed by the Copermittees' monitoring program for the monitoring year covered by the report.
 - e. Annual monitoring reports must include identification and analysis of any long-term trends in storm water or receiving water quality. Trend analysis must use nonparametric approaches, such as the Mann-Kendall test, including exogenous variables in a multiple regression model, and/or using a seasonal nonparametric trend model, where applicable.
 - f. Annual monitoring reports must provide an estimation of total pollutant loads (wet weather loads plus dry weather loads) due to MS4 Discharge for each of the hydrologic subareas, including for 303(d) pollutants specified in Table 2 of the Order.
 - g. Annual monitoring reports must, for each monitoring program component listed above, include an assessment of compliance with applicable water quality standards.
 - h. Annual monitoring reports must describe monitoring station locations by latitude and longitude coordinates, frequency of sampling, quality assurance/quality control procedures, and sampling and analysis protocols.

- i. Annual monitoring reports must use a standard report format and include the following elements:
 - (1) A stand alone comprehensive executive summary addressing all sections of the monitoring report;
 - (2) Comprehensive interpretations and conclusions; and
 - (3) Recommendations for future actions.
 - j. All monitoring reports submitted to the Principal Copermittee or the San Diego Water Board must contain the certified perjury statement described in Attachment B of this Order No. R9-2010-0016.
 - k. Annual monitoring reports must be reviewed prior to submittal to the San Diego Water Board by a committee of the Copermittees (consisting of no less than three different Copermittee members).
 - l. Annual monitoring reports must be submitted in both electronic and paper formats. Electronic formats must be CEDEN or SWAMP-uploadable.¹⁴
- 3. Monitoring programs and reports must comply with section II.F of Receiving Waters and MS4 Discharge Monitoring and Reporting Program No. R9-2010-0016 and Attachment B of this Order.
 - 4. Following completion of an annual cycle of monitoring in October, the Copermittees must make the monitoring data and results available to the San Diego Water Board at the San Diego Water Board's request. Following completion of the annual cycle of monitoring, the Copermittees must upload monitoring data and results into the California Environmental Data Exchange Network (CEDEN)¹⁵.

B. Interim Reporting Requirements

For the October 2010 to October 2012 monitoring period, the Principal Copermittee must submit the Receiving Waters Monitoring Annual Report as required under Order No. 2004-001. The Receiving Waters Monitoring Annual Report must address the monitoring conducted to comply with the requirements of Order No. 2004-0001.

¹⁴ For updates to the SWAMP templates and formats, see <http://www.waterboards.ca.gov/swamp>.

¹⁵ <http://www.ceden.org/>

C. Reporting Dates

Table 5. Table of Required MRP Reporting Dates and Frequencies.

Submittal	Section	Completion Date	Frequency
Description of Proposed Monitoring Program	III.A.1	June 1, 2012	One Time
Receiving Waters and MS4 Discharge Monitoring Annual Reports, Including Proposed Updates to the Monitoring Program	III.A.2	Starting October 1, 2013	Annual
Copermittees submit Interim Monitoring Program Annual Report	III.B	As required under Order No. 2004-001	One Time
Draft Wet Weather MS4 Discharge Monitoring Program	II.B	June 01, 2012	One Time
Draft High Priority Inland Aquatic Habitat Monitoring	II.D	April 01, 2012	One Time
Draft Sediment Toxicity Special Study	II.E.2	April 01, 2012	One Time
Draft Trash and Litter Special Study	II.E.3	September 01, 2012	One Time
Draft Agricultural, Federal and Tribal Input Study	II.E.4	September 01, 2012	One Time
Draft MS4 and Receiving Water Maintenance Study	II.E.5	April 01, 2012	One Time
Draft Intermittent and Ephemeral Stream Perennial Conversion Study	II.E.6	April 01, 2013	One Time

Attachment F

SOURCE DATA

I. STORM WATER ACTION LEVELS DATABASE.....2

II. NUMERIC ACTION LEVELS EVALUATION DATA¹9

¹ Represented data from monitoring conducted by the Copermitees and provided in the 2008-09 Annual Monitoring Report.

I. STORM WATER ACTION LEVELS DATABASE

N02+NO3 (mg/l)	Phosphorous Total (mg/l)	Cadmium Total (ug/l)	Copper Total (ug/l)	Lead Total (ug/l)	Zinc Total (ug/l)	Turbidity (NTU)
4.70	7.90	9.80	800.00	660.00	22500.00	10
4.20	7.19	6.00	340.00	620.00	18000.00	15
3.90	4.96	6.00	320.00	540.00	11000.00	15
3.90	4.50	6.00	270.00	520.00	9970.00	16
3.60	4.40	6.00	244.00	460.00	9100.00	22
3.60	4.24	6.00	230.00	450.00	8800.00	23
3.60	2.59	5.30	220.00	450.00	6500.00	23
3.50	2.59	5.00	220.00	440.00	5500.00	24
3.30	2.50	4.10	210.00	430.00	5000.00	24
3.30	2.50	4.00	210.00	400.00	4900.00	30
3.10	2.50	4.00	209.00	380.00	4600.00	31
3.00	2.27	4.00	209.00	360.00	4300.00	33
2.96	2.00	4.00	200.00	350.00	3800.00	36
2.90	2.00	4.00	200.00	330.00	3800.00	36
2.70	2.00	4.00	200.00	320.00	3400.00	39
2.70	2.00	3.90	200.00	320.00	3390.00	40
2.60	1.90	3.80	200.00	320.00	3100.00	45
2.60	1.90	3.40	180.00	310.00	2500.00	50
2.60	1.80	3.40	180.00	310.00	2200.00	50
2.50	1.80	3.20	166.00	310.00	2100.00	60
2.50	1.70	3.10	163.00	310.00	1829.00	61
2.32	1.70	3.00	160.00	300.00	1700.00	62
2.30	1.70	3.00	150.00	290.00	1500.00	65
2.20	1.60	3.00	140.00	280.00	1400.00	65
2.20	1.60	3.00	140.00	270.00	1300.00	66
2.10	1.60	3.00	140.00	270.00	1300.00	69
2.10	1.53	3.00	140.00	270.00	1285.00	70
2.10	1.50	3.00	140.00	270.00	1200.00	72
2.10	1.50	3.00	130.00	260.00	1100.00	80
2.00	1.47	3.00	130.00	260.00	1054.00	84
2.00	1.46	3.00	128.00	250.00	1000.00	97
2.00	1.40	3.00	120.00	250.00	980.00	111
2.00	1.40	3.00	120.00	250.00	960.00	140
1.90	1.40	3.00	120.00	245.00	850.00	151
1.90	1.30	2.90	120.00	230.00	850.00	157
1.90	1.30	2.80	120.00	230.00	850.00	590
1.90	1.30	2.70	111.00	225.00	850.00	
1.90	1.30	2.60	111.00	220.00	840.00	
1.80	1.30	2.50	110.00	220.00	780.00	
1.80	1.30	2.40	110.00	210.00	768.00	
1.70	1.24	2.40	110.00	210.00	760.00	
1.70	1.20	2.30	110.00	200.00	750.00	

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1.70	1.20	2.20	110.00	200.00	740.00	
1.70	1.20	2.10	110.00	190.00	740.00	
1.70	1.20	2.00	100.00	190.00	730.00	
1.70	1.10	2.00	100.00	190.00	720.00	
1.70	1.10	2.00	100.00	190.00	710.00	
1.60	1.10	2.00	100.00	170.00	710.00	
1.60	1.10	2.00	100.00	170.00	700.00	
1.60	1.06	2.00	100.00	170.00	700.00	
1.60	1.00	2.00	99.00	160.00	690.00	
1.60	0.96	2.00	94.00	160.00	690.00	
1.60	0.96	2.00	91.00	150.00	680.00	
1.60	0.94	2.00	91.00	150.00	680.00	
1.53	0.94	2.00	90.00	150.00	670.00	
1.50	0.92	2.00	90.00	150.00	660.00	
1.50	0.91	2.00	89.00	150.00	660.00	
1.50	0.85	2.00	87.00	140.00	660.00	
1.50	0.85	2.00	87.00	140.00	650.00	
1.50	0.85	2.00	84.00	140.00	630.00	
1.50	0.83	2.00	83.00	130.00	610.00	
1.40	0.83	2.00	82.00	130.00	610.00	
1.40	0.83	2.00	81.00	130.00	597.00	
1.40	0.81	2.00	81.00	130.00	590.00	
1.40	0.81	2.00	77.00	130.00	590.00	
1.40	0.81	2.00	77.00	123.00	576.00	
1.40	0.80	2.00	76.00	120.00	570.00	
1.40	0.80	2.00	74.00	120.00	570.00	
1.32	0.78	2.00	72.00	120.00	560.00	
1.30	0.78	1.90	72.00	120.00	560.00	
1.30	0.77	1.90	72.00	120.00	540.00	
1.30	0.77	1.90	72.00	115.00	540.00	
1.30	0.76	1.80	72.00	110.00	520.00	
1.30	0.76	1.80	71.00	110.00	520.00	
1.30	0.75	1.80	70.00	110.00	520.00	
1.30	0.75	1.70	70.00	110.00	510.00	
1.29	0.75	1.60	67.00	102.00	500.00	
1.20	0.74	1.60	66.00	100.00	500.00	
1.20	0.73	1.60	66.00	100.00	490.00	
1.20	0.72	1.60	66.00	100.00	480.00	
1.20	0.72	1.60	65.00	100.00	475.00	
1.20	0.72	1.60	65.00	100.00	470.00	
1.20	0.71	1.50	63.00	99.00	470.00	
1.20	0.71	1.50	63.00	97.00	462.00	
1.20	0.69	1.40	62.00	97.00	460.00	
1.20	0.68	1.30	62.00	97.00	460.00	
1.20	0.68	1.30	60.00	95.00	450.00	
1.20	0.68	1.20	60.00	91.00	440.00	
1.10	0.68	1.20	59.00	90.00	440.00	
1.10	0.68	1.20	56.59	90.00	440.00	

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1.10	0.67	1.20	55.00	87.00	430.00	
1.10	0.66	1.10	55.00	86.00	430.00	
1.10	0.66	1.10	54.00	86.00	430.00	
1.10	0.65	1.10	54.00	84.00	420.00	
1.10	0.65	1.10	54.00	82.00	420.00	
1.10	0.65	1.10	53.00	82.00	410.00	
1.10	0.65	1.00	53.00	81.00	409.00	
1.00	0.63	1.00	52.00	78.00	400.00	
1.00	0.62	1.00	51.00	78.00	400.00	
1.00	0.61	1.00	50.00	78.00	400.00	
1.00	0.60	1.00	50.00	77.00	390.00	
1.00	0.60	1.00	50.00	76.00	390.00	
1.00	0.59	1.00	50.00	76.00	390.00	
0.99	0.57	1.00	50.00	69.00	390.00	
0.99	0.57	1.00	50.00	69.00	390.00	
0.98	0.56	1.00	50.00	67.00	370.00	
0.97	0.56	1.00	50.00	66.00	370.00	
0.96	0.55	1.00	49.00	66.00	370.00	
0.96	0.55	1.00	49.00	66.00	360.00	
0.95	0.55	1.00	49.00	65.00	360.00	
0.95	0.53	1.00	48.00	64.00	360.00	
0.93	0.53	1.00	48.00	61.00	360.00	
0.93	0.53	1.00	47.00	57.00	350.00	
0.93	0.52	1.00	46.08	57.00	350.00	
0.93	0.52	1.00	46.00	56.00	350.00	
0.92	0.52	1.00	46.00	56.00	340.00	
0.90	0.52	1.00	44.25	53.00	340.00	
0.88	0.51	1.00	44.00	53.00	340.00	
0.87	0.51	1.00	44.00	52.60	340.00	
0.86	0.50	1.00	44.00	52.00	340.00	
0.85	0.49	1.00	44.00	51.00	340.00	
0.84	0.49	1.00	43.00	51.00	334.00	
0.83	0.48	1.00	43.00	50.00	330.00	
0.81	0.48	1.00	43.00	50.00	330.00	
0.81	0.48	1.00	42.00	50.00	330.00	
0.80	0.47	1.00	42.00	50.00	330.00	
0.80	0.47	1.00	42.00	50.00	330.00	
0.78	0.47	1.00	41.00	50.00	330.00	
0.78	0.46	1.00	40.00	50.00	330.00	
0.77	0.46	1.00	40.00	50.00	320.00	
0.77	0.46	1.00	40.00	50.00	320.00	
0.77	0.45	1.00	40.00	50.00	320.00	
0.74	0.45	1.00	40.00	50.00	320.00	
0.73	0.44	1.00	39.00	49.00	310.00	
0.72	0.44	1.00	39.00	47.00	310.00	
0.69	0.44	1.00	39.00	46.00	310.00	
0.69	0.44	1.00	39.00	46.00	308.00	
0.69	0.44	1.00	39.00	44.00	300.00	

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0.67	0.44	1.00	39.00	44.00	300.00
0.67	0.44	1.00	37.00	43.00	300.00
0.66	0.43	1.00	37.00	42.00	300.00
0.66	0.42	1.00	37.00	41.00	290.00
0.65	0.42	1.00	37.00	41.00	285.00
0.63	0.41	1.00	37.00	41.00	280.00
0.62	0.41	1.00	36.00	41.00	280.00
0.62	0.41	1.00	36.00	41.00	280.00
0.62	0.40	1.00	36.00	40.10	280.00
0.60	0.40	1.00	36.00	40.00	280.00
0.59	0.40	1.00	35.00	39.30	280.00
0.59	0.40	1.00	35.00	39.00	280.00
0.58	0.40	1.00	34.00	39.00	280.00
0.57	0.40	1.00	34.00	39.00	280.00
0.57	0.40	1.00	33.40	38.00	270.00
0.55	0.40	1.00	33.00	38.00	270.00
0.52	0.40	1.00	33.00	38.00	270.00
0.50	0.40	1.00	33.00	37.00	270.00
0.50	0.39	1.00	33.00	36.00	270.00
0.46	0.39	1.00	33.00	36.00	270.00
0.42	0.39	1.00	32.26	36.00	260.00
0.42	0.38	1.00	32.01	36.00	260.00
0.35	0.38	1.00	32.00	35.00	260.00
0.10	0.38	1.00	32.00	34.00	260.00
0.06	0.37	1.00	32.00	34.00	260.00
	0.36	1.00	32.00	33.00	250.00
	0.36	1.00	32.00	33.00	250.00
	0.36	1.00	32.00	33.00	250.00
	0.36	1.00	31.00	33.00	250.00
	0.35	1.00	31.00	32.00	247.00
	0.35	1.00	31.00	32.00	242.13
	0.35	1.00	31.00	31.94	240.00
	0.35	1.00	30.00	30.00	240.00
	0.34	1.00	30.00	30.00	240.00
	0.34	1.00	30.00	30.00	240.00
	0.34	1.00	30.00	30.00	240.00
	0.34	1.00	30.00	30.00	230.00
	0.34	1.00	29.00	30.00	230.00
	0.34	1.00	29.00	30.00	220.00
	0.33	1.00	28.00	29.00	220.00
	0.33	1.00	28.00	29.00	220.00
	0.33	0.98	28.00	29.00	210.00
	0.33	0.94	28.00	29.00	210.00
	0.33	0.94	27.19	28.00	210.00
	0.33	0.92	27.00	28.00	210.00
	0.32	0.90	27.00	28.00	210.00
	0.32	0.90	27.00	27.00	210.00
	0.32	0.86	26.00	27.00	210.00

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	0.32	0.80	26.00	26.31	205.00	
	0.32	0.80	26.00	26.00	202.79	
	0.31	0.71	25.00	26.00	202.00	
	0.31	0.70	25.00	25.00	200.00	
	0.30	0.70	25.00	25.00	200.00	
	0.30	0.60	24.00	25.00	200.00	
	0.30	0.60	24.00	24.60	200.00	
	0.30	0.59	23.00	24.00	200.00	
	0.30	0.59	23.00	24.00	200.00	
	0.30	0.52	23.00	24.00	200.00	
	0.30	0.50	23.00	24.00	194.49	
	0.29	0.50	23.00	23.00	190.00	
	0.29	0.50	22.00	23.00	190.00	
	0.29	0.50	22.00	23.00	190.00	
	0.29	0.50	21.00	23.00	190.00	
	0.29	0.50	21.00	23.00	184.13	
	0.29	0.50	21.00	23.00	180.00	
	0.28	0.50	21.00	22.20	180.00	
	0.28	0.50	20.36	22.00	180.00	
	0.28	0.50	20.00	22.00	180.00	
	0.27	0.50	20.00	22.00	180.00	
	0.27	0.50	20.00	22.00	180.00	
	0.27	0.50	20.00	21.20	180.00	
	0.26	0.50	20.00	21.10	170.00	
	0.26	0.40	19.00	21.00	170.00	
	0.26	0.40	19.00	20.00	170.00	
	0.26	0.40	18.00	19.10	170.00	
	0.25	0.30	18.00	19.00	160.00	
	0.25	0.30	18.00	19.00	160.00	
	0.25	0.30	18.00	19.00	160.00	
	0.25	0.30	18.00	19.00	160.00	
	0.25	0.30	17.00	18.50	160.00	
	0.25	0.30	17.00	18.00	160.00	
	0.24	0.20	17.00	18.00	160.00	
	0.24	0.20	17.00	18.00	160.00	
	0.24	0.20	17.00	18.00	160.00	
	0.23	0.04	17.00	17.00	160.00	
	0.23		17.00	17.00	150.00	
	0.23		17.00	17.00	150.00	
	0.23		17.00	17.00	150.00	
	0.22		16.00	17.00	150.00	
	0.22		16.00	17.00	150.00	
	0.22		16.00	17.00	146.00	
	0.22		16.00	17.00	145.00	
	0.22		16.00	17.00	140.00	
	0.22		15.00	16.90	140.00	
	0.22		15.00	16.00	140.00	
	0.21		15.00	15.00	140.00	

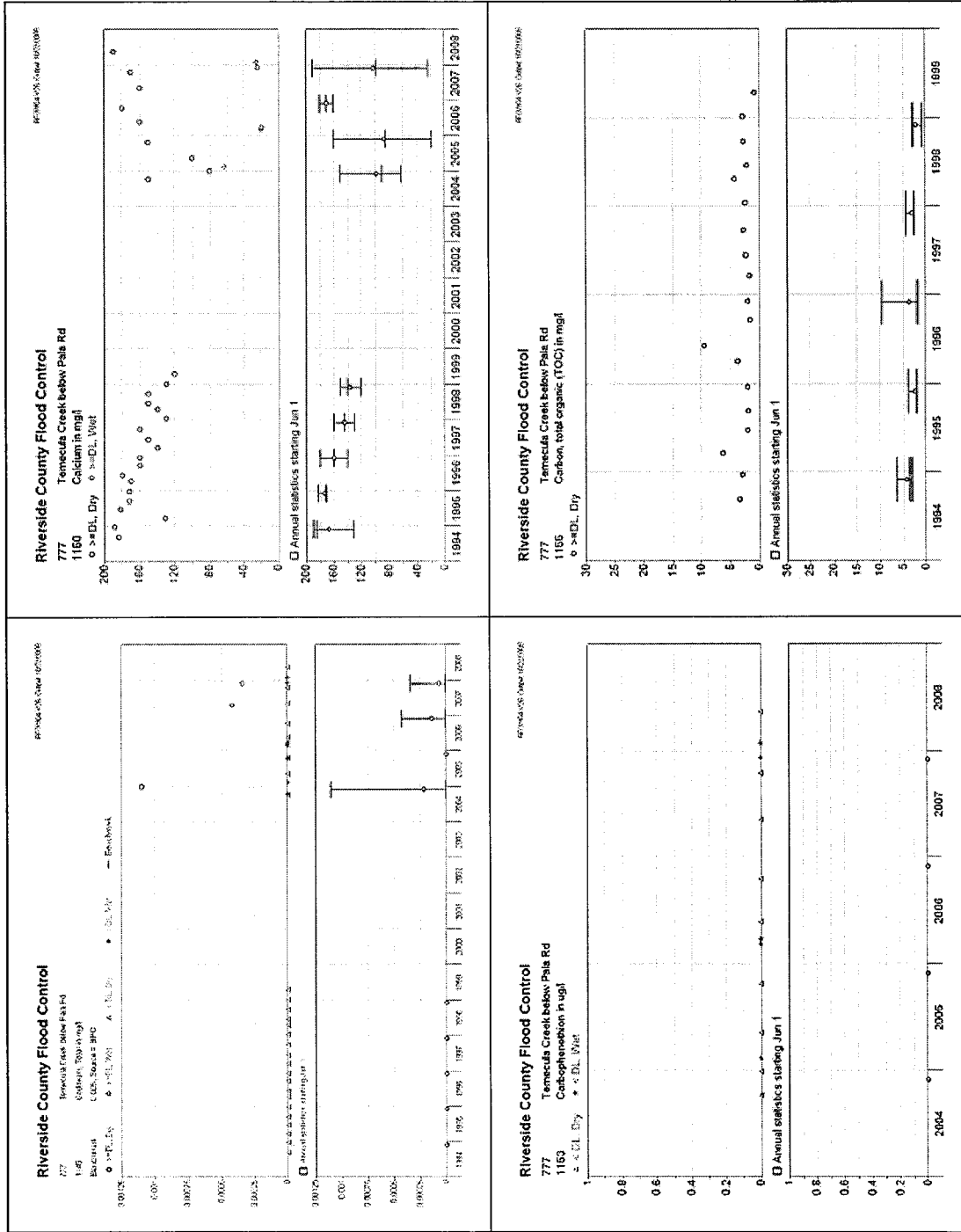
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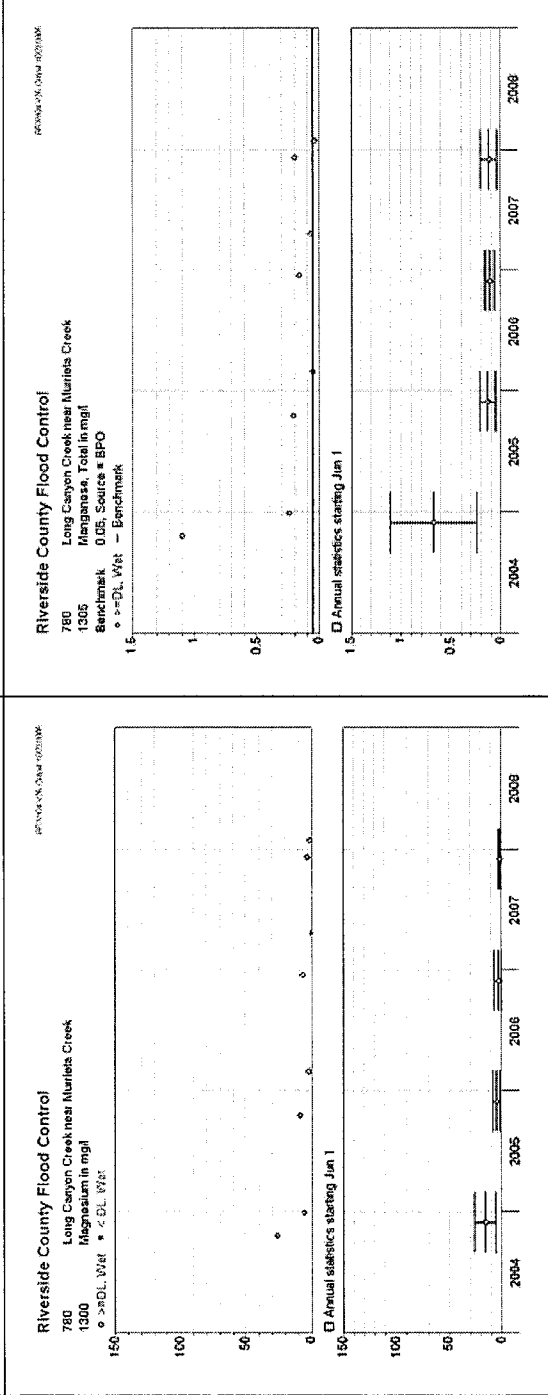
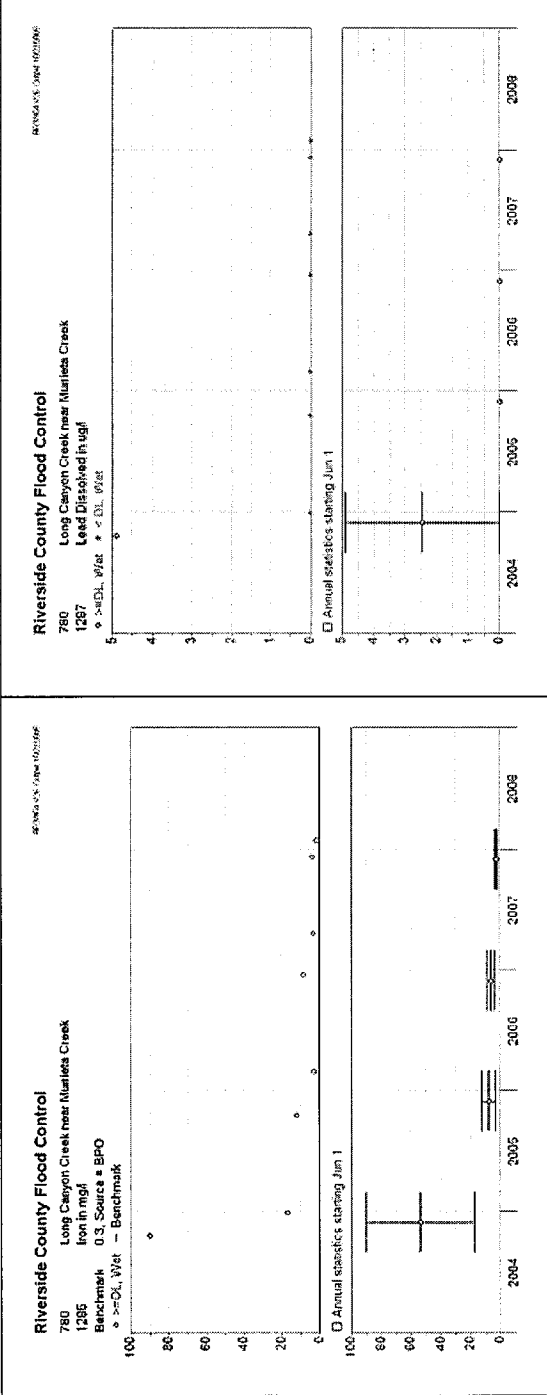
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	0.21		14.00	15.00	140.00
	0.21		14.00	14.00	140.00
	0.20		14.00	14.00	140.00
	0.20		14.00	14.00	136.55
	0.20		14.00	13.00	135.60
	0.20		14.00	13.00	130.00
	0.20		13.00	13.00	130.00
	0.20		13.00	13.00	130.00
	0.20		13.00	13.00	130.00
	0.20		13.00	12.00	130.00
	0.20		13.00	12.00	130.00
	0.19		13.00	12.00	130.00
	0.19		12.00	12.00	127.00
	0.19		12.00	12.00	124.00
	0.19		12.00	12.00	122.05
	0.19		12.00	11.00	120.00
	0.19		11.00	11.00	120.00
	0.19		11.00	11.00	120.00
	0.18		10.00	10.00	120.00
	0.18		10.00	10.00	112.11
	0.18		10.00	10.00	110.00
	0.18		10.00	10.00	110.00
	0.18		9.60	10.00	110.00
	0.18		9.60	10.00	110.00
	0.17		9.10	10.00	110.00
	0.17		9.10	10.00	110.00
	0.17		9.00	10.00	110.00
	0.17		8.30	9.60	110.00
	0.17		8.20	9.40	110.00
	0.16		8.00	9.10	108.00
	0.15		8.00	9.00	100.00
	0.15		7.70	9.00	100.00
	0.15		7.70	9.00	100.00
	0.15		7.00	9.00	100.00
	0.15		7.00	8.00	100.00
	0.15		6.80	8.00	100.00
	0.14		6.80	8.00	99.00
	0.14		6.80	8.00	98.00
	0.14		6.50	8.00	97.00
	0.14		6.50	8.00	93.40
	0.14		6.30	8.00	92.00
	0.14		6.30	7.60	92.00
	0.14		6.10	7.50	90.00
	0.13		5.60	7.00	90.00
	0.13		5.40	7.00	90.00

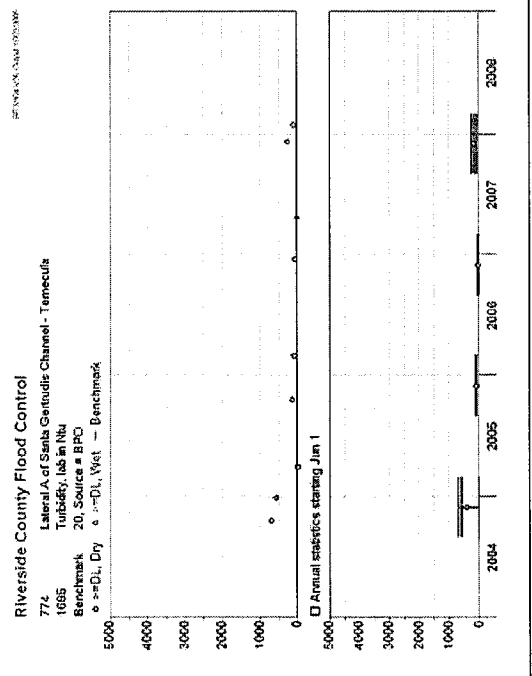
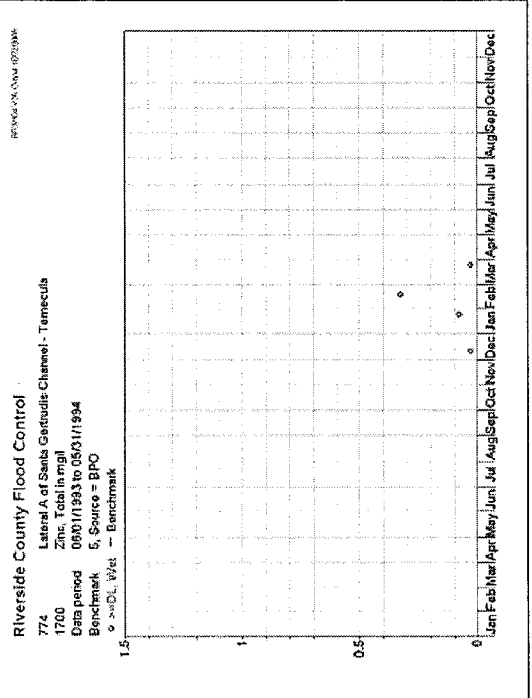
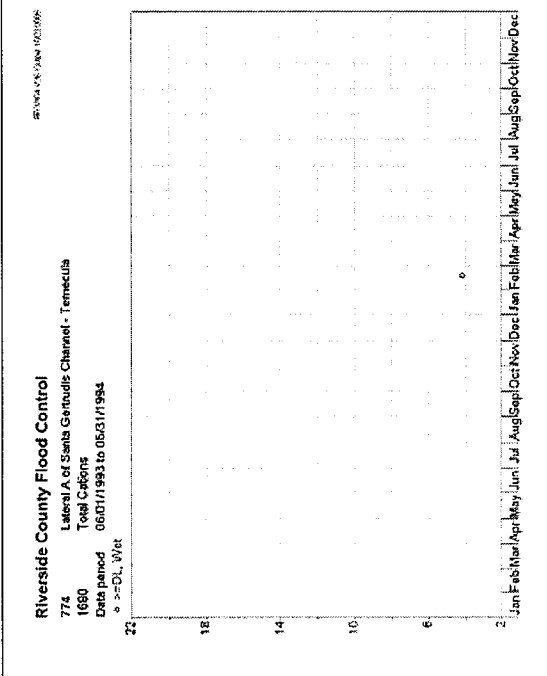
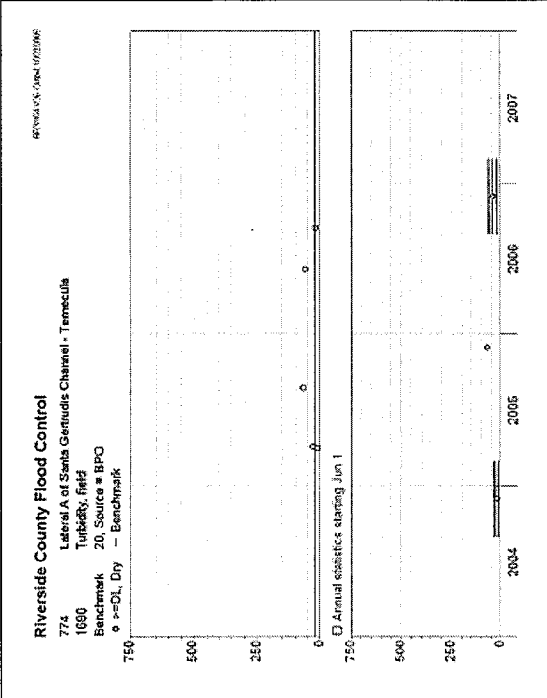
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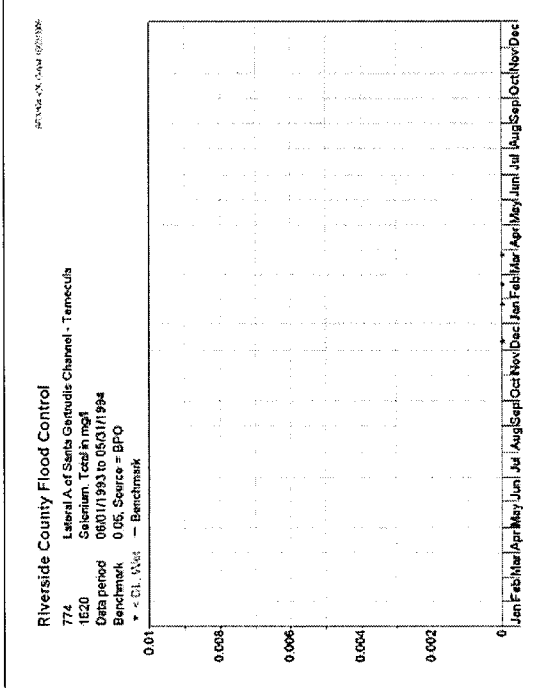
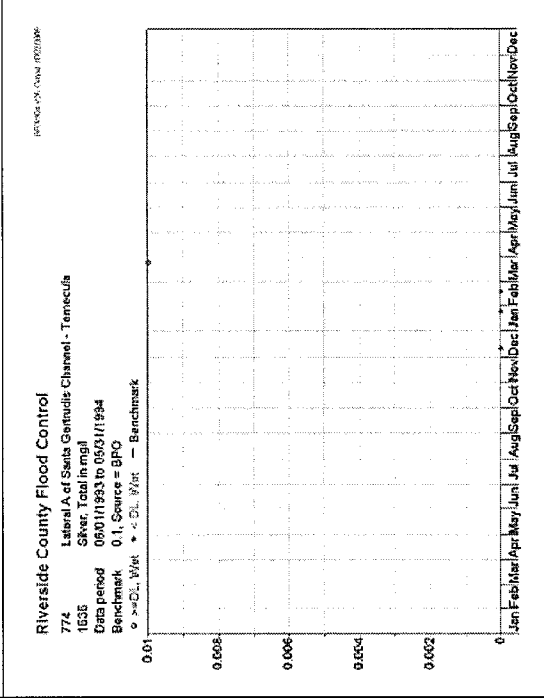
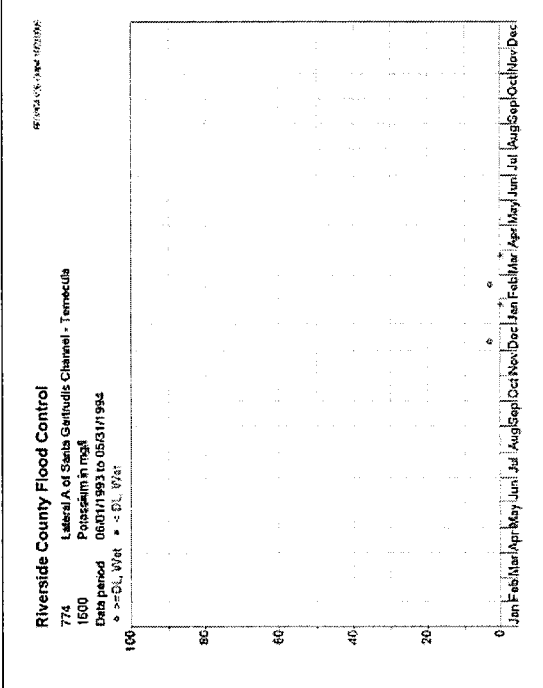
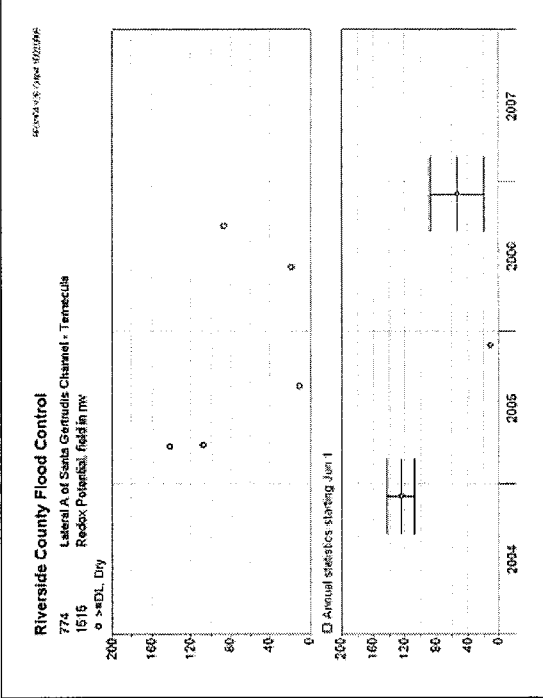
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	0.12		4.50	5.90	81.00	
	0.12		4.10	5.80	80.00	
	0.12		4.10	5.40	80.00	
	0.11		3.90	5.00	80.00	
	0.11		3.40	5.00	80.00	
	0.11		2.60	5.00	80.00	
	0.11		2.60	5.00	79.00	
	0.10		2.60	5.00	73.00	
	0.10		2.30	5.00	72.00	
	0.10		2.00	4.80	70.00	
	0.10		2.00	4.80	70.00	
	0.09		1.70	4.70	70.00	
	0.08		1.50	4.60	70.00	
	0.06		1.50	4.00	64.00	
	0.03		1.50	4.00	63.00	
			1.40	3.80	61.00	
			1.40	3.00	60.00	
				3.00	56.00	
				2.30	44.00	
				2.00	40.00	
				1.60	37.00	
					35.00	
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					24.00	
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					5.00	

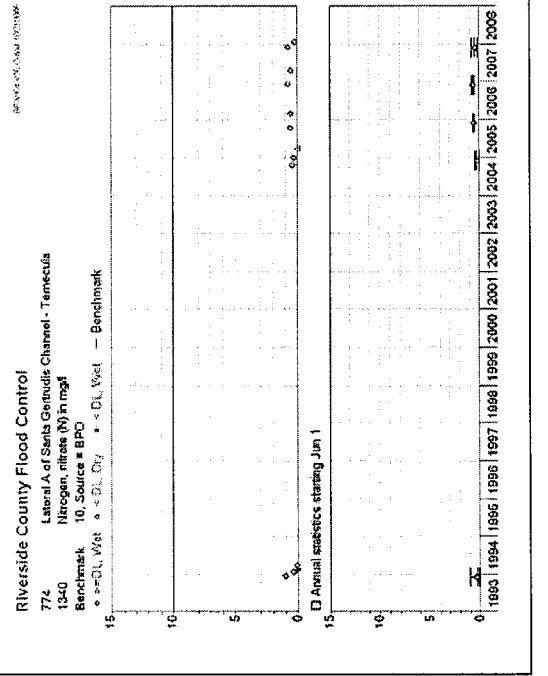
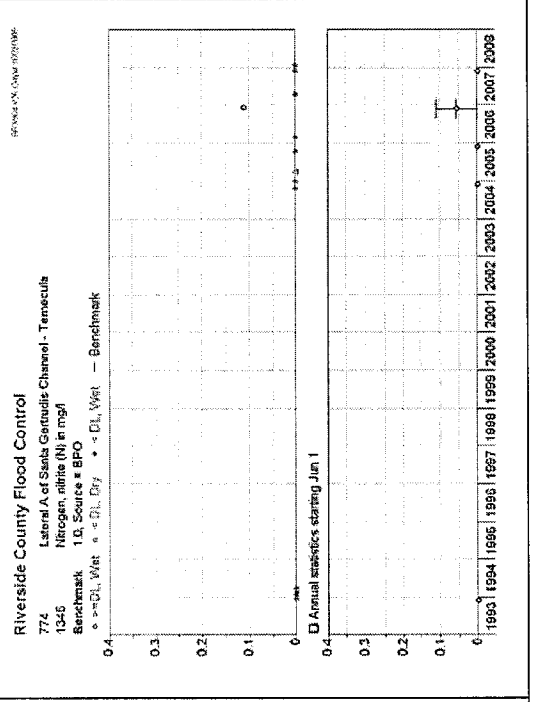
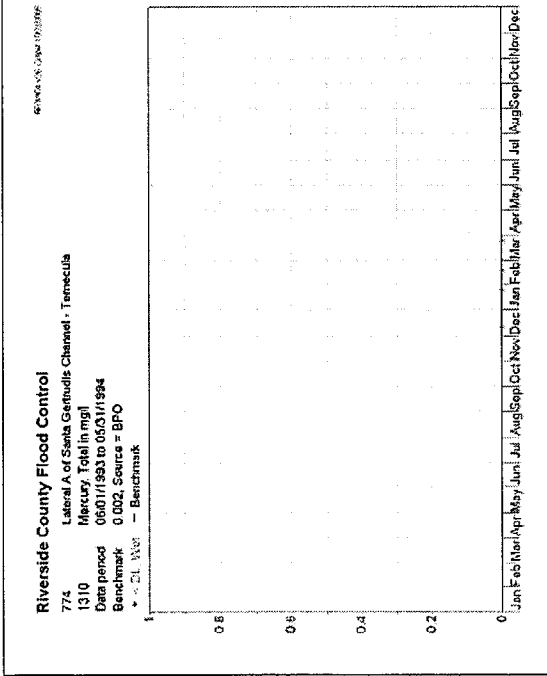
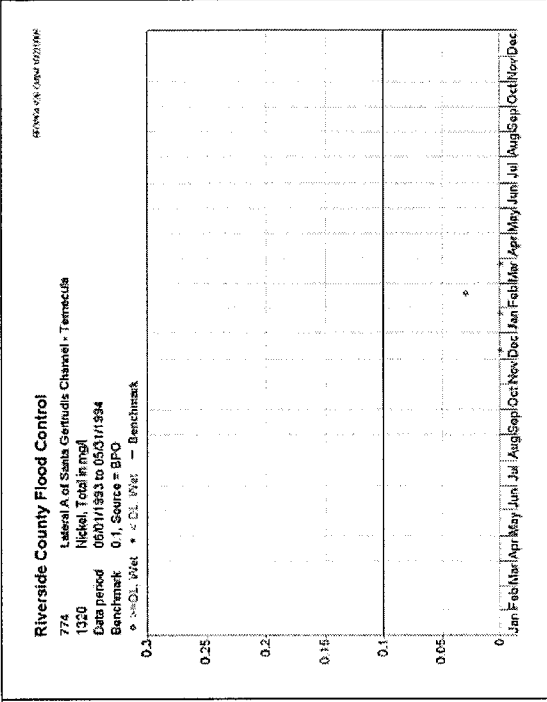
II. NUMERIC ACTION LEVELS EVALUATION DATA

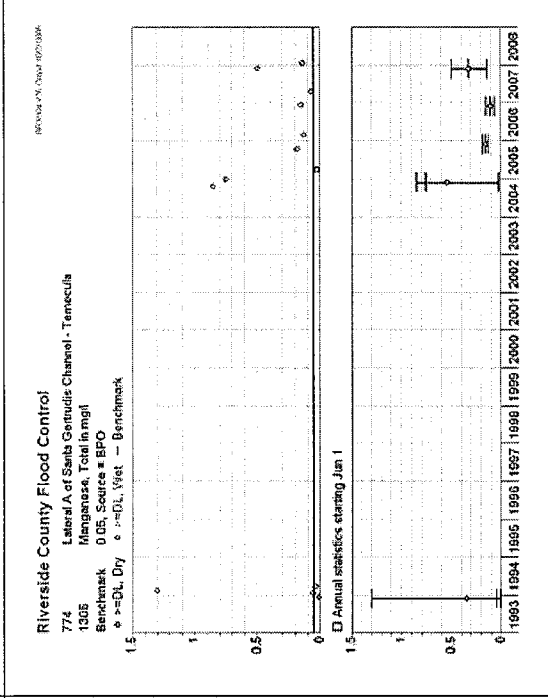
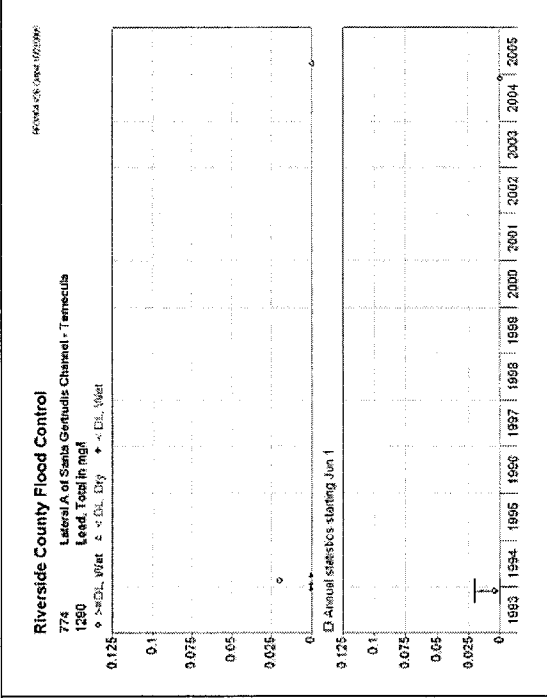
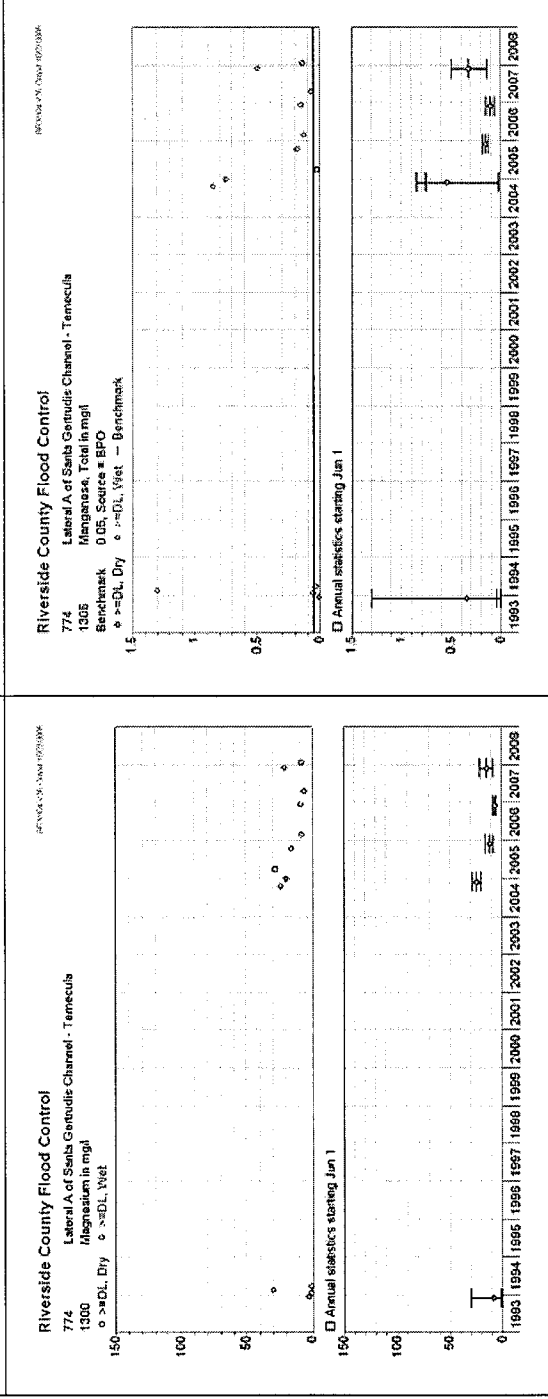
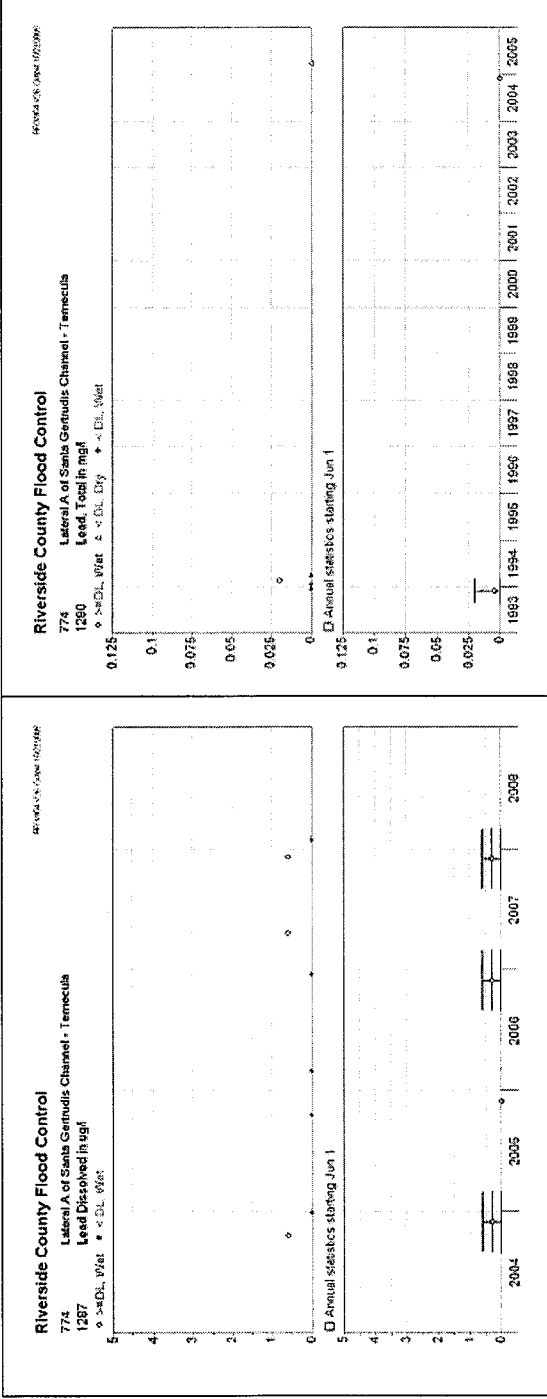


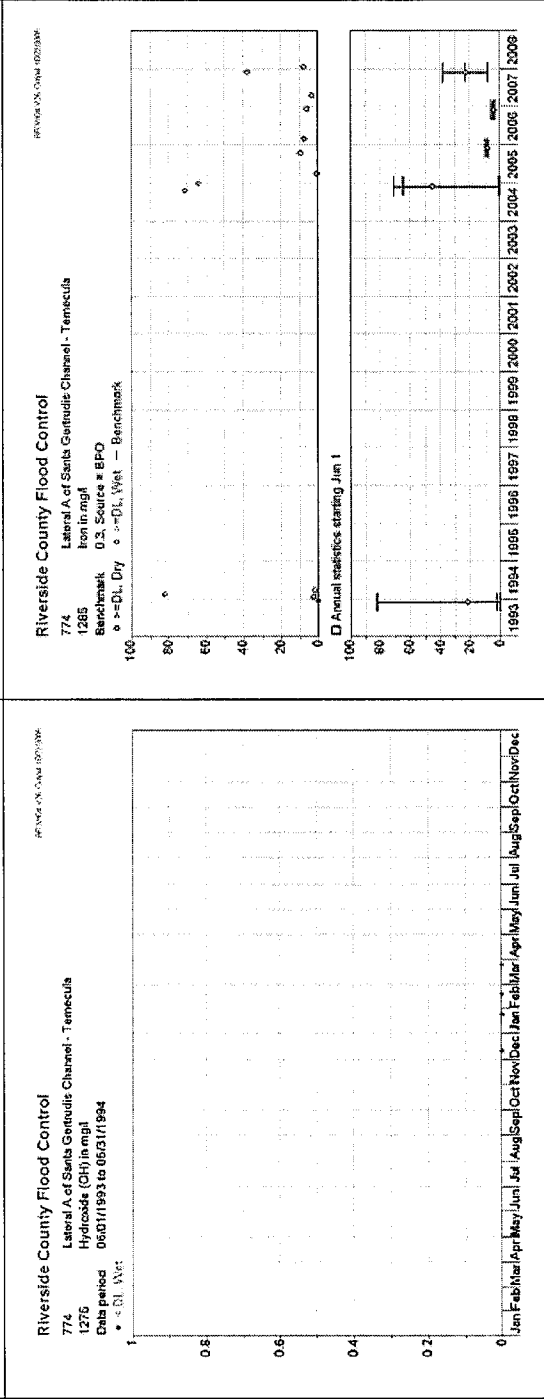
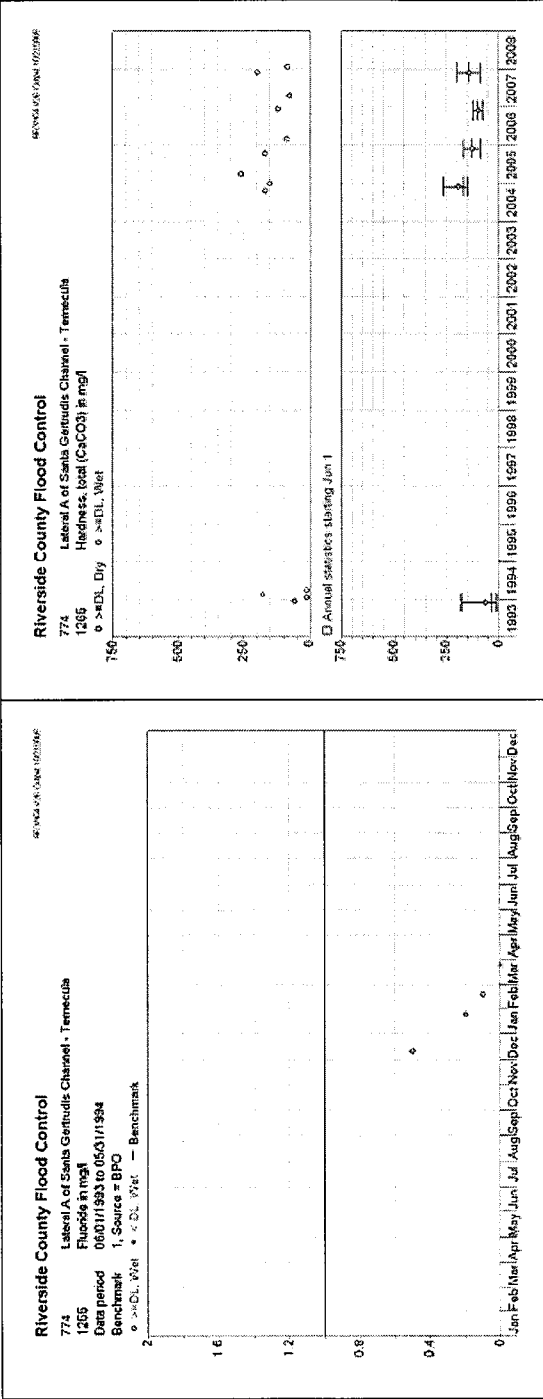


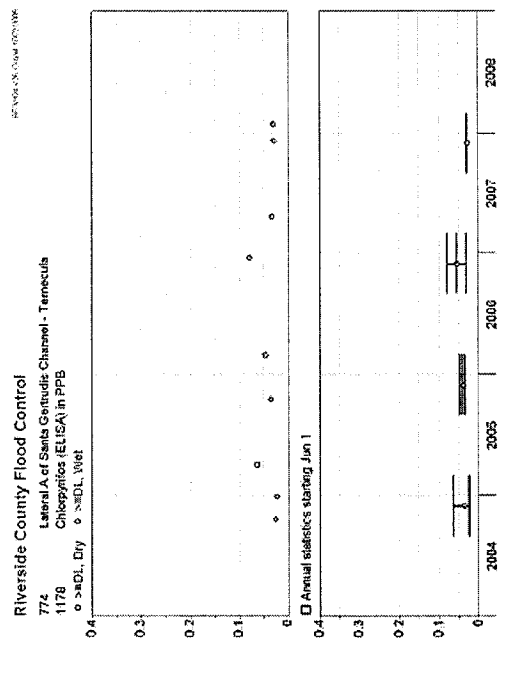
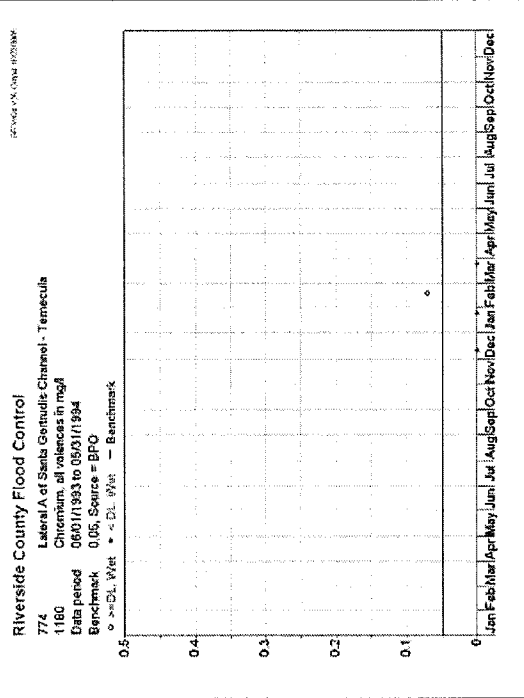
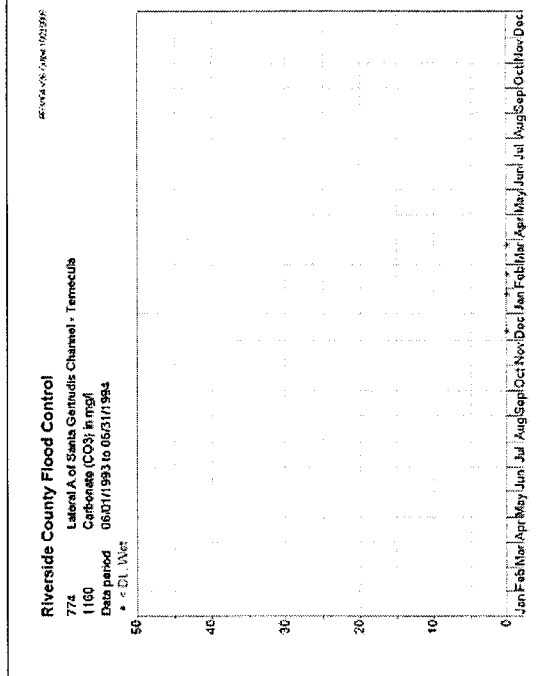
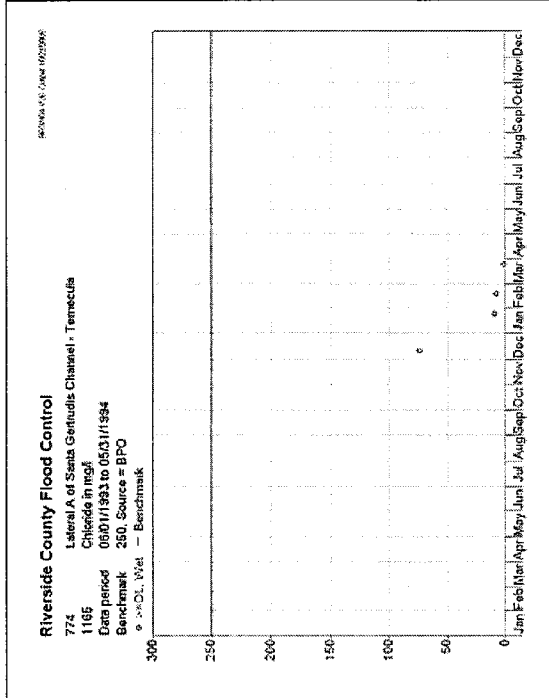


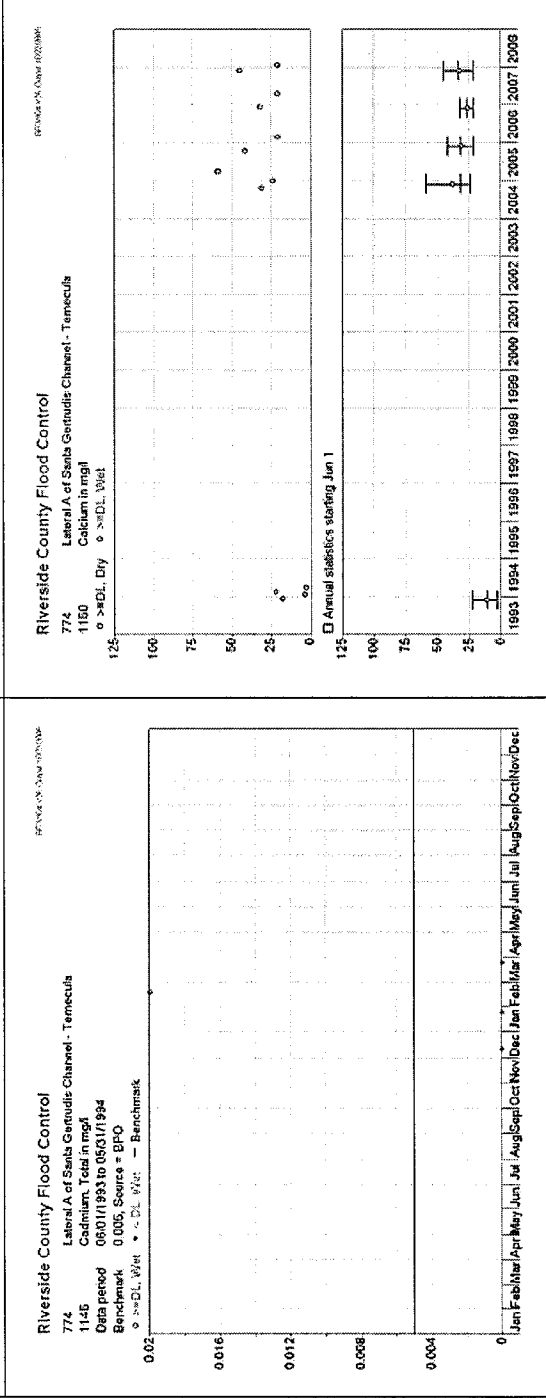
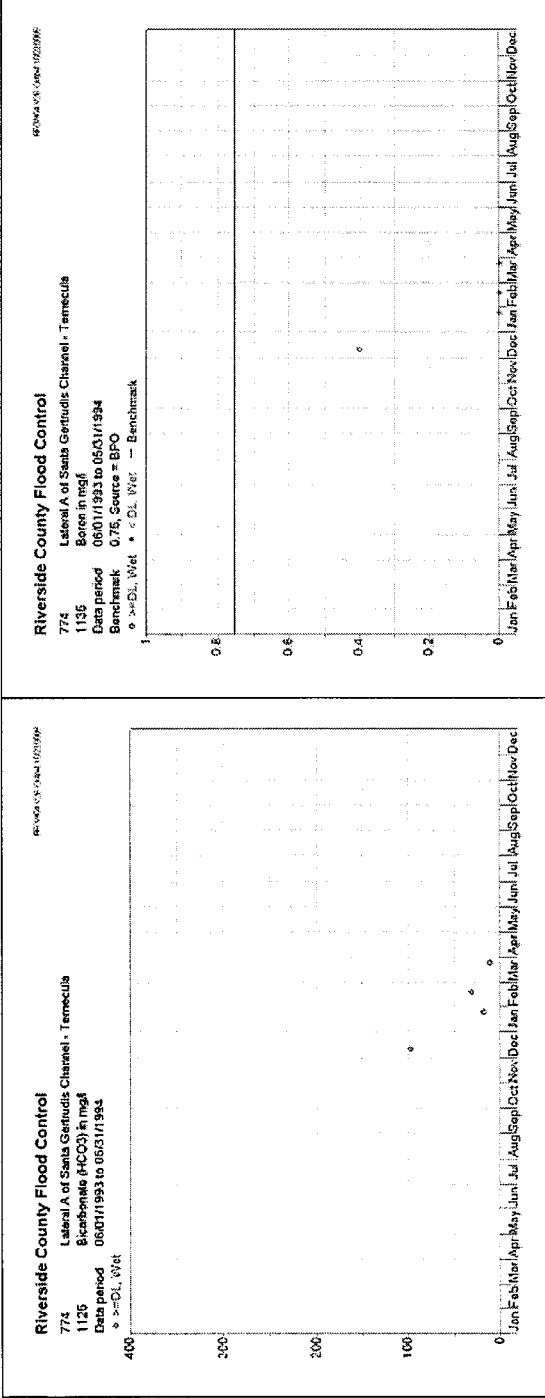


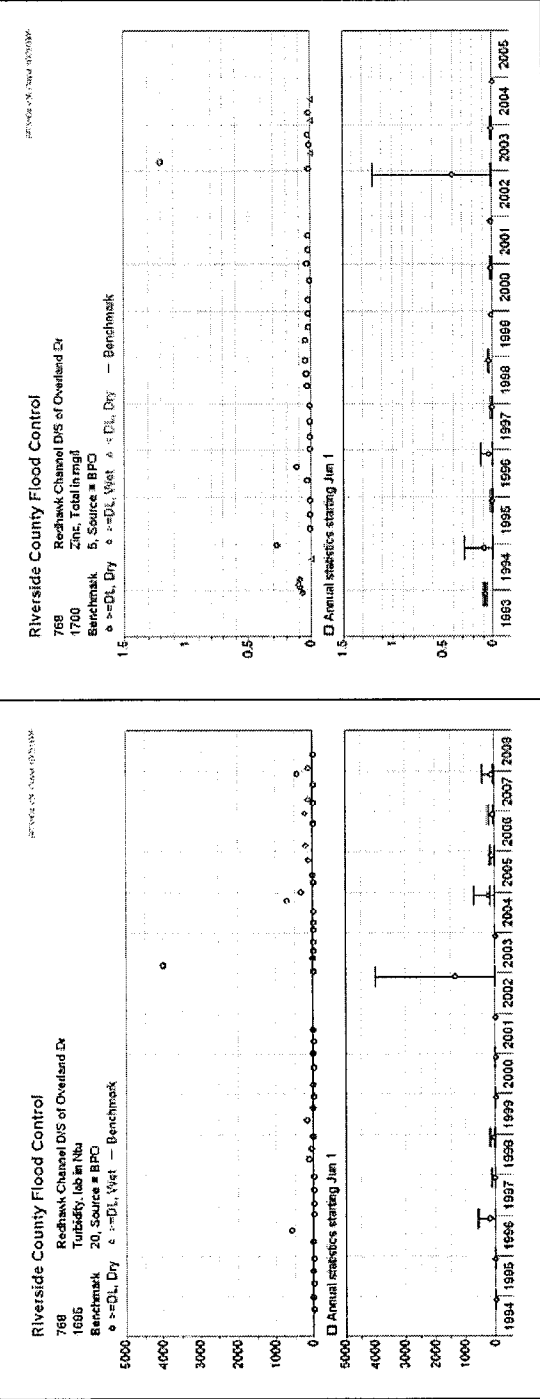
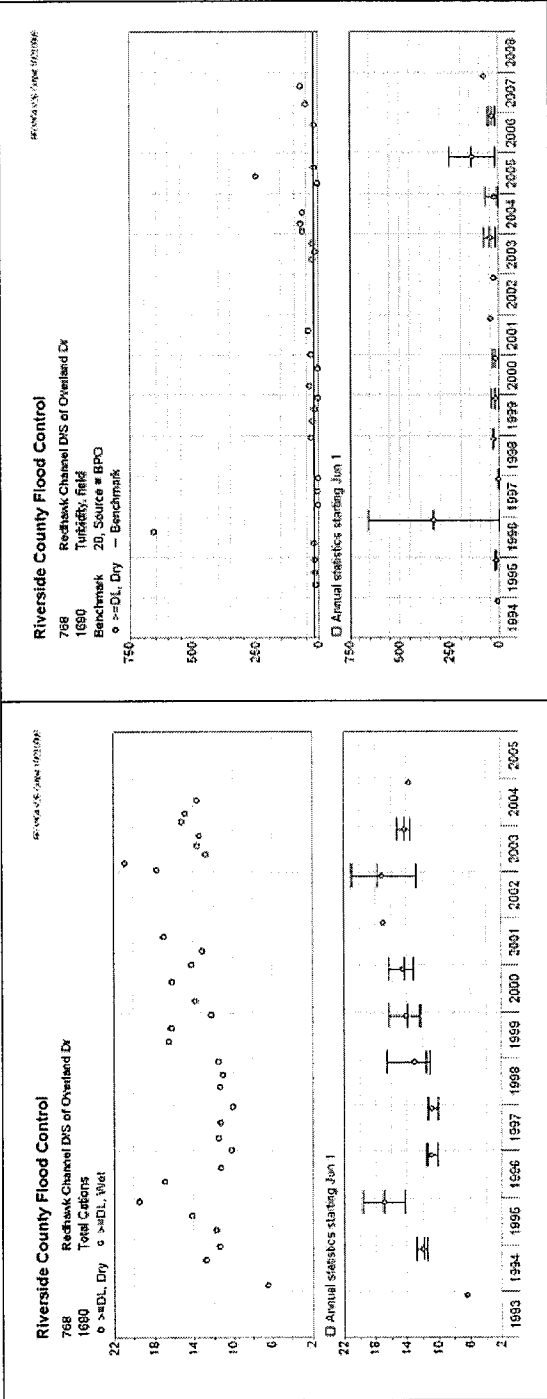


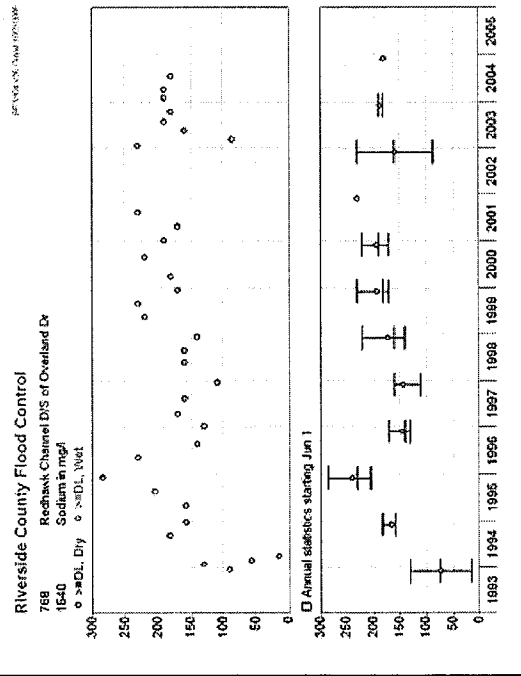
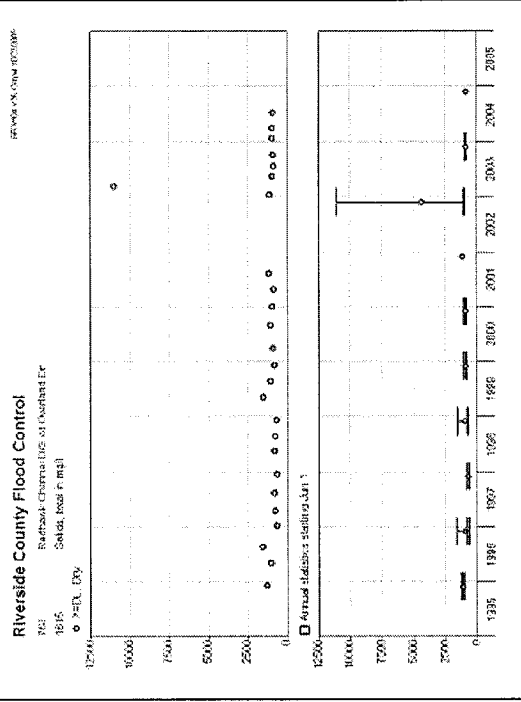
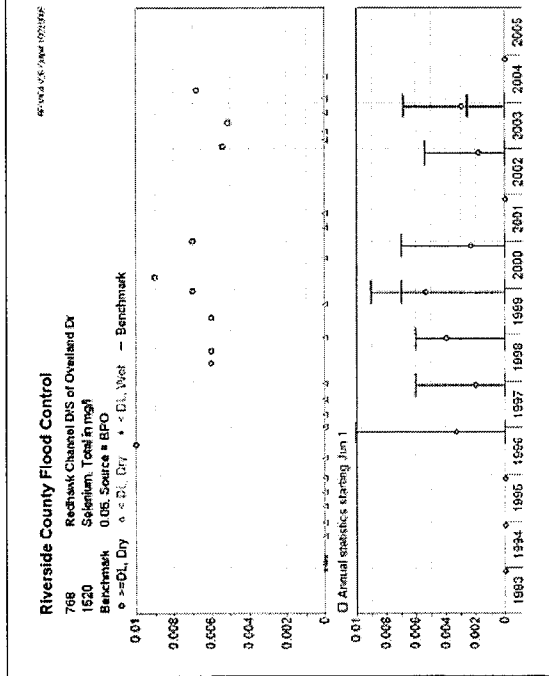
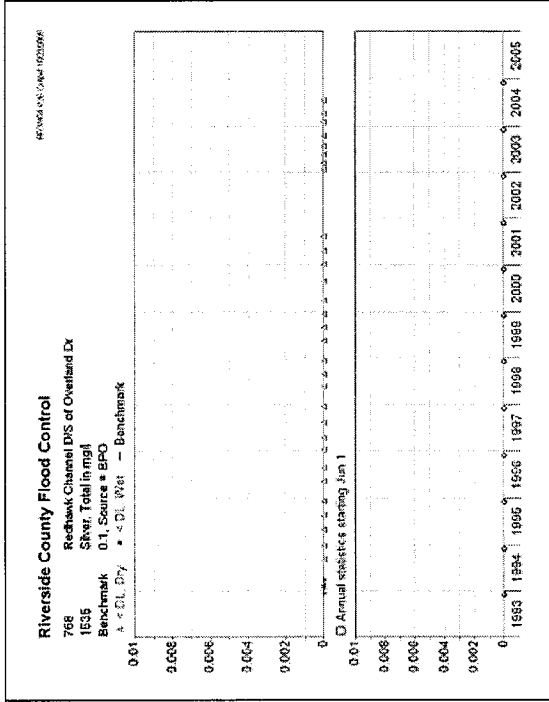


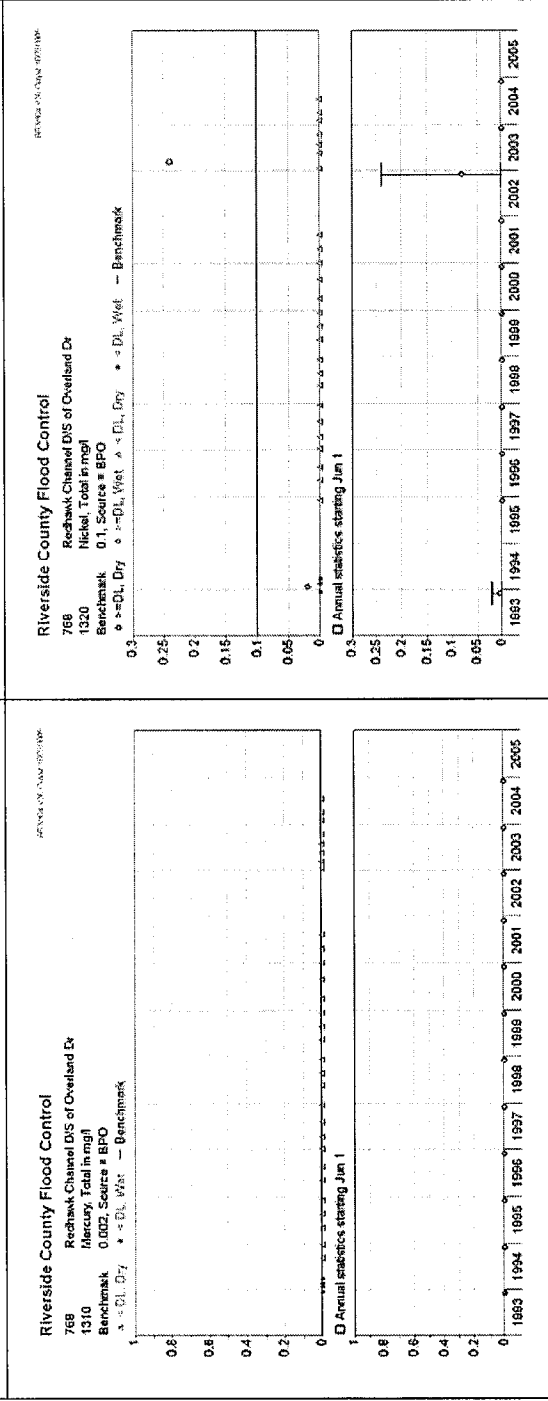
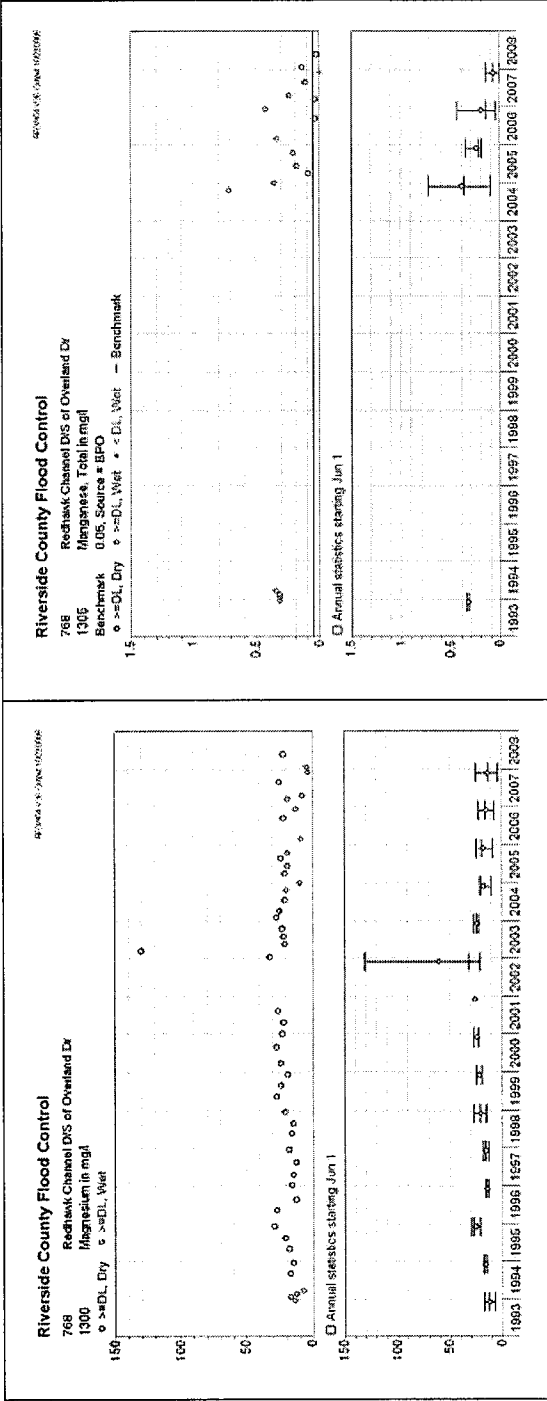


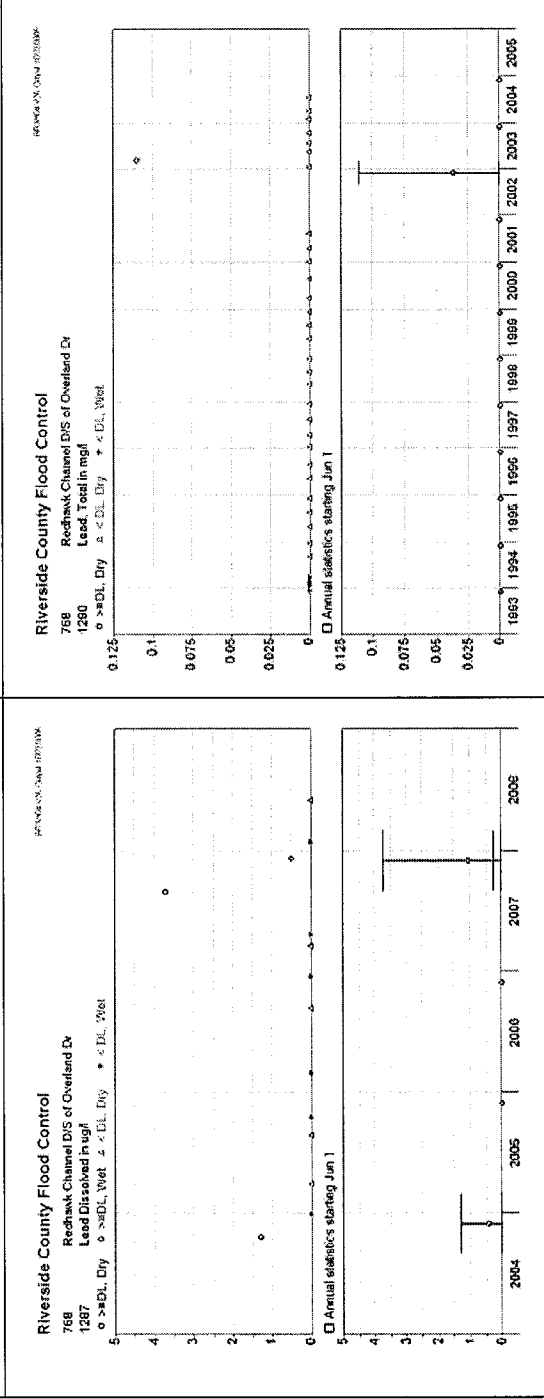
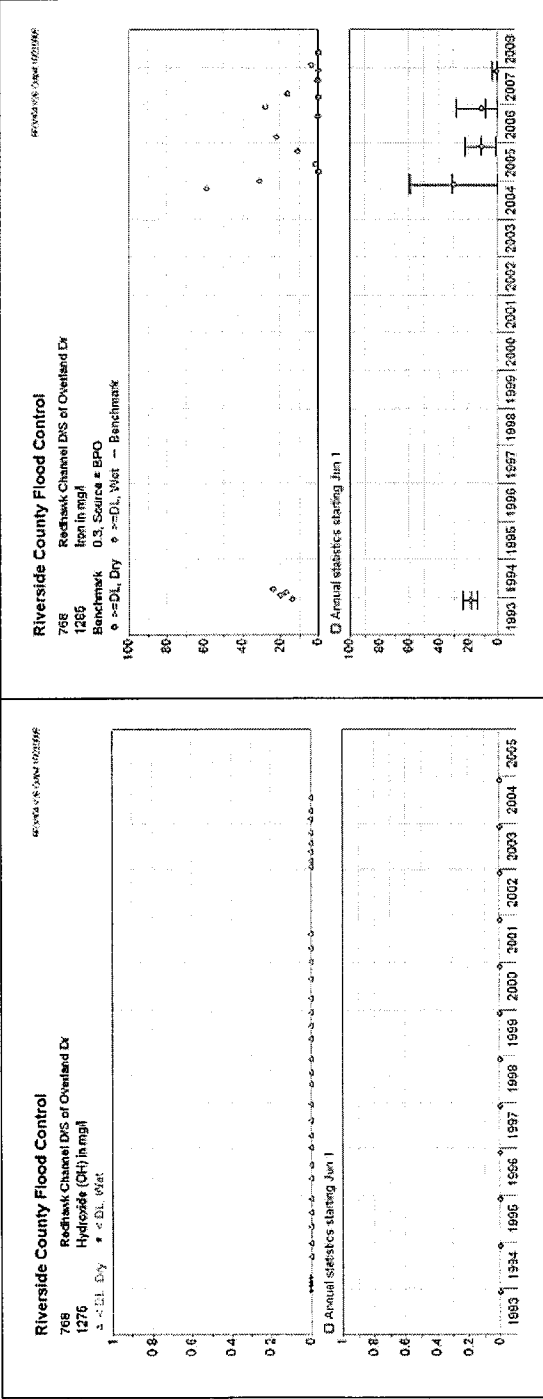


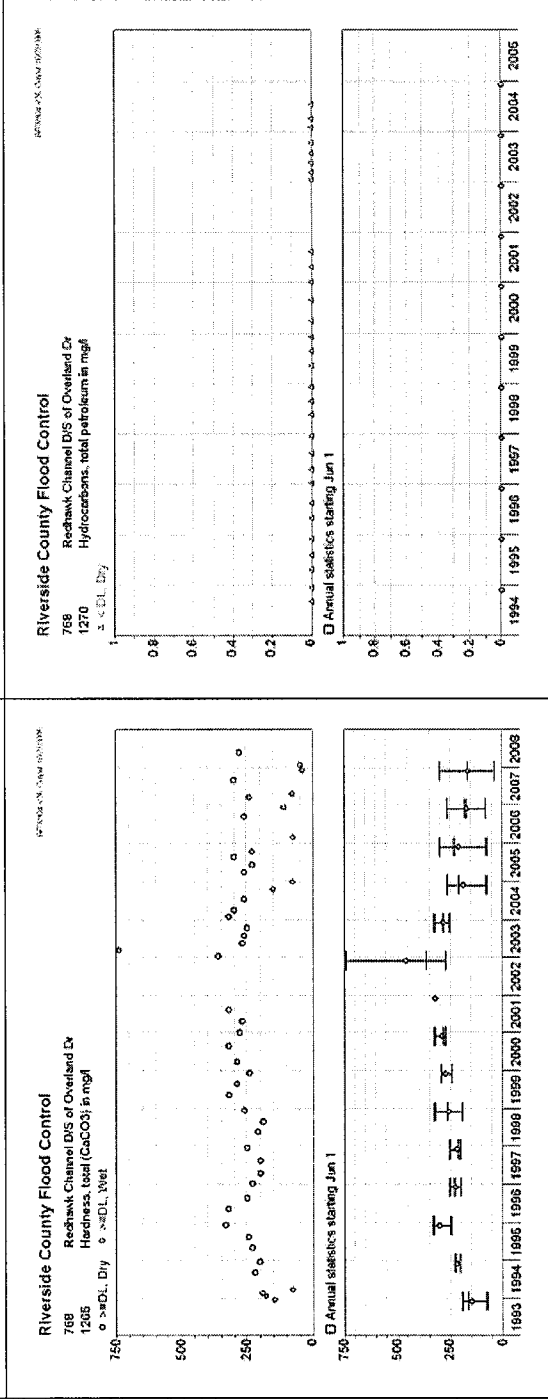
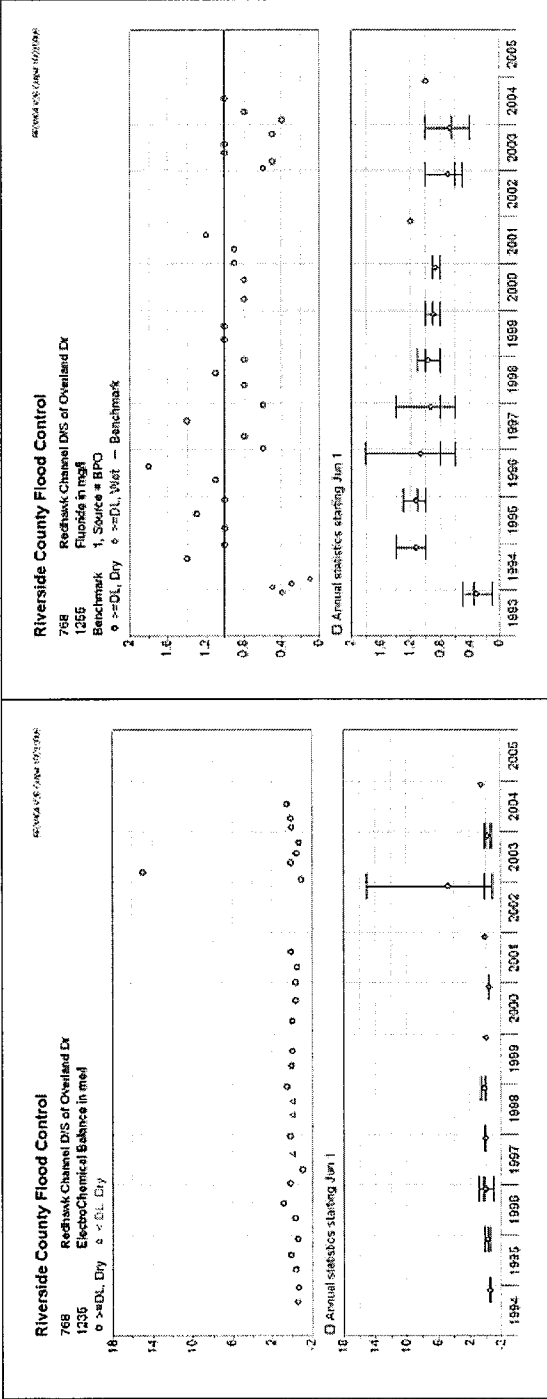


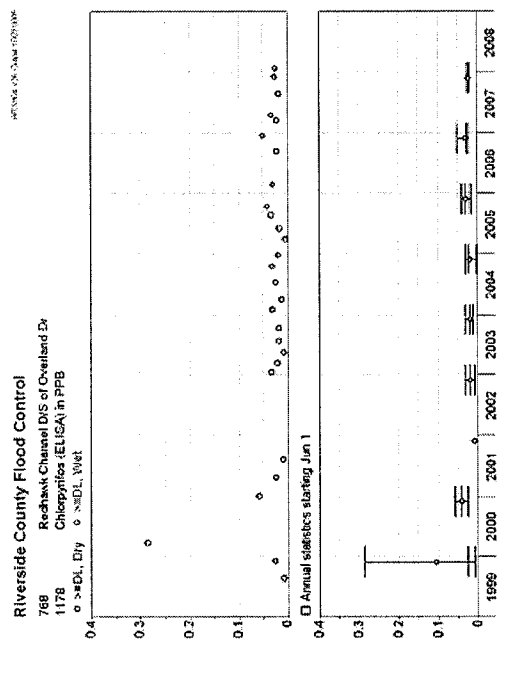
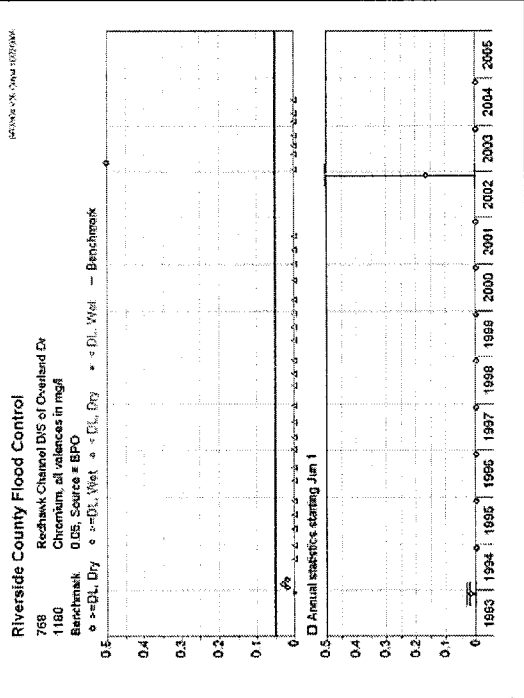
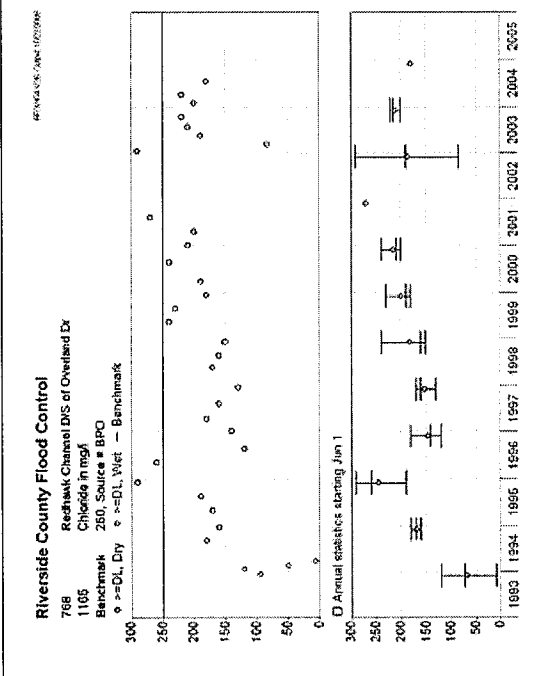
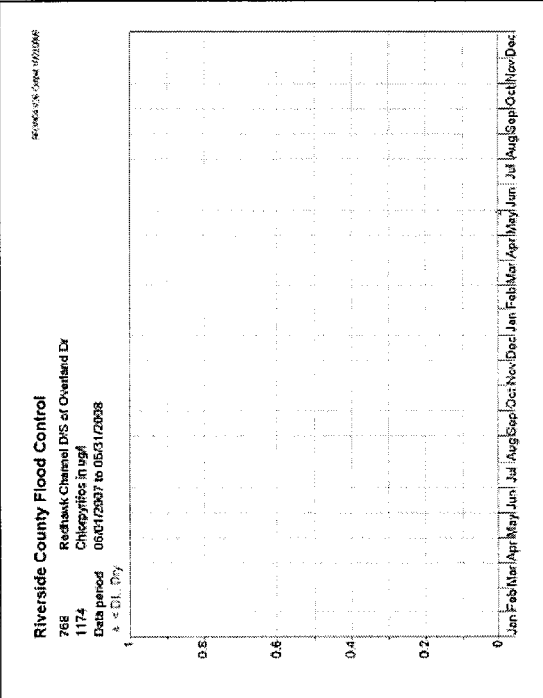


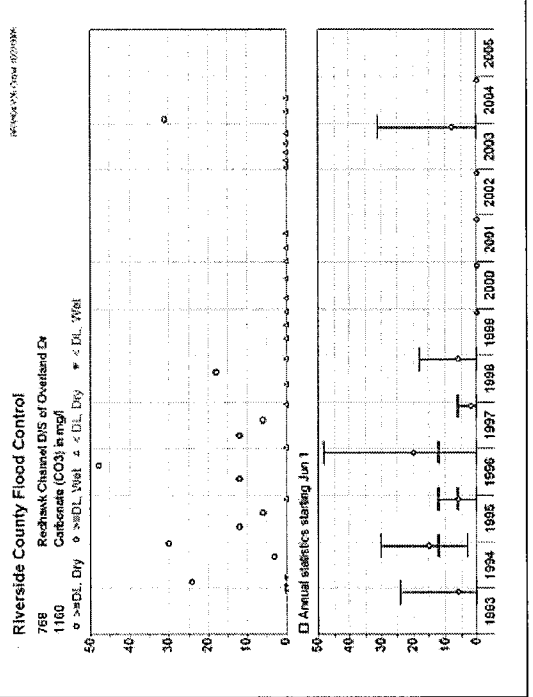
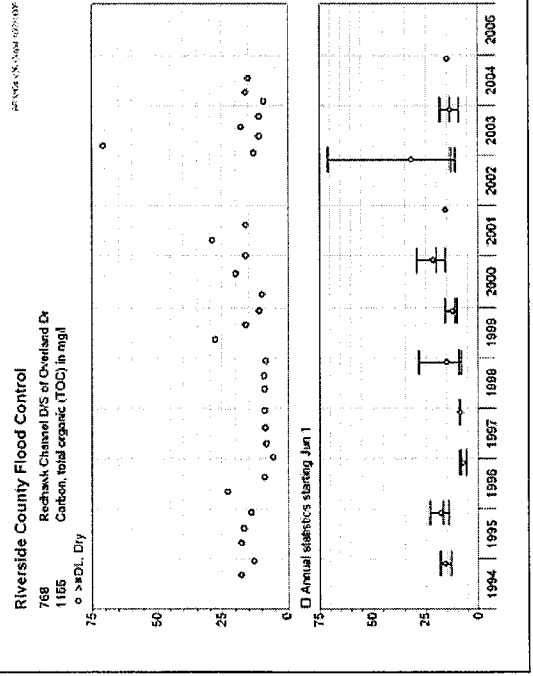
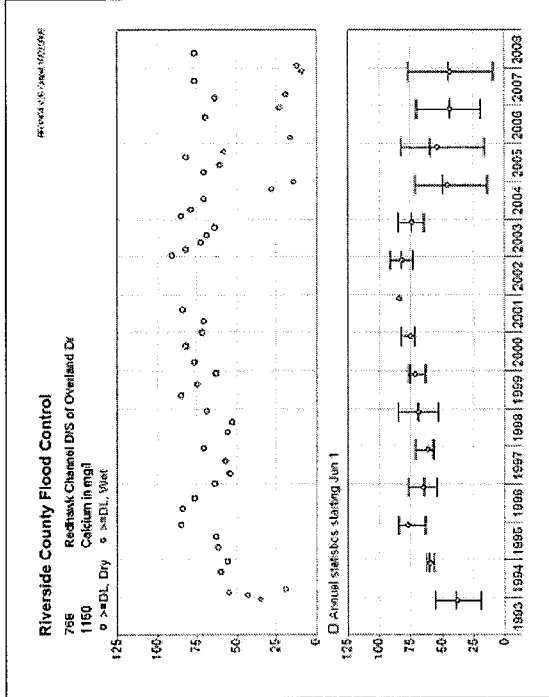
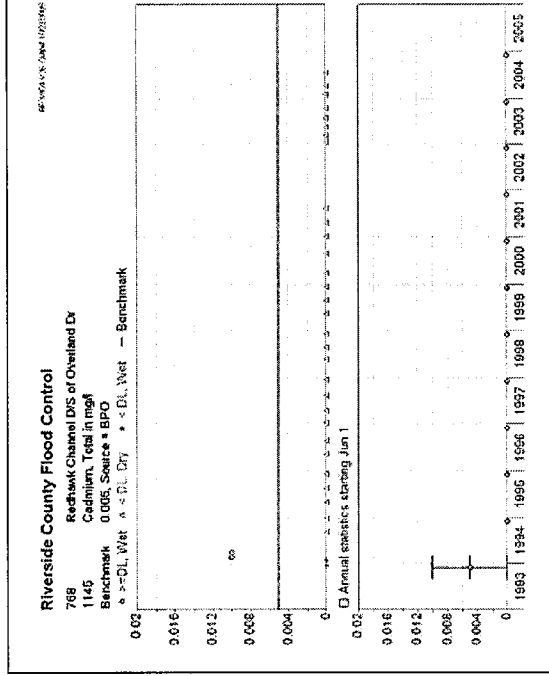


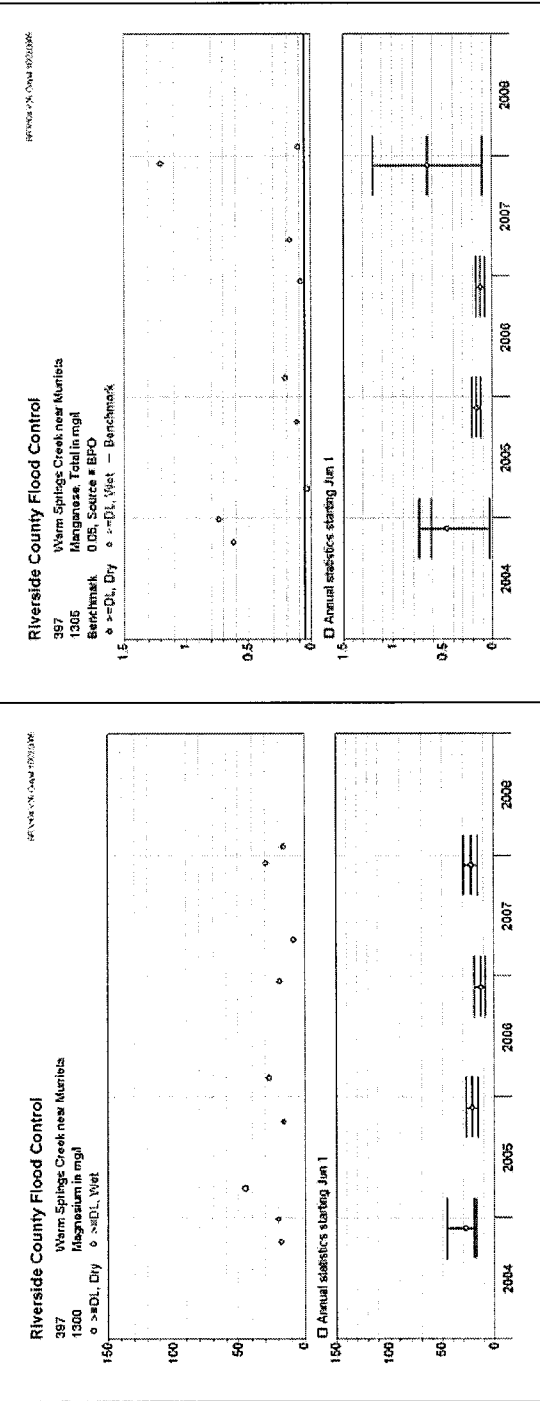
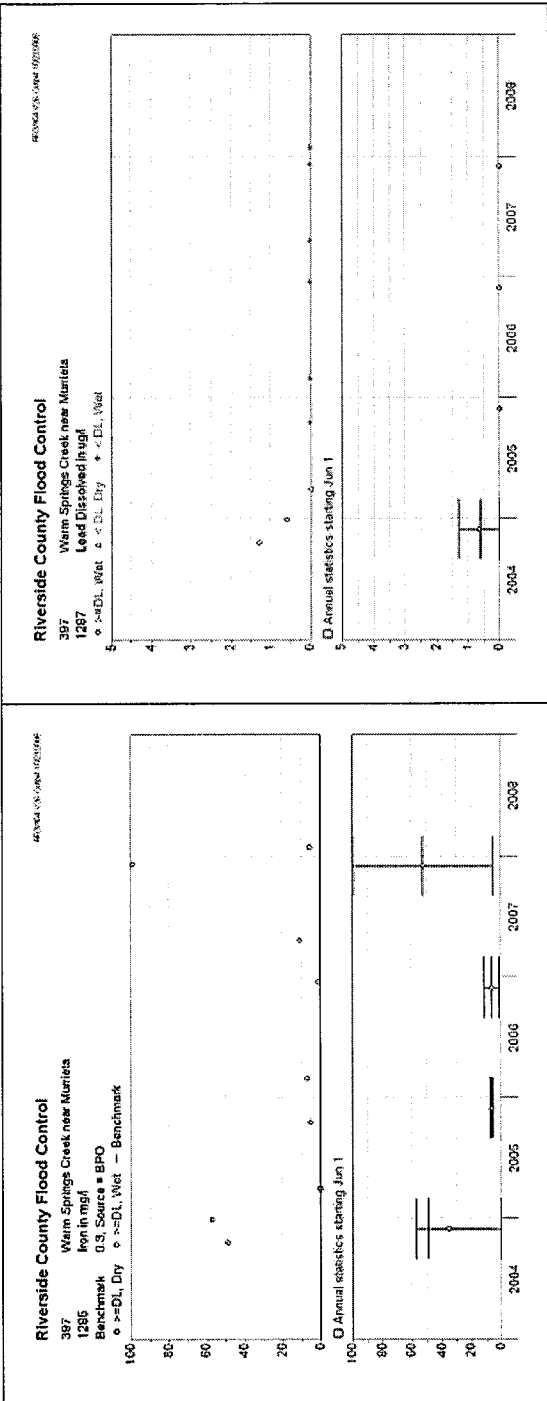


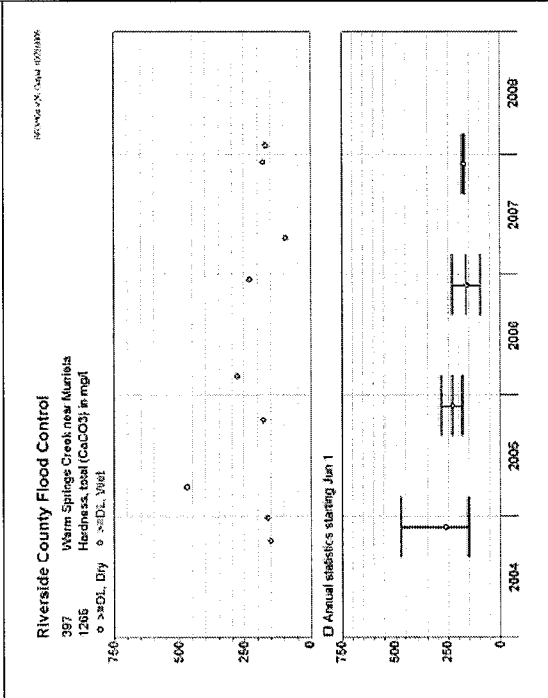
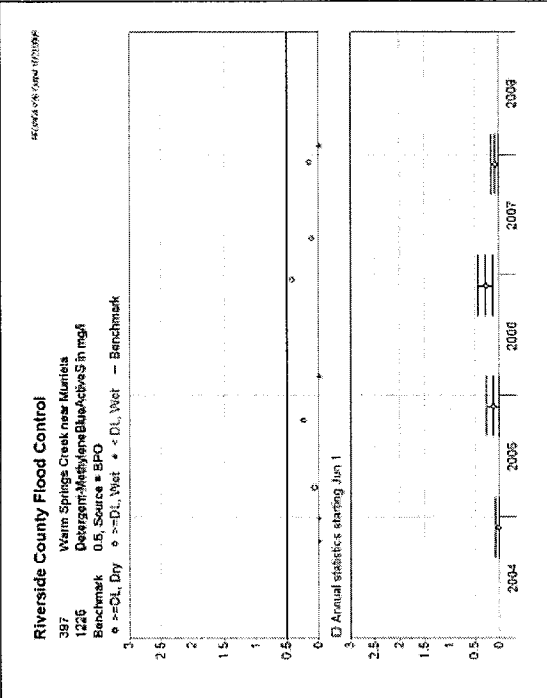
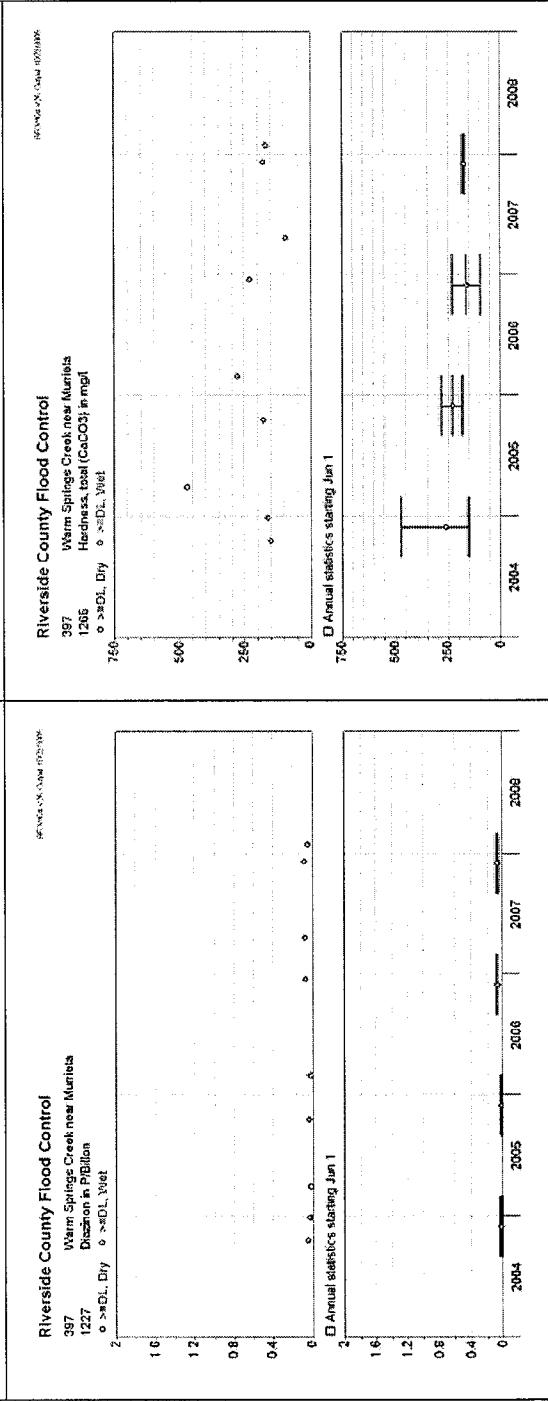
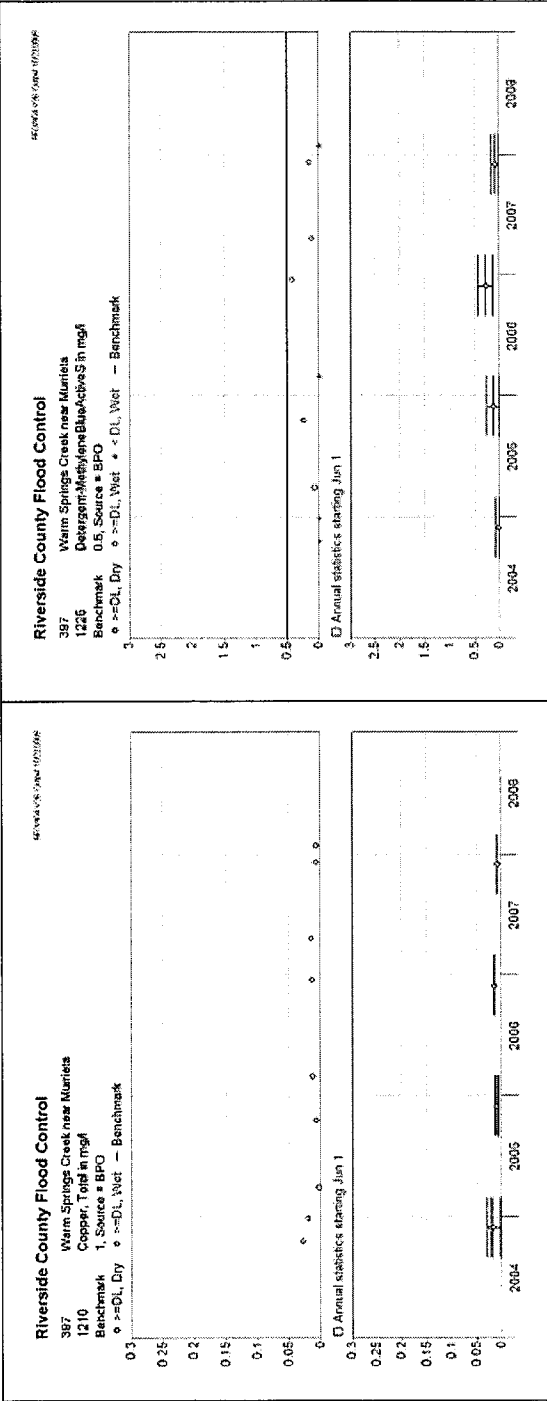


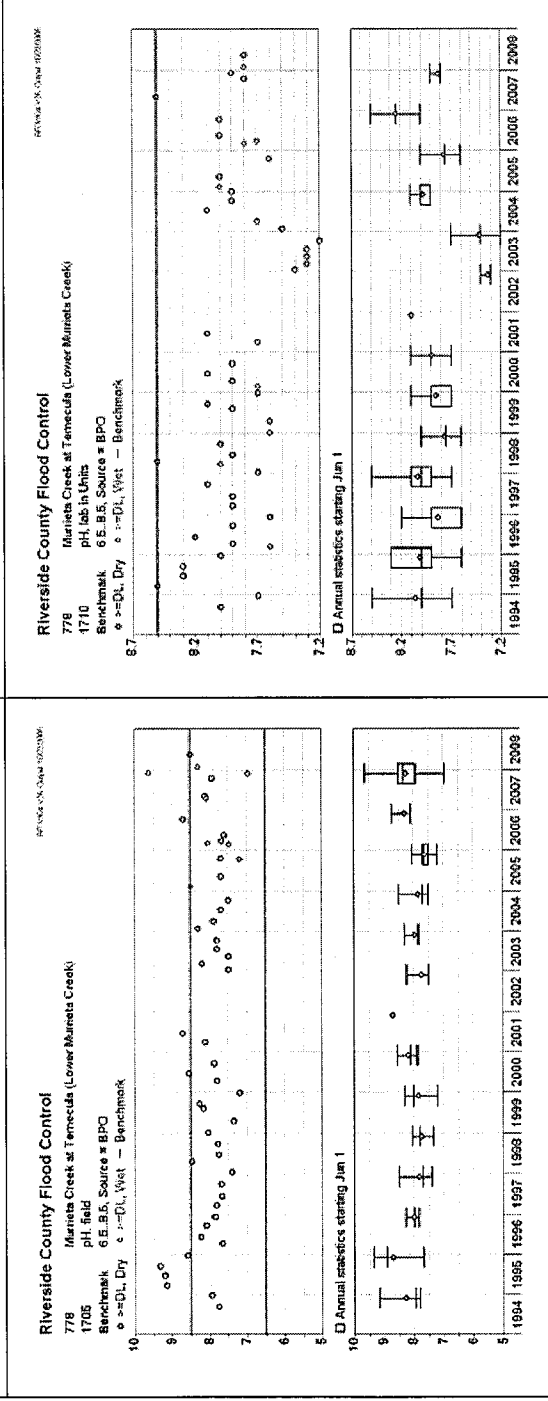
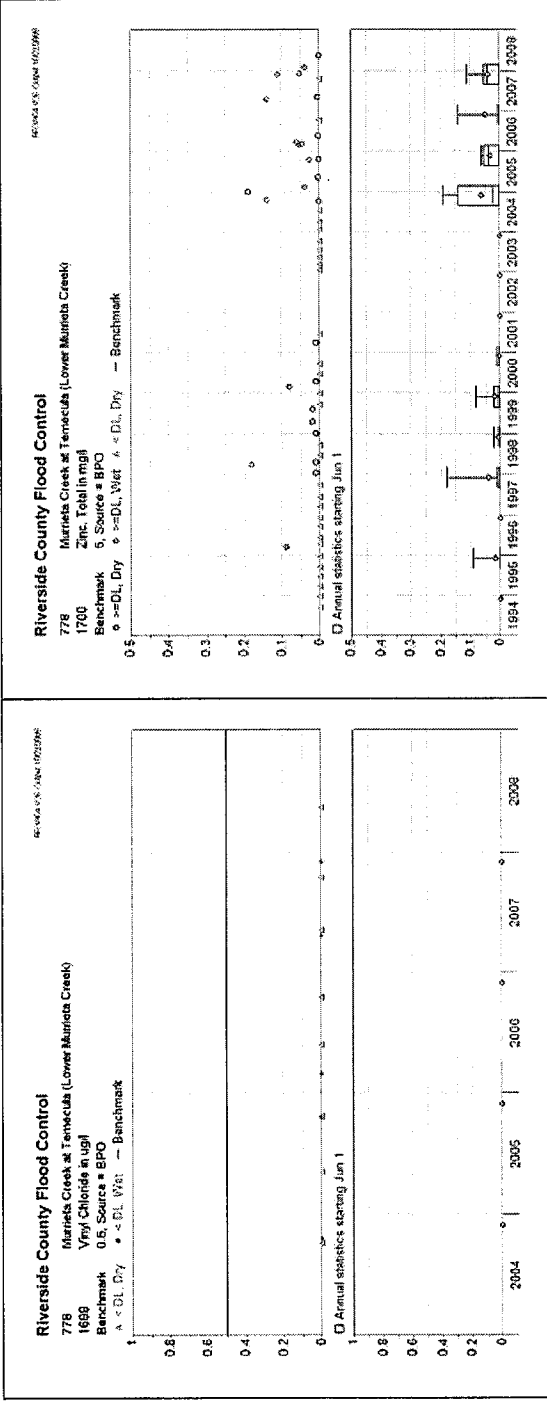


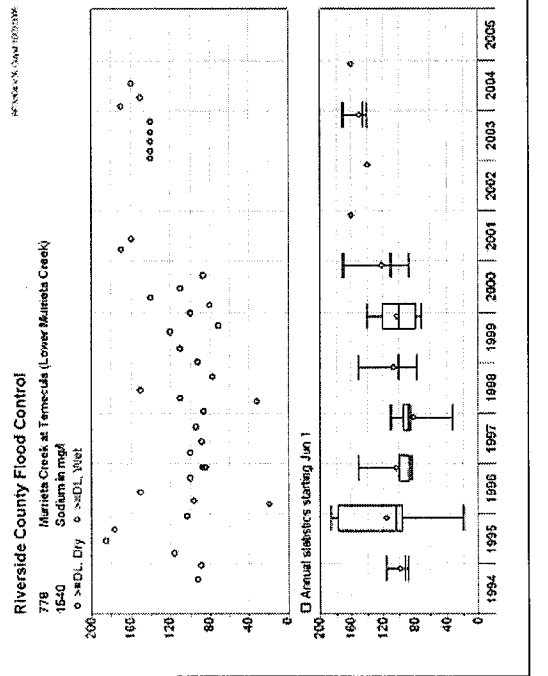
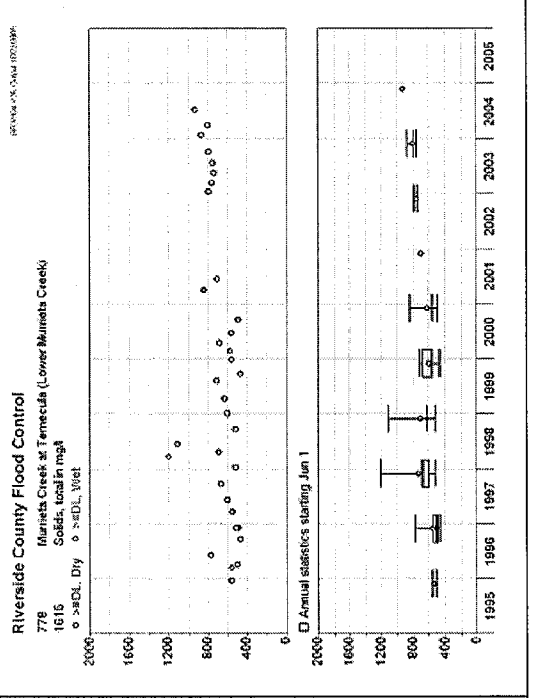
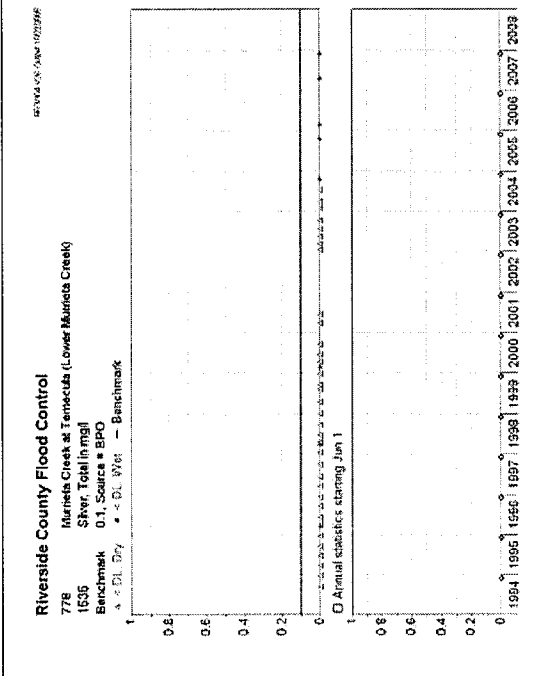
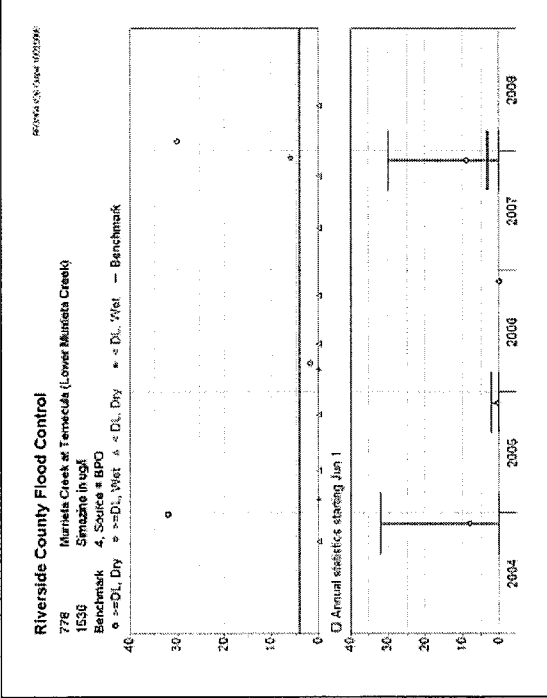


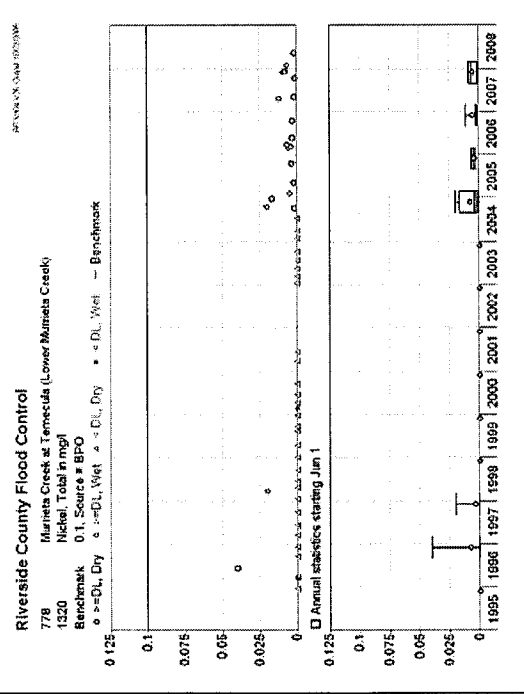
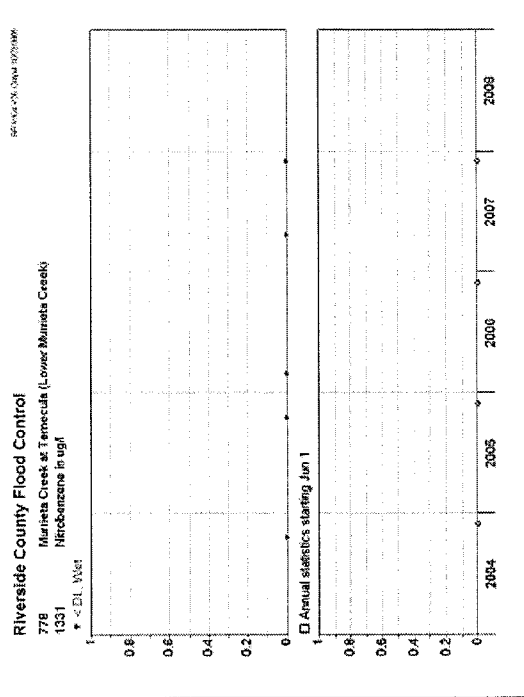
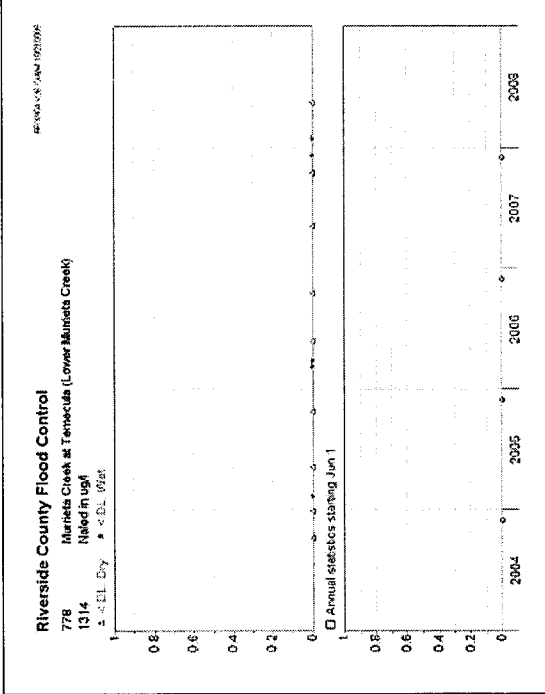
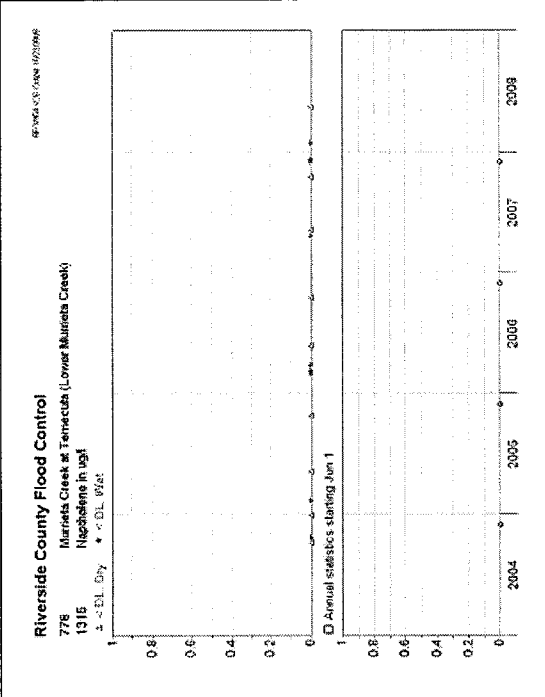


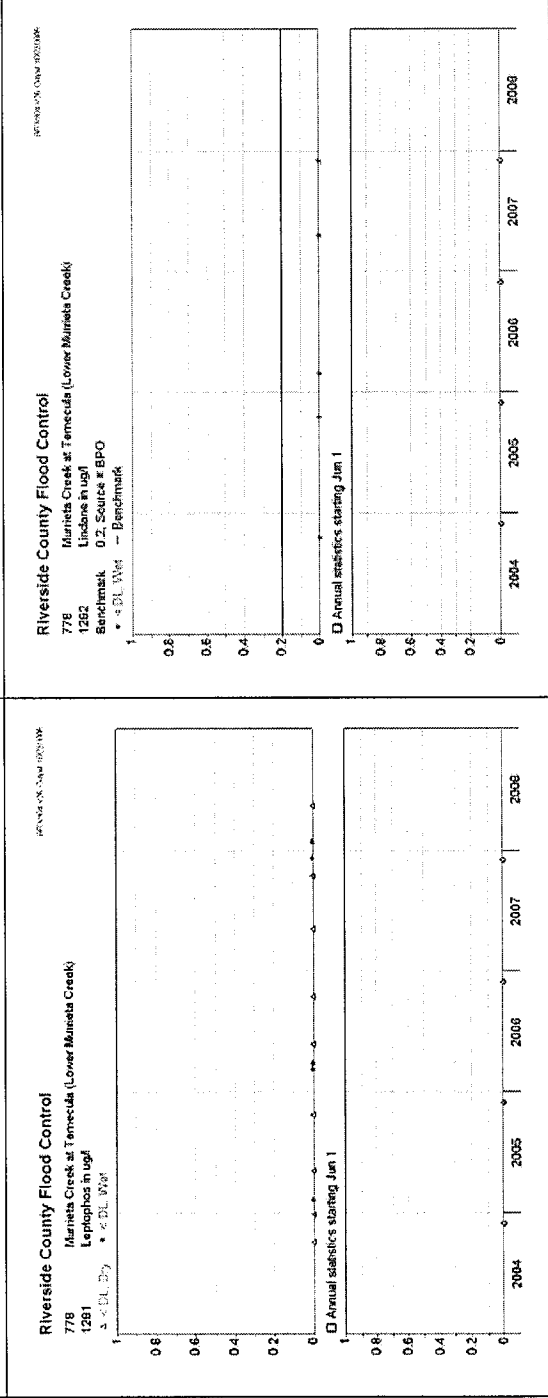
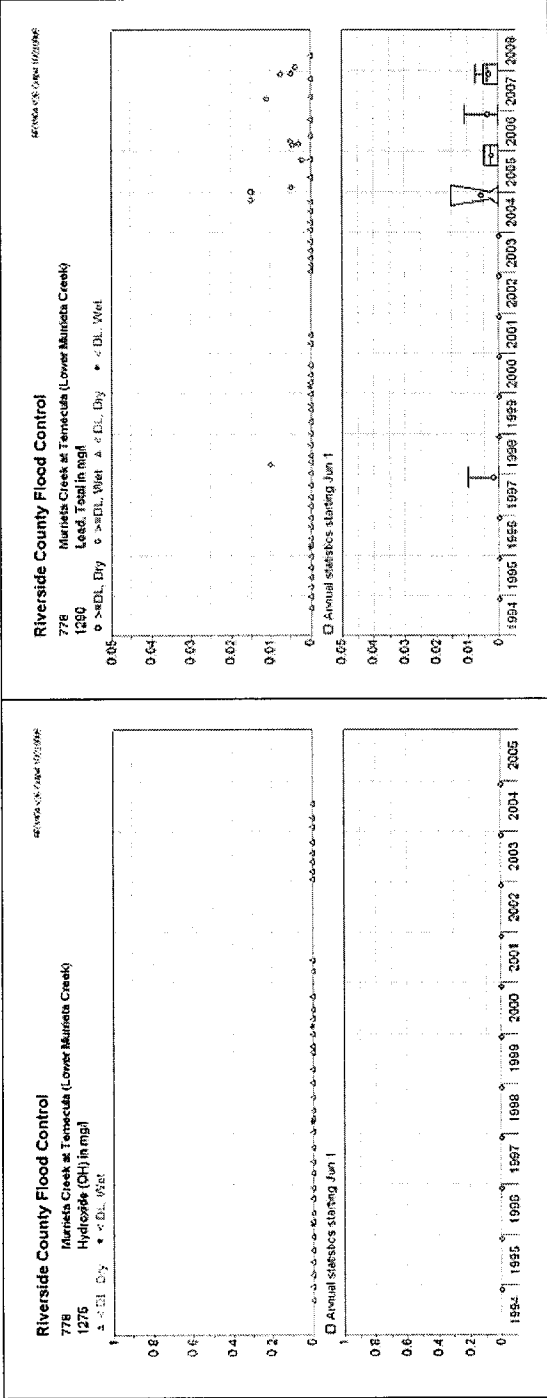


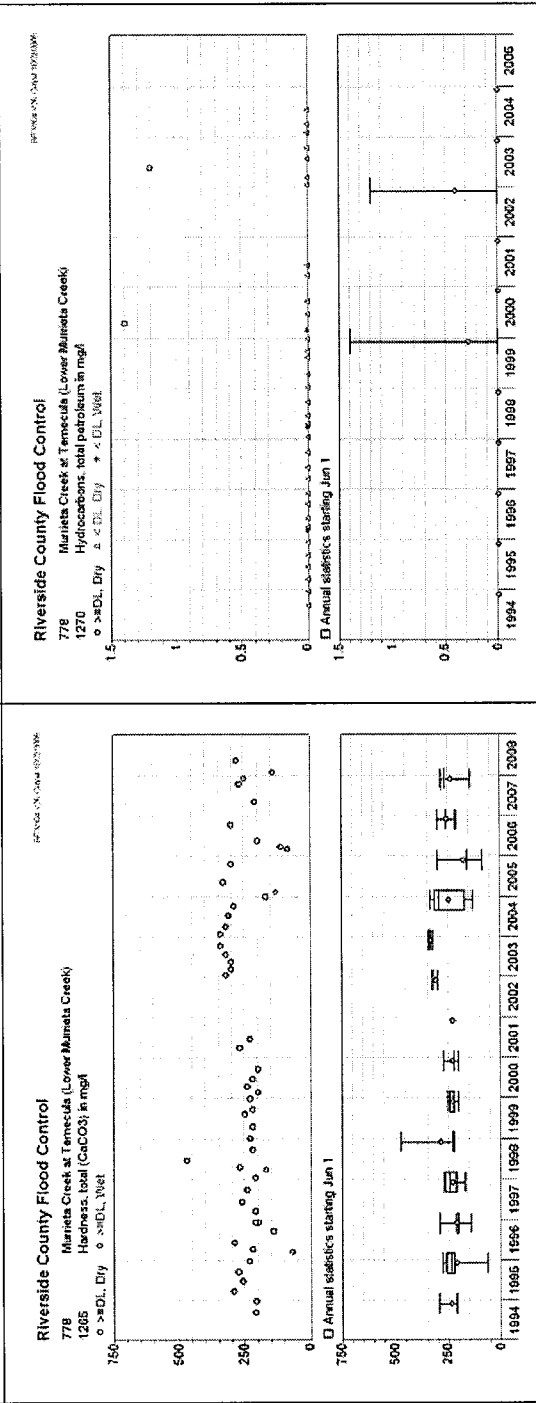
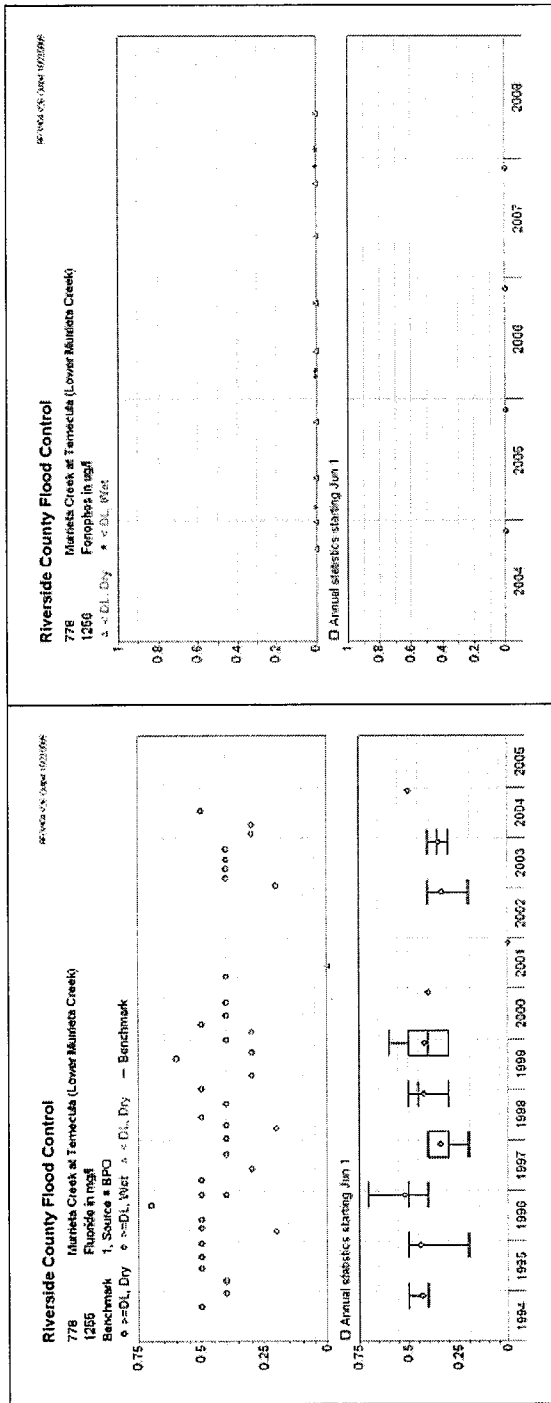


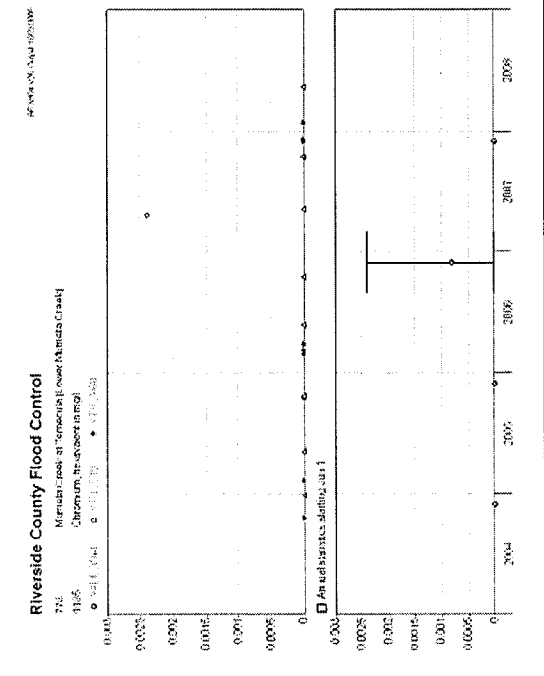
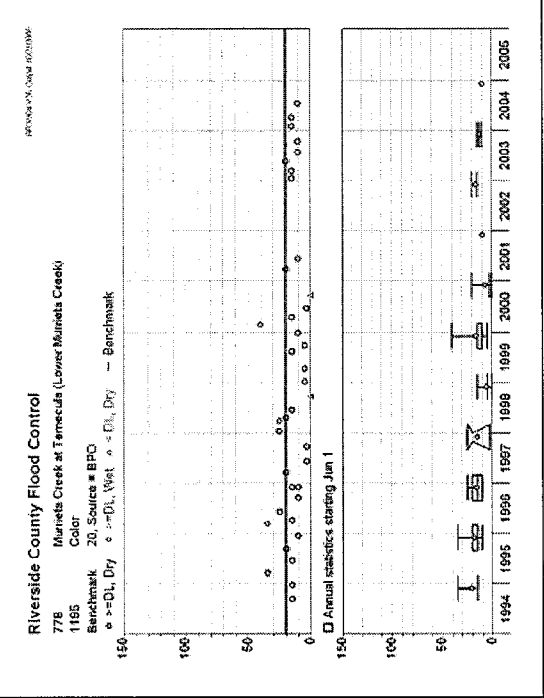
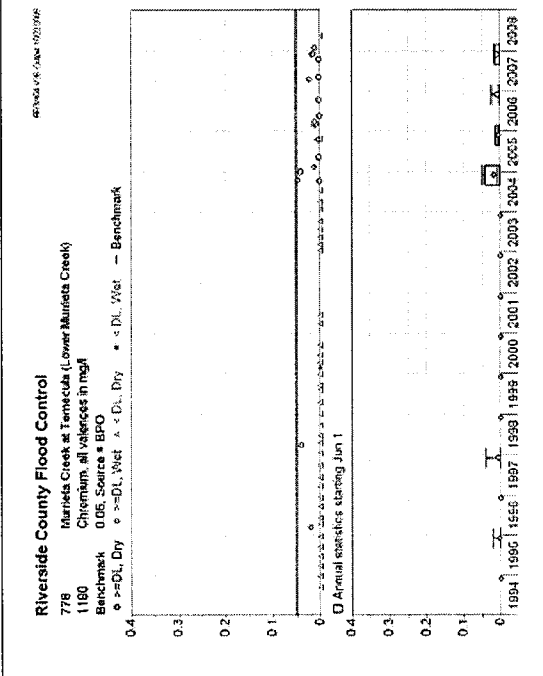
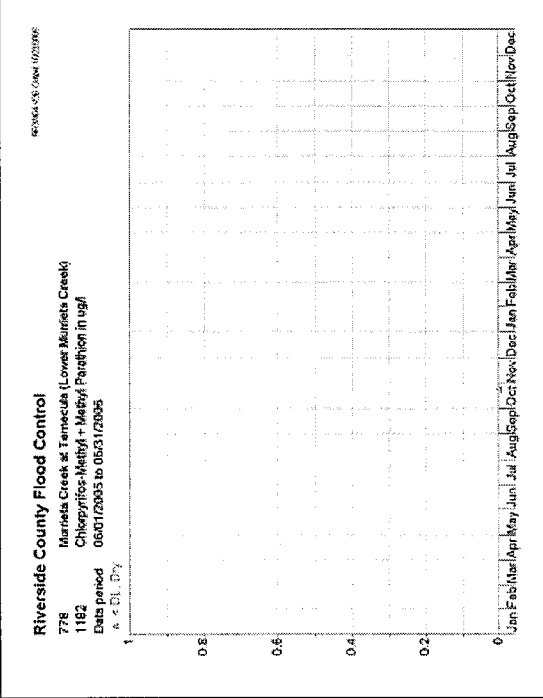


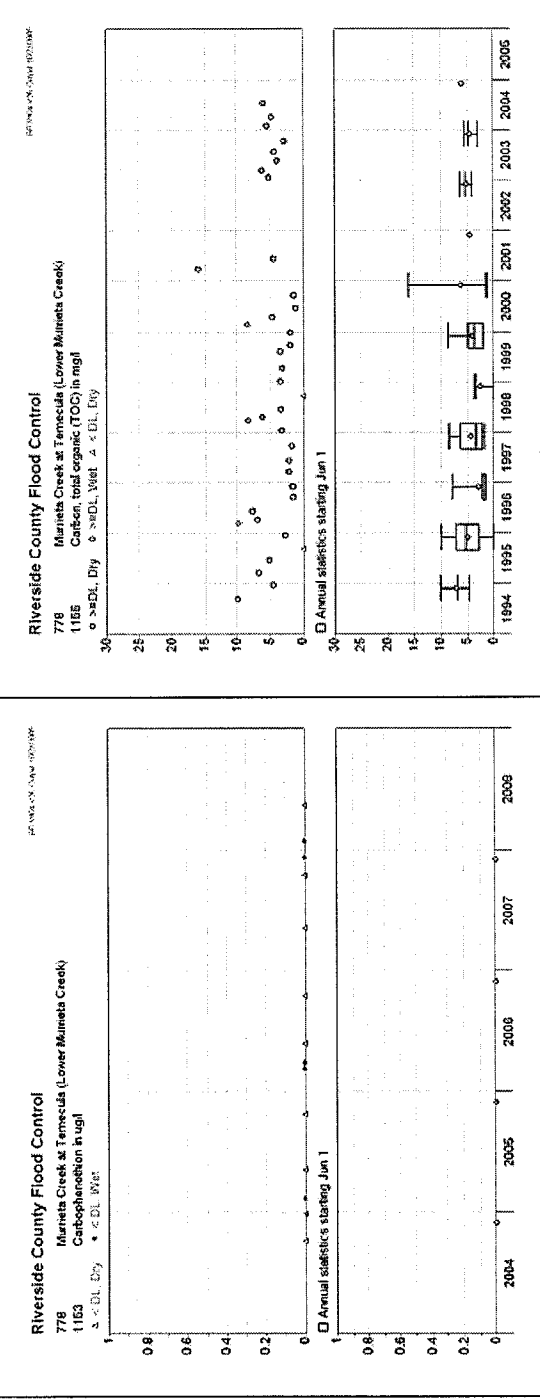
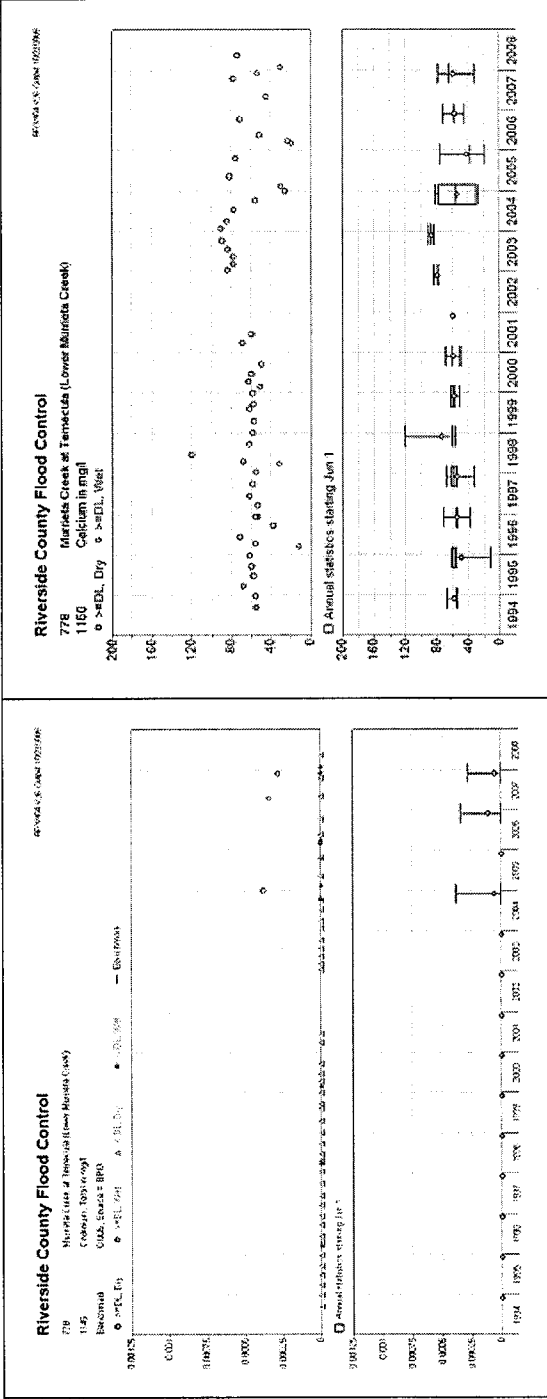


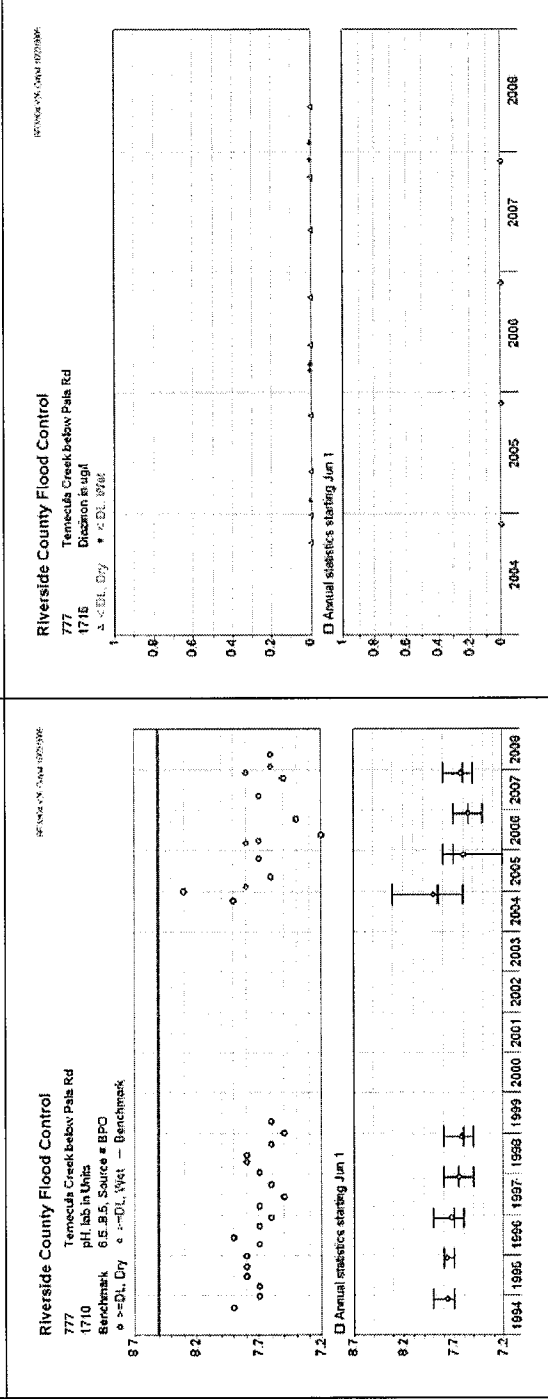
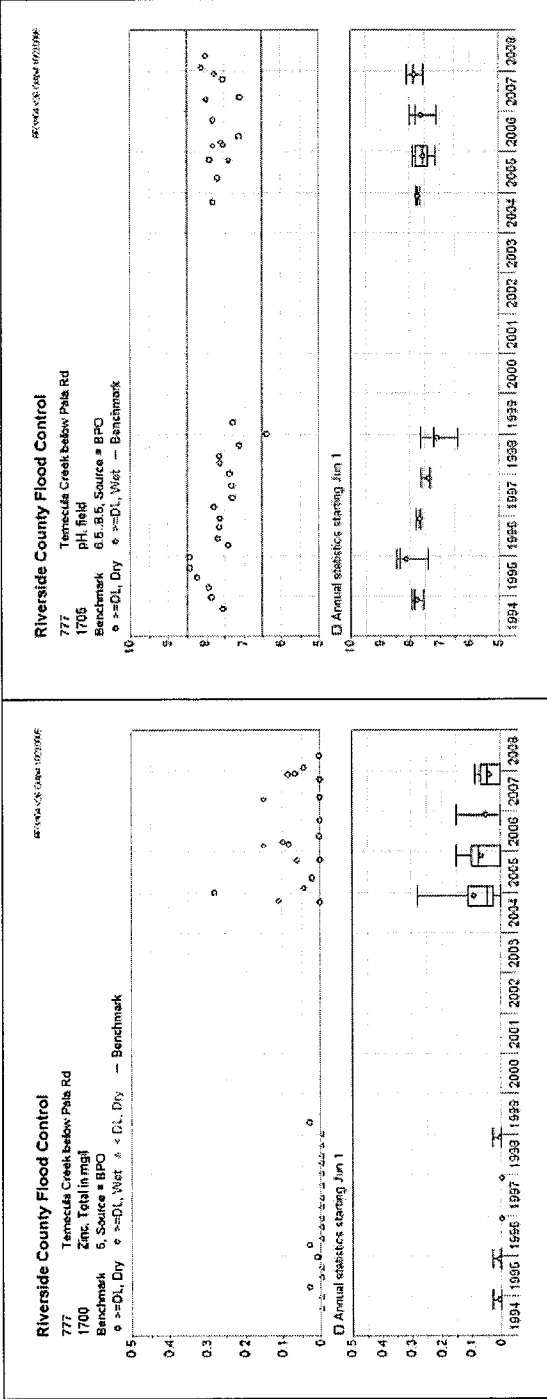


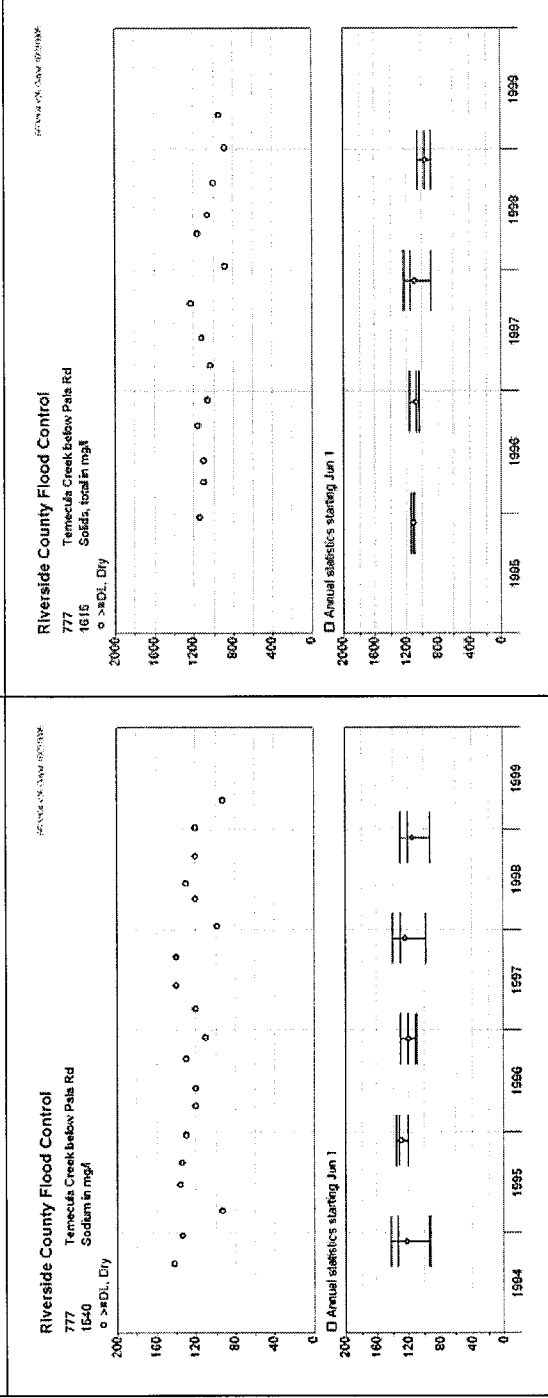
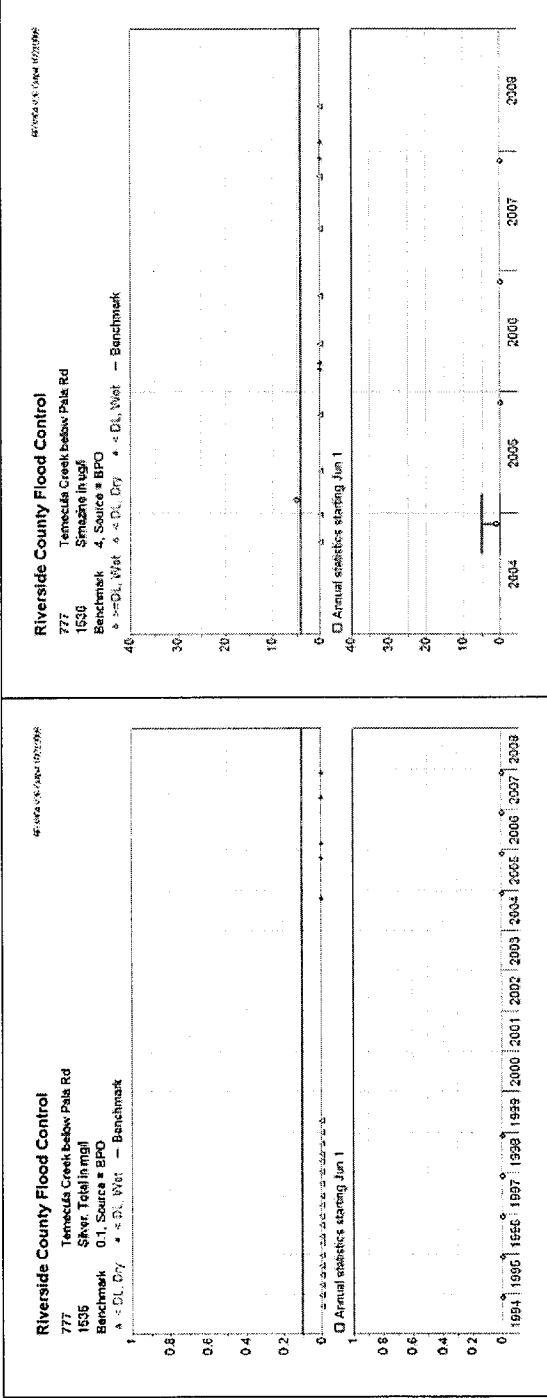


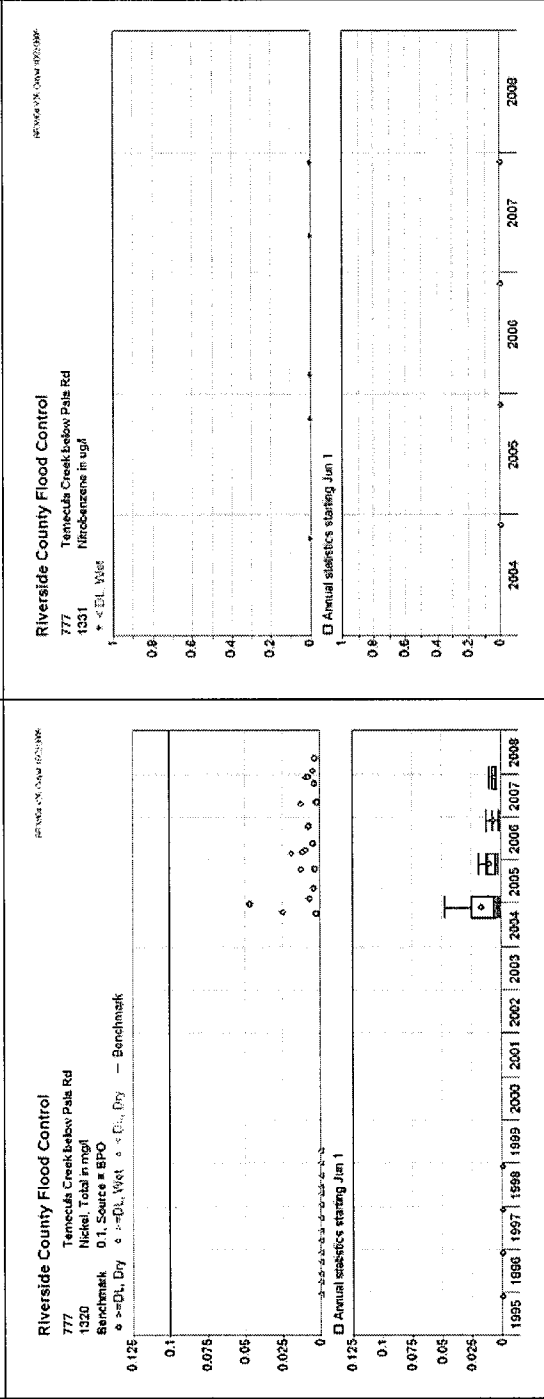
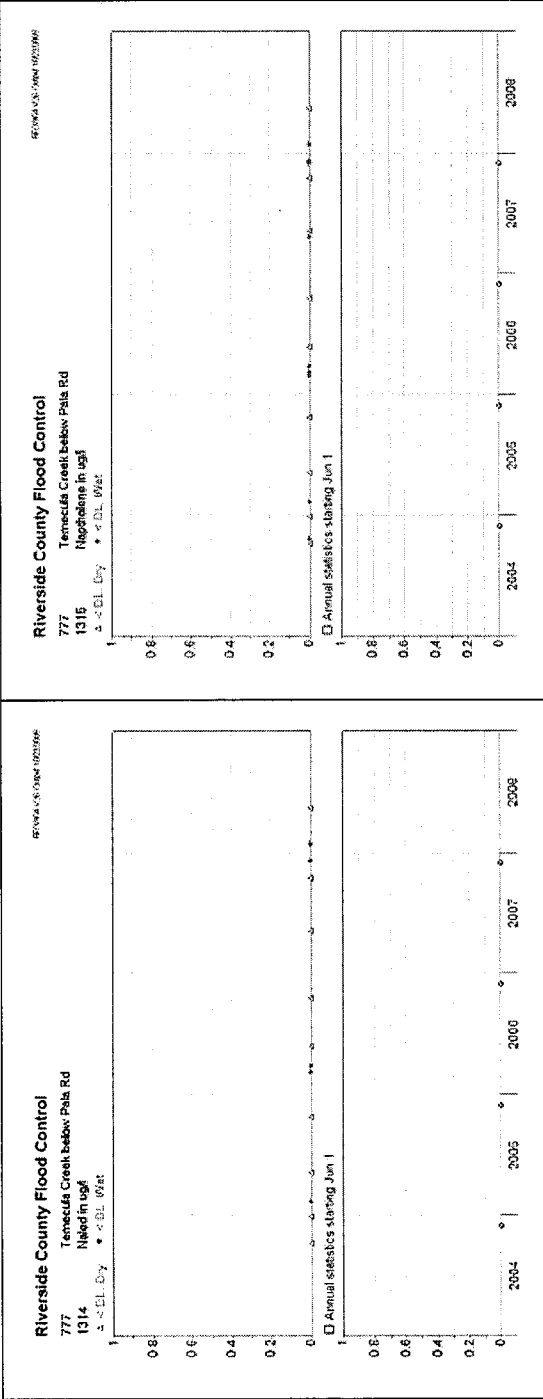


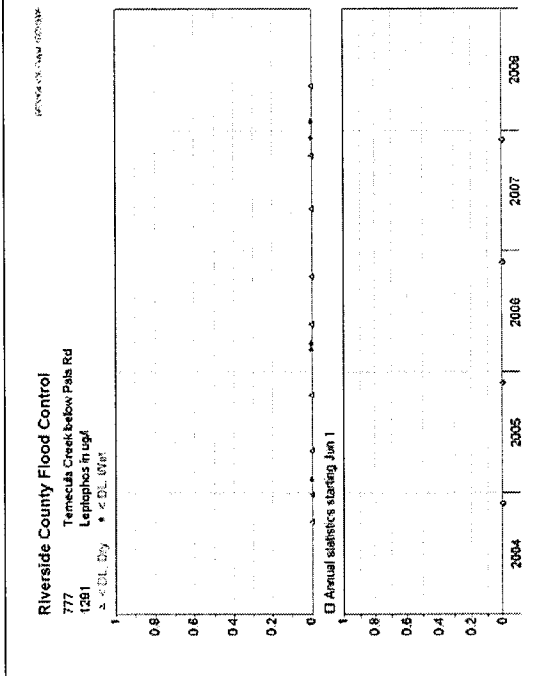
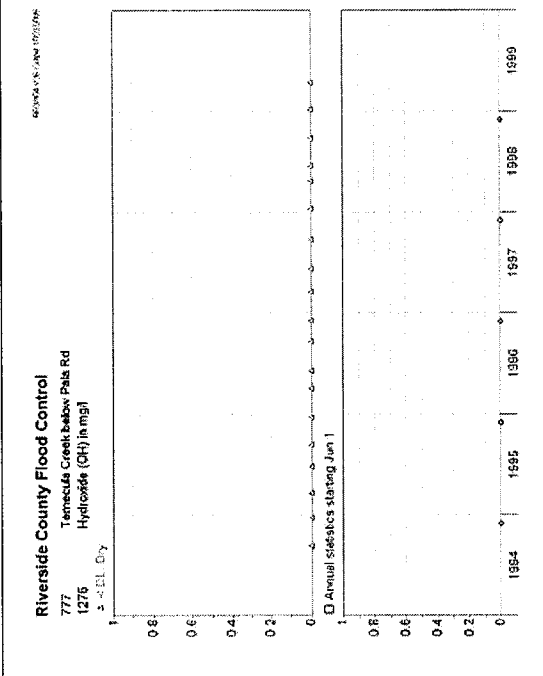
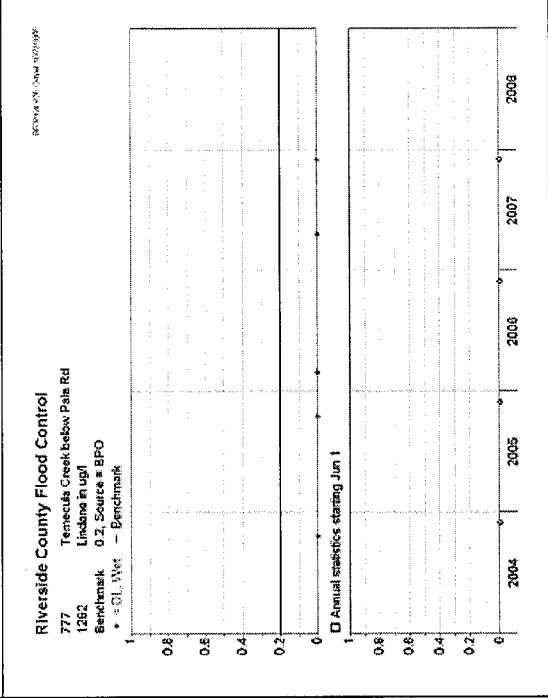
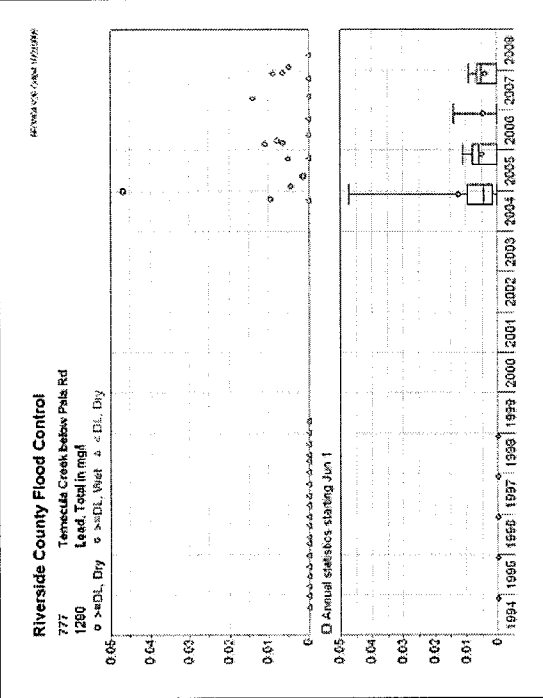


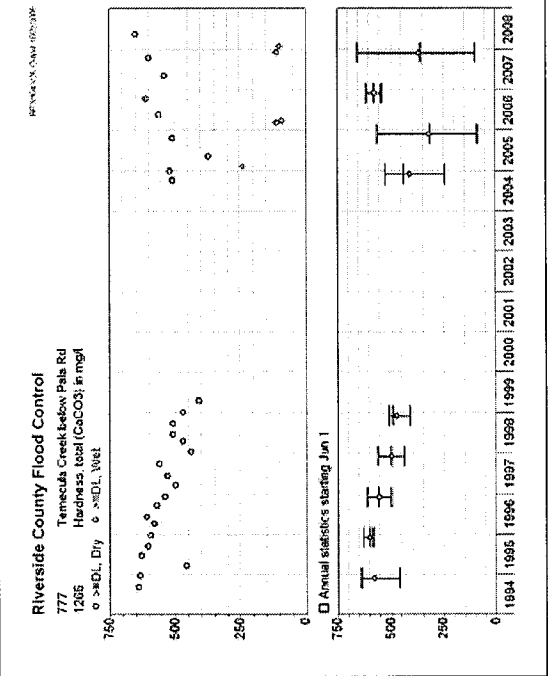
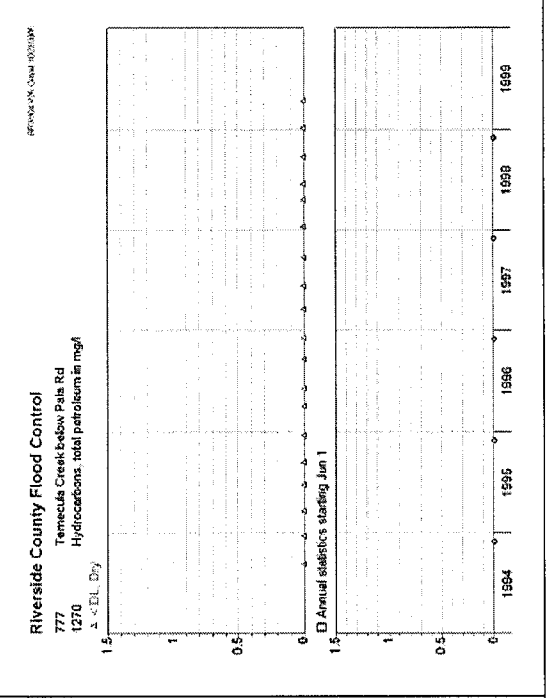
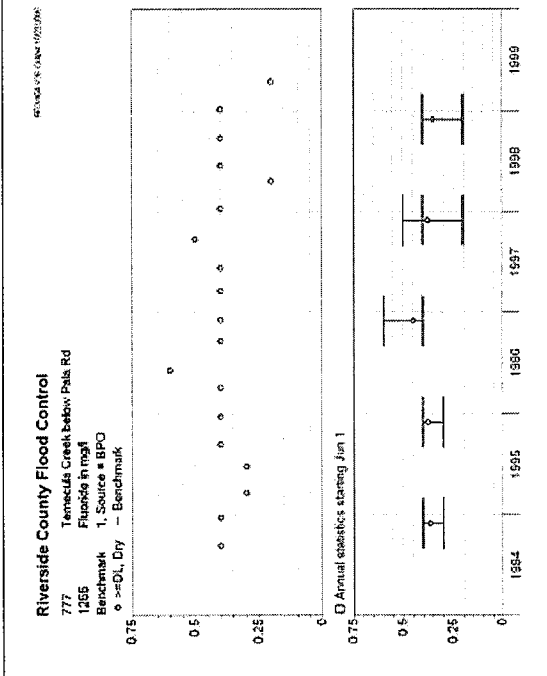
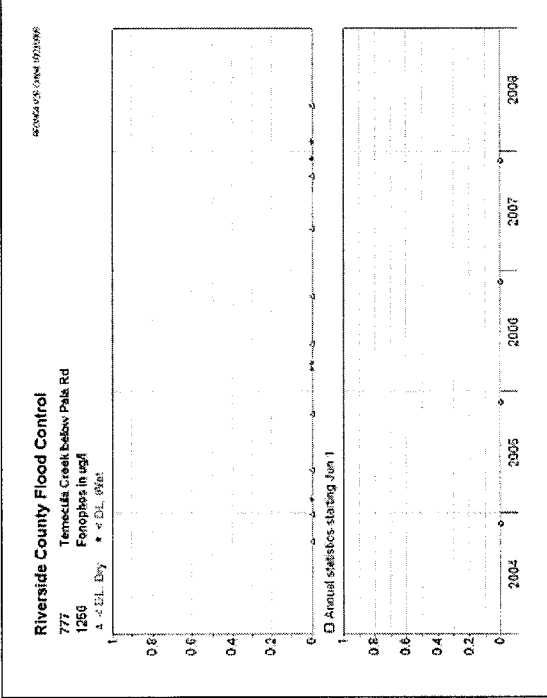


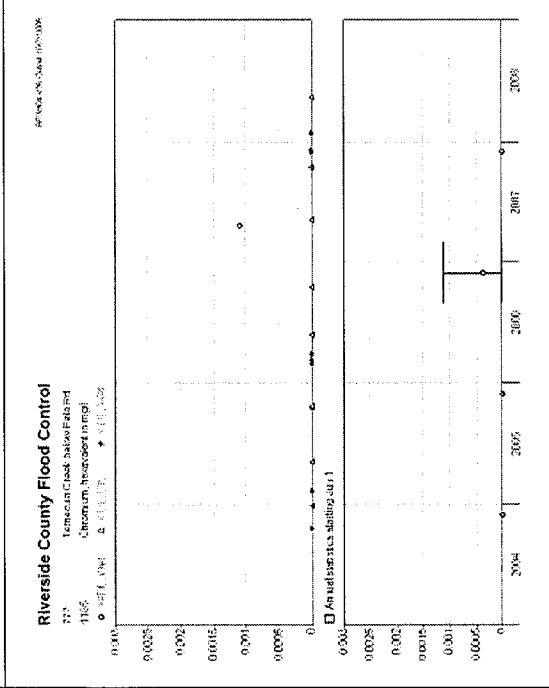
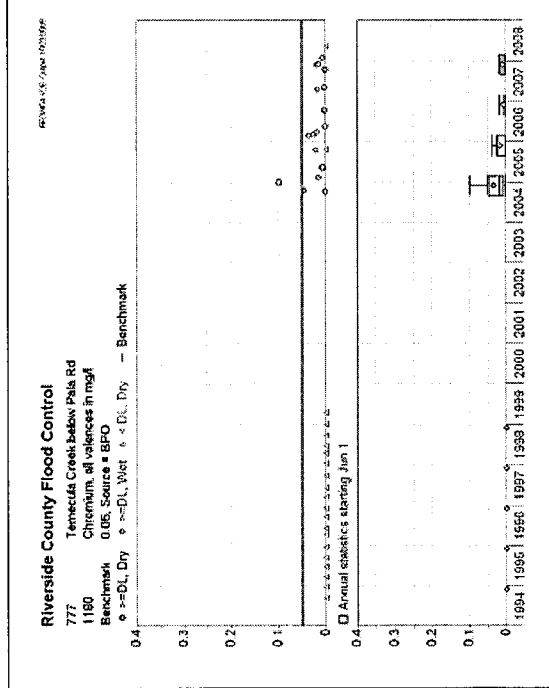
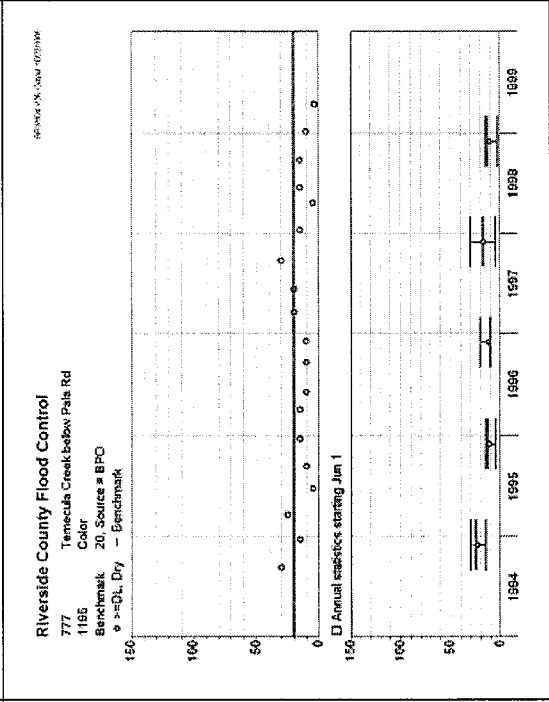
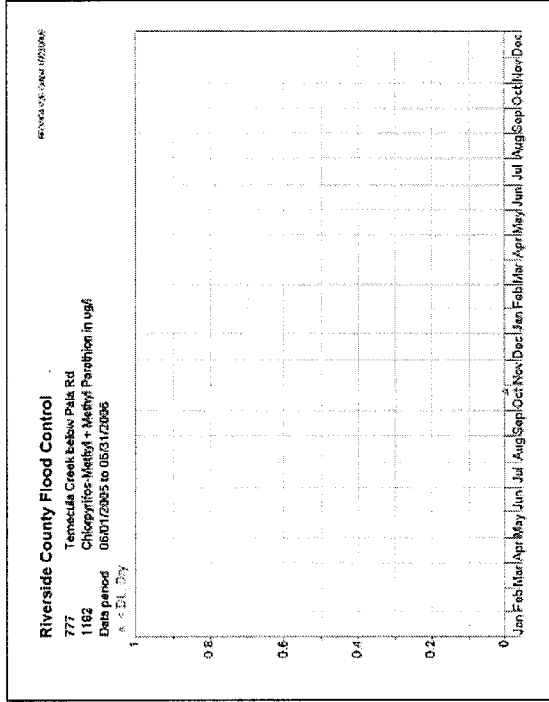


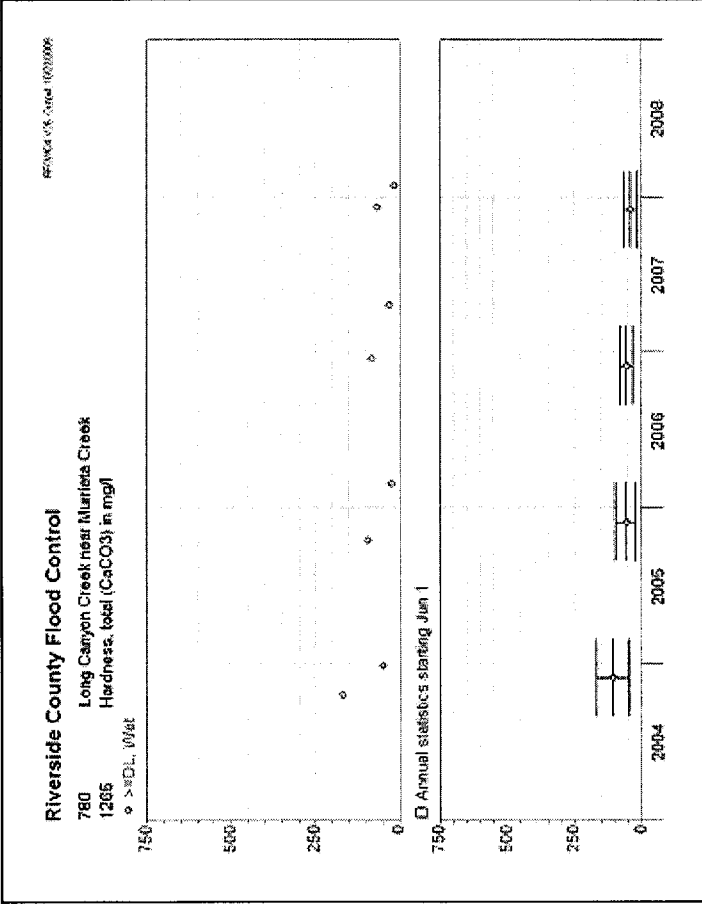












**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

FACT SHEET / TECHNICAL REPORT

FOR

**ORDER NO. R9-2010-0016
NPDES NO. CAS0108766**

WASTE DISCHARGE REQUIREMENTS

FOR

**DISCHARGES FROM THE
MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
DRAINING THE COUNTY OF RIVERSIDE,
THE INCORPORATED CITIES OF RIVERSIDE COUNTY,
AND THE RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
WITHIN THE SAN DIEGO REGION**

NOVEMBER 10, 2010

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LIST OF ACRONYMS AND ABBREVIATIONS

ADT	Average Daily Traffic
AMAL	Average Monthly Action Level
AST	Active/Passive Sediment Treatment
BAT	Best Available Technology
BIA	Building Industry Association
BMP	Best Management Practice
Basin Plan	Water Quality Control Plan for the San Diego Basin
CASQA	California Stormwater Quality Association
CCC	California Coastal Commission
CC&Rs	Covenants, Conditions and Restrictions
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
Colorado River Water Board	California Regional Water Quality Control Board, Colorado River Region
Copermittees	County of Riverside, the 4 incorporated cities within the County of Riverside in the San Diego Region, and the Riverside County Flood Control and Water Conservation District
CWA	Clean Water Act
CWC	California Water Code
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
DAMP	Drainage Area Management Plan
DNQ	Did Not Quantify
ESAs	Environmentally Sensitive Areas
FR	Federal Register
GIS	Geographic Information System
HMP	Hydromodification Management Plan
HU	Hydrologic Unit
IBI	Index of Biotic Integrity
IC/ID	Illicit Connections and Illicit Discharges
JRMP	Jurisdictional Runoff Management Plan
Los Angeles Water Board	California Regional Water Quality Control Board, Los Angeles Region
LID	Low Impact Development
MDAL	Maximum Daily Action Level
MEP	Maximum Extent Practicable
MRP	Receiving Waters Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System

LIST OF ACRONYMS AND ABBREVIATIONS (CONT'D)

NAL	Non-storm Water Action Levels
ND	Not Detected
NPDES	National Pollutant Discharge Elimination System
NRDC	Natural Resources Defense Council
NURP	Nationwide Urban Runoff Program
OAL	Office of Administrative Law
RCFCD	Riverside County Flood Control and Water Conservation District
Regional Water Board	California Regional Water Quality Control Board
RGOs	Retail Gasoline Outlets
ROWD	Riverside County Copermittees' Report of Waste Discharge (application for NPDES reissuance)
RWL	Receiving Water Limitations
SAL	Storm Water Action Level
Santa Ana Water Board	California Regional Water Quality Control Board, Santa Ana Region
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
San Francisco Bay Water Board	California Regional Water Quality Control Board, San Francisco Bay Region
SIC	Standard Industrial Classification Code
SIP	State Implementation Plan
SSMP	Standard Storm Water Mitigation Plan
State Water Board	State Water Resources Control Board
SWMP	Storm Water Management Plan
TAC	State Water Resources Control Board Urban Runoff Technical Advisory Committee
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
WDRs	Waste Discharge Requirements
WLA	Waste Load Allocation
WQO	Water Quality Objective
WQBEL	Water Quality Based Effluent Limitations
WQMP	Water Quality Management Plan
WQS	Water Quality Standard
WRMP	Watershed Runoff Management Plan

I. FACT SHEET FORMAT

This Fact Sheet briefly sets forth the principle facts and the significant factual, legal, methodological, and policy questions that the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) considered in preparing Order No. R9-2010-0016. In accordance with the Code of Federal Regulations (CFR) title 40 parts 124.8 and 124.56 (40 CFR 124.8 and 124.56), this Fact Sheet includes, but is not limited to, the following information:

- A. Contact information
- B. Public process and notification procedures
- C. Background information
- D. Permitting approach
- E. Economic issues
- F. Legal authority
- G. Findings
- H. Directives

Tentative Order No. R9-2010-0016 was distributed for public review on July 23, 2010. The San Diego Water Board accepted written comments on the Tentative Order until September 7, 2010. A public hearing was subsequently held on November 10, 2010 to receive oral comments from interested persons.

The San Diego Water Board's files applicable to the issuance of Order No. R9-2010-0016 are incorporated into the administrative record in support of the findings and requirements of Order No. R9-2010-0016.

II. CONTACT INFORMATION

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The Order and other related documents can be downloaded from the San Diego Water Board website at
http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/rsd_stormwater.shtml

All documents referenced in this Fact Sheet and in Order No. R9-2010-0016 are available for public review at the San Diego Water Board office, located at the address listed above. Public records are available for inspection during regular business hours, from 8:00 am to 5:00 pm Monday through Friday. To schedule an appointment to inspect public records, contact the San Diego Water Board Records Management Officer at 858-467-2952.

Copermittees

1. City of Murrieta	4. County of Riverside
2. City of Temecula	5. Riverside County Flood Control and Water Conservation District
3. City of Wildomar	

III. PUBLIC PROCESS AND NOTIFICATION PROCEDURES

The San Diego Water Board followed the schedule listed below for the preparation of Order No. R9-2010-0016:

- A. In December 2008, the San Diego Water Board met with the Copermittees to discuss the Report of Waste Discharge (ROWD) required by Order No. R9-2004-001.
- B. On January 15, 2009, the San Diego Water Board received the ROWD for the permit renewal.
- C. On October 29, 2009, the San Diego Water Board received the 2008-09 annual reports from the Copermittees for the existing permit.
- D. On February 8, 2010, the San Diego Water Board notified all known interested parties that an electronic email listserv had been established to provide information and notices on the reissuance of the municipal storm water NPDES permit for southern Riverside County.
- E. On February 18, 2010 the San Diego Water Board provided written comments on the ROWD to the Copermittees.
- F. On March 22, 2010, the San Diego Water Board met with the Copermittees to discuss the potential changes to the permit based on the ROWD and annual reports.
- G. Between April 22 and July 23, 2010, the San Diego Water Board met with the Copermittees on a weekly basis to discuss the Copermittees' concerns with the provisions of the Tentative Order.
- H. On July 23, 2010, the San Diego Water Board released the Tentative Order for public review and comment.
- I. Written comments were accepted until September 7, 2010.
- J. A public hearing of the Tentative Order was conducted on November 10, 2010.

IV. BACKGROUND

Order No. R9-R9-2010-0016 is the fourth iteration of the storm water permit for the municipal separate storm sewer systems (MS4s) in the Riverside County portion of the San Diego Region. The first permit was adopted in 1990. The San Diego Water Board adopted the second iteration of the permit in 1998. The U.S. Environmental Protection Agency (USEPA) objected to the 1998 permit and reissued the permit in 1999. In 2000, the San Diego Water Board issued an addendum to the 1998 permit and incorporated the USEPA's permit by reference. The San Diego Water Board reissued the third iteration of the permit in 2004.

Municipal Storm Water Permits are required by the Federal Clean Water Act 1987 Amendments. The federal Clean Water Act (CWA) was amended in 1987 to address storm water runoff from municipal and industrial dischargers. One requirement of the amendment was that many municipalities throughout the United States were obligated for the first time to obtain National Pollutant Discharge Elimination System (NPDES) permits for discharges of storm water runoff from their MS4s. In response to the CWA amendment (and the pending federal NPDES regulations which would implement the amendment), the San Diego Water Board issued a municipal storm water permit, Order No. 90-46, in July 1990 to the Copermittees for their municipal separate storm sewer system (MS4) discharges.¹

The First and Second Term Permits, Order Nos. 90-46 and 98-02, provided maximum flexibility. San Diego Water Board Order No. 90-46 contained the "essentials" of the 1990 regulations, but the requirements were written in very broad, generic terms. This was done in order to provide the maximum amount of flexibility to the Copermittees in implementing the new requirements (flexibility was, in fact, the stated reason for issuing the permit in advance of the final regulations). From staff's perspective however, "flexibility" in the form of lack of specificity, combined with the Copermittees' lack of funding and political will, also provided the Copermittees with ample reasons to take few substantive steps towards achieving water quality standards. The situation was exacerbated by the San Diego Water Board's own lack of storm water resources for oversight.

The Third-Term Permit introduced specific requirements. The regulatory approach incorporated into Order No. R9-2004-001 was a significant departure from the regulatory approach of the First and Second-Term Permits. Where San Diego Water Board Order Nos. 90-46 and 98-02 included broad, nonspecific requirements in order to provide the Copermittees with the maximum amount of flexibility in developing their programs, Order No. R9-2004-001 used detailed, specific requirements which outlined the minimum level of implementation required for the Copermittees' programs. In order to provide the Copermittees with the minimum requirements to meet the

¹ The 1990 permit was issued to the County of Riverside, the Orange County Flood Control and Water Conservation District, and the City of Temecula. Additional municipalities have been added to the MS4 NPDES permit as they have incorporated.

maximum extent practicable (MEP) standard for storm water of the San Diego Water Board, Order No. R9-2004-001 included more detail to emphasize the strong jurisdictional level programs developed by the Copermitees during the First and Second-Term Permits, as well as including the watershed-level program. The shift in permitting approaches resulted from the San Diego Water Board's conclusion that the lack of specificity in earlier Orders resulted in frequently unenforceable permit requirements, which in turn allowed some Copermitees to only make limited progress in implementing their programs.

The Third-Term Permit followed the San Diego County and Orange County permit templates. The shift in regulatory approaches for MS4 permits was first manifested in the 2001 MS4 permit to the owners and operators of San Diego County MS4s (Order No. 2001-01) and subsequently incorporated into the 2002 MS4 permit to the owners and operators of the Orange County MS4s (Order No. R9-2002-0001). The Third-Term Riverside County Permit included similar requirements as the 2001 San Diego County Permit and the 2002 Orange County Permit. Both the San Diego and Orange County Permits were appealed to the State Water Resources Control Board (State Water Board).² Minor modifications of each were made by the State Water Board, but the vast majority of the requirements were upheld. The San Diego County permit was also challenged in the Superior Court of the State of California and the Court of Appeal, Fourth Appellate District. Further litigation on the Orange County permit was held pending the precedential decisions on the San Diego Permit. The San Diego Permit was largely upheld in the Superior and Appellate Courts. The State of California Supreme Court declined to hear a final appeal from the Building Industry Association in March 2005. Thus, the Third-Term Riverside County permit requirements remained as slightly modified by the State Water Board.

The Third-Term Permit was adopted following substantial public participation. Public participation was extensive during the adoption process of the Third-Term Permit. The draft permit was released for public review and comment on December 15, 2003. Because the proposed requirements for Riverside County were similar to those that had recently been adopted and contested in San Diego County, much of the public participation dialogue echoed the discussions held during the San Diego renewal. A public workshop was held at the Temecula City Hall on January 23, 2004 to answer questions about the Tentative Order for the Third-Term Riverside County permit. A public hearing was held on February 11, 2004 to receive testimony. The public comment period was closed on March 10, 2004. Approximately 165 written and verbal comments were received and responded to during the public workshop, the public hearing, and the written comment period on the Tentative Order for the Third-Term Riverside County permit. Following the extensive public participation process, the San Diego Water Board adopted Order No. R9-2004-001 on July 14, 2004.

² Seven petitions were filed with the State Water Board over the Third-Term Orange County Permit. Six were placed in abeyance. Three of the petitioners sought stays. One stay request was dismissed and one was withdrawn. The active petition and stays were addressed by the State Water Board in Order WQO 2002-0014. That Order stayed provision F.5.f regarding sewage spills and modified Finding No. 26 regarding chronic toxicity.

Storm water programs have improved under the Third-Term Permit. Since adoption of Order No. R9-2004-001, the Copermittees' storm water programs have expanded. Audits of the Copermittees' programs and reviews of annual reports exhibit that the Copermittees' jurisdictional programs are largely in compliance with the Order. Some of the efforts currently being conducted on a regular basis by the Copermittees that were not conducted on a widespread basis prior to adoption of Order No. R9-2004-001, include: construction site storm water inspections, industrial and commercial facility storm water inspections, municipal facility storm water inspections, management of storm water quality from new development, development of best management practice (BMP) requirements for existing development, interdepartmental coordination, comprehensive water quality monitoring, and assessment of storm water program effectiveness.

Significant challenges remain. When viewed relative to the magnitude of the storm water runoff problem, enormous challenges remain, particularly regarding the management of storm water runoff on a watershed scale. Today, storm and non-storm water discharges from the MS4 continue to be the leading cause of water quality impairment in the San Diego Region.³ Since 1998, the number of impaired water bodies in the Riverside County portion of the San Diego Region on the CWA section 303(d) List of Water Quality Impaired Segments (303(d) List) has increased with each new list (i.e. new impaired water bodies listed on the 2002, 2006, and 2008 303(d) Lists). The Copermittees' monitoring data exhibits persistent exceedances of water quality objectives in the Santa Margarita watershed.⁴ The Santa Margarita watershed also has conditions that are frequently toxic to aquatic life. Bioassessment data from the watersheds further reflects these conditions, finding that macroinvertebrate communities in creeks have widespread Poor to Very Poor Index of Biotic Integrity (IBI) ratings.

³ The potential sources of impairments are identified on the CWA section 303(d) list of impaired water bodies for the San Diego Region.

⁴ Data is provided in annual reports to the San Diego Water Board. A summary of data collected during the Third-Term Permit is provided in the Riverside County Copermittees' application for permit reissuance. That summary is available on-line at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/rsd_stormwater.shtml

V. PERMITTING APPROACH (PROGRAM INTEGRATION, FLEXIBILITY, AND DETAIL)

The Order contains an increased emphasis on storm water discharge management on a watershed basis. This shift towards increased watershed management is consistent with planning efforts conducted by the San Diego Water Board regarding reissuance of the San Diego Permit (Order No. R9-2007-0001) and Orange County Permit (Order No. R9-2009-0002). This shift reflects recognition of the maturity of the storm water programs since they began implementing the Third-Term Permit. Addressing storm water discharge management on a watershed basis is only possible if effective jurisdictional programs have been established, and maintaining effective jurisdictional programs is crucial to the success of watershed-focused management.

There are several reasons for this shift in emphasis. An emphasis on watersheds is necessary to shift the focus of the Copermittees from program development and implementation to water quality results. After over 20 years of Copermittee program implementation, it is critical that the Copermittees link their efforts with positive impacts on water quality. Addressing storm water on a watershed scale focuses on water quality results by emphasizing the receiving waters within the watershed. The conditions of the receiving waters drive management actions, which in turn focus on the water quality problems in each watershed.

Focusing on watershed implementation does not mean that the Copermittees must expend funds outside of their jurisdictions. Rather, the Copermittees within each watershed are expected to collaborate to develop a watershed strategy to address the high priority water quality problems within each watershed. They have the option of implementing the strategy in the manner they find to be most effective. Each Copermittee can implement the strategy individually within its jurisdiction, or the Copermittees can group together to implement the strategy throughout the watershed.

While the Order includes a new emphasis on addressing storm water discharges on a watershed basis, the Order includes recognition of the importance of continued program implementation on jurisdictional and countywide levels. The Order also acknowledges that jurisdictional, watershed, and countywide efforts are not always mutually exclusive. For this reason, an attempt has been made to allow for the Copermittees' jurisdictional, watershed, and countywide programs to integrate.

In the Order, the watershed requirements serve as the mechanism for this program integration. Since jurisdictional and countywide activities can also serve watershed purposes, such activities can be integrated into the Copermittees' watershed programs, provided the activities meet certain criteria. In this manner, the Copermittees' activities do not always need to distinguish between jurisdictional, watershed, and countywide levels of implementation. Instead, they can be integrated on multiple levels.

Such opportunities for program integration inherently provide flexibility to the Copermittees in implementing their programs. Program integration can be expanded or minimized as the Copermittees see fit. For example, there is flexibility provided in determining the activities to be integrated and implemented in the watershed programs – watershed-based efforts, countywide efforts, enhanced jurisdictional efforts, or a mixture of the three. Significant flexibility is also provided throughout other portions of the Order.

Copermittees can choose the best management practices (BMPs) to be implemented, or required to be implemented, for development, construction, and existing development areas. Flexibility to determine which industrial or commercial sites are to be inspected is also provided to the Copermittees. Educational approaches are also to be determined by the Copermittees under the Order. Implementation of certain efforts on a countywide basis is largely optional for the Copermittees as well. Significant leeway is also provided to the Copermittees in using methods to assess the effectiveness of their various runoff management programs. This flexibility is further extended to the monitoring program requirements, which allow the Copermittees to develop monitoring approaches to several aspects of the monitoring program.

The challenge in drafting the Order is to provide the flexibility described above while ensuring that the Order is still enforceable. To achieve this, the Order frequently prescribes minimum measurable outcomes, while providing the Copermittees with flexibility in the approaches they use to meet those outcomes. Enforceability has been found to be a critical aspect of the Order. For example, the watershed requirements of Order No. R9-2004-001 were some of the Order's most flexible requirements. This lack of specificity in the watershed requirements resulted in inefficient watershed compliance efforts. This situation reflects a common outcome of flexible permit language. Such language can be unclear and unenforceable, and it can lead to implementation of inadequate programs.

To avoid these types of situations, a balance between flexibility and enforceability has been crafted into the Order. Minimum measurable outcomes are utilized to ensure the Order is enforceable, while the Copermittees are provided flexibility in deciding how they will implement their programs to meet the minimum measurable outcomes.

VI. ECONOMIC ISSUES

Economic discussions of storm and non-storm water management programs tend to focus on the significant costs incurred by municipalities in developing and implementing the programs. However, when considering the cost of implementing the programs, it is also important to consider the alternative costs incurred by not fully implementing the programs, as well as the benefits which result from program implementation.

The financial crisis and current economic environment has amplified the concerns about the costs incurred by the municipalities in implementing their programs. It is frequently cited by many of the Copermitees as a justification for reducing or modifying the requirements that must be met by their programs. While the current economic environment is a cause for concern in the short term, it also provides an opportunity for these programs to find and implement improvements and efficiencies before the next period of growth and development.

It is very difficult to ascertain the true cost of implementation of the Copermitees' management programs because of inconsistencies in reporting by the Copermitees. Reported costs of compliance for the same program element can vary widely from city to city, often by a very wide margin that is not easily explained.⁵ Despite these problems, efforts have been made to identify management program costs, which can be helpful in understanding the costs of program implementation.

Estimates of Phase I Storm Water Program Costs

The USEPA, the California Regional Water Quality Control Boards (Regional Water Boards), and the State Water Board have attempted to evaluate the costs of implementing municipal storm water programs. The assessments demonstrate that true costs are difficult to ascertain and reported costs vary widely. Nonetheless, they provide a useful context for considering the costs of requirements within Order No. R9-2010-0016. In addition, reported fiscal analyses tend to neglect the costs incurred to municipalities when storm water runoff is not effectively managed. Such costs result from pollution, contamination, nuisance, and damage to ecosystems, property, and human health.

In 1999 USEPA reported on multiple studies it conducted to determine the cost of management programs. A study of Phase II municipalities determined that the annual cost of the Phase II program was expected to be \$9.16 per household. USEPA also studied 35 Phase I municipalities, finding costs to be \$9.08 per household annually, similar to those anticipated for Phase II municipalities.⁶

⁵ LARWQCB, 2003. Review and Analysis of Budget Data Submitted by the Permittees for Fiscal Years 2000-2003. P. 2.

⁶ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791-68792.

A study on Phase I MS4 program cost was also conducted by the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board), where program costs reported in the municipalities' annual reports were assessed. The Los Angeles Water Board estimated that average per household cost to implement the MS4 program in Los Angeles County was \$12.50.⁷ Since the Los Angeles County permit is very similar to Order No. R9-2004-001, this estimate is also useful in assessing general program costs in Riverside County.

The State Water Board also commissioned a study by the California State University, Sacramento to assess costs of the Phase I MS4 program. This study includes an assessment of costs incurred by Phase I MS4s throughout the State to implement their programs. Annual cost per household in the study ranged from \$18-46, with the Fresno-Clovis Metropolitan Area (FCMA) representing the lower end of the range, and the City of Encinitas (in San Diego County) representing the upper end of the range.⁸ Included in the study is the City of Corona, which is in Riverside County under the jurisdiction of the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board).

The annual cost per household for the City of Corona's program was estimated to be \$32, which should be similar to the costs to implement the MS4 programs in the Riverside County portion of the San Diego Region. In contrast, the cost of the City of Encinitas' program, with an annual cost per household estimated to be \$46, may represent the upper range of Riverside County MS4 programs. However, the City of Encinitas's program cost can be considered as the high end of the spectrum for management program costs because the City has a consent decree with environmental groups regarding its program, and City of Encinitas has received recognition for implementing a superior program.

The annual costs for the City of Corona and City of Encinitas were estimated from data collected in 2003-2004. Between 2003 and 2008, the number of households in both cities has increased by approximately 3 percent and 7 percent, respectively.⁹ In contrast, between 2003 and 2008 the number of households in the City of Temecula has increased from 23,199 to 31,135 (34 percent)¹⁰ and the City of Murrieta has increased from 22,020 to 32,664 (48 percent).¹¹ This significant increase in number of households indicates a significant increase in the tax base (sales and property tax) available to fund the implementation of the MS4 programs for the City of Temecula and City of Murrieta, as well as for the County of Riverside and recently incorporated cities.

⁷ Los Angeles Water Board, 2003. Review and Analysis of Budget Data Submitted by the Permittees for Fiscal Years 2000-2003. P. 2.

⁸ State Water Board, 2005. NPDES Stormwater Cost Survey. P. ii.

⁹ Southern California Association of Governments, Profile of the City of Corona, dated May 2009; and City of Encinitas, Comprehensive Financial Annual Report, dated June 30, 2009.

¹⁰ Southern California Association of Governments, Profile of the City of Temecula, dated May 2009.

¹¹ Southern California Association of Governments, Profile of the City of Murrieta, dated May 2009.

The average amount spent per household in the Cities of Temecula and Murrieta, however, does not correspond with the increase in the number of households or the amount spent in municipalities in other regions. The table below compares the reported expenditures for the MS4 programs from 2006-07 to 2008-09 compared to number of households in the Cities of Encinitas, Corona, Temecula, and Murrieta.¹²

City	2006-07			2007-08			2008-09		
	\$ Spent	Households	\$/Household	\$ Spent	Households	\$/Household	\$ Spent	Households	\$/Household
Encinitas	\$1,192,174	23,798	\$50.10	\$2,052,671	23,871	\$85.99	\$1,729,962	24,100	\$71.78
Corona	\$988,547	43,000	\$22.99	\$1,151,779	43,482	\$26.49	\$1,162,928*	43,827	\$26.53
Temecula	\$566,952	28,890	\$19.62	\$748,267	30,222	\$24.76	\$534,492	31,135	\$17.17
Murrieta	\$186,377	30,237	\$6.16	\$258,247	31,758	\$8.13	\$541,180*	32,664	\$16.56

It is important to note that the program costs reported above may not include costs incurred by other departments or programs that may support the MS4 permit programs. The costs only represent the funds spent by each municipality as reported in their jurisdictional program annual reports. In any case, the figures in the table above illustrate the disparity in the amounts reportedly budgeted and spent for the programs in the Riverside County portion of the San Diego Region in comparison to the amounts budgeted and spent in the Santa Ana Region and in the San Diego County portion of the San Diego Region.

It is also important to note that reported program costs are not all attributable to compliance with MS4 permits. Many program components, and their associated costs, existed before any MS4 permits were ever issued. For example, street sweeping and trash collection costs cannot be solely or even principally attributable to MS4 permit compliance, since these practices have long been expected from and implemented by municipalities.

Therefore, true program cost resulting from MS4 permit requirements is some fraction of reported costs. The California State University, Sacramento study found that only 38 percent of program costs are new costs fully attributable to MS4 permits. The remainder of the program costs was either pre-existing or resulted from enhancement of pre-existing programs.¹³ In 2000, the County of Orange found that even lesser amounts of program costs are solely attributable to MS4 permit compliance, reporting that the amount attributable to implement the County of Orange Drainage Area Management Plan (DAMP), was less than 20 percent of the total budget. The remaining 80 percent was attributable to pre-existing programs.¹⁴

¹² Amount (\$) Spent figures are the actual expenditures reported in the 2006-07, 2007-08, and/or 2008/09 Annual Reports for the jurisdictional programs for each municipality (figures with * are estimated/budgeted expenditures). Number of households derived from SCAG 2009 profiles of Corona, Temecula, and Murrieta, and from City of Encinitas 2009 Financial Annual Report.

¹³ State Water Board, 2005. NPDES Stormwater Cost Survey. P. 58.

¹⁴ County of Orange, 2000. A NPDES Annual Progress Report. P. 60. More current data from the County of Orange is not used in this discussion because the County of Orange no longer reports such information.

Estimating Costs of Reissued Storm Water Permits

The vast majority of costs that will be incurred as a result of implementing Order No. R9-2010-0016 is not new. Storm water management programs have been in place in Riverside County for over 15 years. As shown in the discussion above, the amount spent for MS4 Permit compliance per household in the municipalities in the Riverside County portion of the San Diego Region is already low compared to other regions. Any increase in cost to the Copermittees, however, is still expected to be incremental in nature. Since Order No. R9-2010-0016 “fine tunes” the requirements of Order No. R9-2004-001, these cost increases are expected to be modest.

Where there may be additional elements that will incur new costs, the Riverside County Copermittees are given the time to develop the budgets and funding mechanisms to phase those elements into their programs. Additionally, development of these additional elements by the Riverside County Copermittees will have the benefit of the experiences and work already done by the San Diego County and Orange County Copermittees.

The anticipated costs of program changes are difficult to estimate because of the flexibility inherent within the Permit and the recognition that program modifications will vary among the municipalities in response to the specific needs of the local and watershed programs. In other words, the Permit is intended to allow each Copermittee to de-emphasize some program components and strengthen others based on the experience of the jurisdictional programs.

The changes in Order No. R9-2010-0016 reflect the iterative process of BMP implementation and the necessarily adaptive nature of storm water management that is expected by the USEPA. In 1996, USEPA recognized that changes to MS4 programs would occur during the reapplication period based on new information on the relative magnitude of a problem, new data on water quality impacts of the storm water discharges, and experience gained under the prior permit.¹⁵ Some changes have been proposed by the Copermittees in the permit reapplication package, and others have been included because the San Diego Water Board considers those measures necessary and feasible to protect water quality from the effects of MS4 discharges.

¹⁵ Federal Register / Vol. 61, No. 155 / Friday, August 9, 1996 / Rules and Regulations. Interpretive policy memorandum on reapplication requirements for MS4s.

Other Economic Considerations

Economic considerations of management programs cannot be limited only to program costs. Evaluation of programs requires information on the implementation costs and information on the benefits derived from environmental protection and improvement.¹⁶ Attention is often focused on program costs, but the programs must also be viewed in terms of their value to the public.

For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by USEPA to be \$158-210.¹⁷ This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study reports that the annual household willingness to pay for statewide clean water is approximately \$180.¹⁸ When viewed in comparison to household costs for existing management programs, household willingness to pay estimates exhibit that per household costs incurred by the Riverside County Copermittees to implement their management programs are very low.

Placing a value on good water quality in receiving waters is very difficult. The Santa Margarita River is one of the few remaining natural gorge rivers in southern California, with approximately 70 species of special concern (rare, threatened, or endangered) regularly inhabiting the watershed, including 30 that are currently protected under the Federal Endangered Species Act.¹⁹ The Upper Santa Margarita Watershed provides significant habitat and recreation opportunities. In addition, residents and businesses in the Upper Santa Margarita Watershed rely heavily of local water for drinking, agriculture, and industrial supply.

Often the value of receiving waters with good water quality manifests in other forms, such as tourism, recreational opportunities, and increased property values. When surface waters are degraded, thereby degrading the habitat, the public loses the aesthetic value and benefit of being able to use the area in and around the water. Surface waters that are able to support the beneficial uses designated in the Water Quality Control Plan for the San Diego Basin (Basin Plan) can sustain plants and wildlife that can attract visitors and residents, providing aesthetic, recreational, as well as monetary value to the public. At this time, however, there have been no studies for the Riverside County portion of the San Diego Region to quantify the added value that surface waters with healthy water quality can provide.

It is also important to consider the benefits of management programs in conjunction with their costs. A study conducted by the University of Southern California and University of California, Los Angeles assessed the costs and benefits of implementing

¹⁶ Ribaud M.O. and D. Heelerstein. 1992, *Estimating Water Quality Benefits: Theoretical and Methodological Issues*. U.S. Department of Agriculture. Technical Bulletin No. 1808.

¹⁷ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68793.

¹⁸ State Water Board, 2005. NPDES Stormwater Cost Survey. P. iv.

¹⁹ Stein, E. and Ambrose, R. 1998. Cumulative Impacts of Section 404 Clean Water Act Permitting on the Riparian Habitat of the Santa Margarita, California Watershed. *Wetlands*, Vol. 18, No. 3.

various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.²⁰ Costs are anticipated to be borne over many years – probably ten years at least. As can be seen, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II storm water rule would also outweigh the costs.²¹

²⁰ Los Angeles Water Board, 2004. Alternative Approaches to Stormwater Control.

²¹ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68791.

VII. LEGAL AUTHORITY

The following statutes, regulations, and Water Quality Control Plans provide the basis for the requirements of Order No. R9-2010-0016: Clean Water Act (CWA), California Water Code (CWC), Title 40 of the Code of Federal Regulations (40 CFR) Parts 122, 123, 124 (National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, Final Rule), Part II of 40 CFR Parts 9, 122, 123, and 124 (National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule), Water Quality Control Plan – Ocean Waters of California (California Ocean Plan), Water Quality Control Plan for the San Diego Basin (Basin Plan), 40 CFR 131 Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule (California Toxics Rule), and the California Toxics Rule Implementation Plan.

The legal authority citations below generally apply to directives in Order No. R9-2010-0016, and provide the San Diego Water Board with ample underlying authority to require each of the directives of Order No. R9-2010-0016. Legal authority citations are also provided with each permit section discussion in section IX of this Fact Sheet/Technical Report.

CWA 402(p)(3)(B)(ii) – The CWA requires in section 402(p)(3)(B)(ii) that permits for discharges from municipal storm sewers “shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers.”

CWA 402(p)(3)(B)(iii) – The CWA requires in section 402(p)(3)(B)(iii) that permits for discharges from municipal storm sewers “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

40 CFR 122.26(d)(2)(i)(B,C,E, and F) – Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B,C,E, and F) provide that each Copermittee’s permit application “shall consist of: (i) Adequate legal authority. A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to: [...] (B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer; (C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water; [...] (E) Require compliance with condition in ordinances, permits, contracts or orders; and (F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.”

40 CFR 122.26(d)(2)(iv) – Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) provides that the Copermitttee shall develop and implement a proposed management program which “shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. [...] Proposed programs may impose controls on a system wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. [...] Proposed management programs shall describe priorities for implementing controls.”

40 CFR 122.26(d)(2)(iv)(A - D) – Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in storm water runoff from new development and significant redevelopment, construction, and commercial, residential, industrial, and municipal land uses or activities. Prevention of illicit discharges is also required.

CWC 13377 – CWC section 13377 provides that “Notwithstanding any other provision of this division, the State Water Board or the Regional Water Boards shall, as required or authorized by the CWA, as amended, issue waste discharge requirements and dredged or fill material permits which apply and ensure compliance with all applicable provisions of the act and acts amendatory thereof or supplementary, thereto, together with anymore stringent effluent standards or limitation necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance.”

Order No. R9-2010-0016 is an essential mechanism for achieving the water quality objectives that have been established for protecting the beneficial uses of the water resources in the San Diego Water Board’s portion of Riverside County. Federal NPDES regulation 40 CFR 122.44(d)(1) requires MS4 permits to include any requirements necessary to “achieve water quality standards established under CWA section 303, including State narrative criteria for water quality.” The term “water quality standards” in this context refers to a water body’s beneficial uses and the water quality objectives necessary to protect those beneficial uses as established in the Basin Plan and antidegradation policies.

VIII. FINDINGS

The findings of the Order have been modified to reduce repetition in their discussions and address new requirements. Each finding of the Order is provided and discussed below. Additional discussion relative to the findings can be found in section IX of the Fact Sheet, which provides discussions of the Order's directives.

A. Basis For the Order

Finding A.1. This Order is based on the federal Clean Water Act (CWA), the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable State and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (State Water Board), the Water Quality Control Plan for the San Diego Basin adopted by the San Diego Water Board (Basin Plan), the California Toxics Rule, and the California Toxics Rule Implementation Plan.

Discussion of Finding A.1. In 1987, Congress established CWA Amendments to create requirements for storm water discharges under the NPDES program, which provides for permit systems to regulate the discharge of pollutants. Under the Porter-Cologne Water Quality Control Act, the State Water Board and the nine Regional Water Boards have primary responsibility for the coordination and control of water quality, including the authority to implement the CWA. Porter-Cologne (section 13240) directs the Regional Water Boards to set water quality objectives via adoption of Water Quality Control Plans (Basin Plans) that conform to all State policies for water quality control.

As a means for achieving those water quality objectives, Porter-Cologne (section 13243) further authorizes the Regional Water Boards to establish waste discharge requirements (WDRs) to prohibit waste discharges in certain conditions or areas. Since 1990, the San Diego Water Board has issued area-wide MS4 NPDES permits. The Order will renew Order No. R9-2004-001 to comply with the CWA and attain water quality objectives in the Basin Plan by including numeric storm water action levels to limit the contributions of pollutants conveyed by storm water, and by including numeric non-storm water action levels for dry weather non-storm water discharges designed to ensure that the Copermittees comply with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into their MS4. Further discussions of the legal authority associated with the prohibitions and directives of the Order are provided in section VII this document.

Finding A.2. This Order reissues National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0108766, which was first adopted by the San Diego Water Board on July 16, 1990 (Order No. 90-38), and then reissued on May 13, 1998 (Order No. 98-02). On May 26, 1998, the United States Environmental Protection Agency

(USEPA), Region IX, objected to Order No. 98-02 due to concerns regarding Receiving Water Limitations (RWL) language. The USEPA concluded that the RWL language in the permit did not comply with the CWA and its implementing regulations. On April 27, 1999, the USEPA reissued the MS4 permit, which the San Diego Water Board adopted as Addendum No. 1 to Order No. 98-02 on November 8, 2000. On July 14, 2004, the San Diego Water Board adopted the third term MS4 permit, Order No. R9-2004-001. On January 15, 2009, the Riverside County Flood Control and Water Conservation District (RCFCD), as the Principal Copermittee, submitted a Report of Waste Discharge (ROWD) for reissuance of the municipal separate storm sewer system (MS4) Permit.

Discussion of Finding A.2. This Order renews National Pollutant Discharge Elimination System (NPDES) Permit No. CAS0108766, which was first issued on July 16, 1990 (Order No. 90-38), and then renewed on May 13, 1998 (Order No. 98-02). The USEPA determined that Order No. 98-02 the Receiving Water Limitations (RWL) language in the permit did not comply with the CWA and its implementing regulations. The USEPA assumed responsibility and reissued the Riverside County MS4 permit on April 27, 1999. Subsequently, the San Diego Water Board adopted Addendum No. 1 to Order No. 98-02 on November 8, 2000, which incorporated the USEPA's permit by reference. On July 14, 2004, the San Diego Water Board adopted the third term MS4 permit, Order No. R9-2004-001. On January 15, 2009, in accordance with Order No. R9-2004-001, the Riverside County Flood Control and Water Conservation District (District), as the Principal Copermittee, submitted a Report of Waste Discharge (ROWD) for reissuance of the municipal separate storm sewer system (MS4) Permit. Supporting information discussing the topic of this finding can be found in section V of this document.

Finding A.3. This Order is consistent with the following precedential Orders adopted by the State Water Board addressing MS4 NPDES Permits: Order WQ 99-05, Order WQ 2000-11, Order WQ 2001-15, Order WQO 2002-0014, and Order WQ 2009-0008 (*SWRCB/OCC FILE A-1780*).

Discussion of Finding A.3. In recent years the State Water Board has considered several appeals of MS4 permits issued by the Regional Water Boards. In State Water Board Order WQ 99-05, the State Water Board established Receiving Water Limitation Language for MS4 permits. In State Water Board Order WQ 2000-11, the State Water Board addressed design standards for Standard Urban Storm Water Mitigation Plan (SUSMP) requirements. In State Water Board Order WQ 2001-15, the State Water Board addressed Petitions of the San Diego County MS4 Permit issued by the San Diego Water Board in 2001 (San Diego Water Board Order No. 2001-001). In State Water Board Order WQO 2002-0014, the State Water Board addresses Petitions of the Orange County MS4 Permit issued by the San Diego Water Board in 2002 (San Diego Water Board Order No. R9-2002-0001). In State Water Board Order WQ 2009-0008, the State Water Board addresses Petitions of the Los Angeles County MS4 Permit issued by the Los Angeles Water Board in 2006 (Los Angeles Water Board Order No. R4-2006-0074).

Finding A.4. The Fact Sheet / Technical Report for the Order No. R9-2010-0016, NPDES No. CAS0108766, Waste Discharge Requirements for Discharges from the MS4s Draining the County of Riverside, the Incorporated Cities of Riverside County, and the Riverside County Flood Control and Water Conservation District within the San Diego Region, includes cited regulatory and legal references and additional explanatory information and data in support of the requirements of this Order. This information, including any supplements thereto, is hereby incorporated by reference into these findings.

Discussion of Finding A.4. This Fact Sheet briefly sets forth the principle facts and the significant factual, legal, methodological, and policy questions that the San Diego Water Board considered in preparing Order No. R9-2010-0016, in accordance with the Code of Federal Regulations (CFR) title 40 parts 124.8 and 124.56 (40 CFR 124.8 and 124.56). This Fact Sheet includes general information regarding the watershed and the Copermittees' discharges from their MS4 systems. The discussions in the Fact Sheet include references to applicable statutes and regulations, as well as other supporting documents. The discussions in the Fact Sheet also can clarify the permit writer's intent for requirements that may appear vague or open to multiple interpretations.

B. Regulated Parties

Finding B.1. Each of the persons in Table 1 below, hereinafter called Copermittees or dischargers, owns or operates an MS4, through which it discharges storm water and non-storm water into waters of the United States (U.S.) within the San Diego Region. These MS4s fall into one or more of the following categories: (1) a medium or large MS4 that services a population of greater than 100,000 or 250,000 respectively; or (2) a small MS4 that is “interrelated” to a medium or large MS4; or (3) an MS4 which contributes to a violation of a water quality standard; or (4) an MS4 which is a significant contributor of pollutants to waters of the U.S.

The Cities of Murietta, Menifee and Wildomar also discharge into waters of the U.S. in the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board), so are located partially within both the San Diego and Santa Ana Water Board boundaries. As allowed by California Water Code (CWC) §13228, these Cities submitted written requests to be regulated for MS4 purposes under a permit adopted by only one Water Board. As authorized by CWC § 13228 and pursuant to a written agreement between the San Diego Water Board and the Santa Ana Water Board, the Cities of Murrieta and Wildomar are wholly regulated by the San Diego Water Board under this Order, including those portions of the Cities jurisdiction not within the San Diego Water Board’s region. Similarly, the City of Menifee is wholly regulated by the Santa Ana Water Board under Order No. R8-2010-0033, including those portions of the City of Menifee within the San Diego Water Board’s region.

Discussion of Finding B.1. Section 402 of the CWA prohibits the discharge of any pollutant to waters of the United States from a point source, unless that discharge is authorized by a NPDES permit. Though storm water and non-storm water may come from a diffuse source, it is discharged through MS4s, which are point sources under the CWA. Federal NPDES regulation 40 CFR 122.26(a) (iii) and (iv) provide that discharges from MS4s, which service medium or large populations greater than 100,000 or 250,000 respectively, shall be required to obtain a NPDES permit. Federal NPDES regulation 40 CFR 122.26(a)(v) also provides that a NPDES permit is required for “A [storm water] discharge which the Director, or in states with approved NPDES programs, either the Director or the USEPA Regional Administrator, determines to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.” Such sources are then designated into the program.

Included in Table 1 of the Order are the Cities of Murrieta, Temecula, and Wildomar, the County of Riverside, and the Riverside County Flood Control and Water Conservation District. The Cities of Wildomar and Menifee are newly incorporated cities. Both Cities were previously a part of the County of Riverside’s jurisdiction and have an MS4 interrelated to other Copermittee MS4s in the San Diego Region. The boundaries of the Cities of Menifee, Murrieta, and Wildomar fall within the jurisdiction of both the San Diego Water Board and the Santa Ana Water Board.

As requested by the Cities of Menifee, Murrieta, and Wildomar, and pursuant to an agreement between the San Diego and Santa Ana Water Boards as authorized by CWC section 13228, the MS4s of the Cities of Murrieta and Wildomar are to be wholly regulated by the San Diego Water Board under this Order, and the MS4 of the City of Menifee is to be wholly regulated by the Santa Ana Water Board under Order No. R8-2010-0033. The agreement between the San Diego and Santa Ana Water Board to regulate the Cities of Menifee, Murrieta, and Wildomar will be subject to change with sufficient notice, and for good cause.

Other small MS4s also exist within the portion of Riverside County in the San Diego Region. While these small MS4s are not subject to this Order, they are subject to the Phase II NPDES storm water regulations. Over time, these small MS4s will be designated for coverage under the State Water Board's statewide general storm water permit for small MS4s.

C. Discharge Characteristics

Finding C.1. Discharges from the MS4 contain waste, as defined in the CWC, and pollutants that adversely affect the quality of the waters of the State. The discharge from an MS4 is a “discharge of pollutants from a point source” into waters of the U.S. as defined in the CWA.

Discussion of Finding C.1. Section 13050(d) of the CWC defines “waste” as “sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.” 40 CFR 122.2 defines “point source” as “any discernable, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.” 40 CFR 122.2 defines “discharge of a pollutant” as “Any addition of any pollutant or combination of pollutants to waters of the U.S. from any point source.” Also, the justification for control of pollution into waters of the state can be found at CWC section 13260(a)(1). State Water Board Order No. WQ 2001-15 verifies that discharges from the MS4 contain waste.²²

The term “urban runoff” has been removed throughout Order No. R9-2010-0016 and replaced with storm water (wet weather) or non-storm water (dry weather) runoff. This clarification is necessary to prevent the misunderstanding that regulation under this permit is subject only to urbanized areas. The term “urban runoff” is not defined in the Code of Federal Regulations or Federal Register in the regulation of Phase I MS4 discharges.

In the Copermittees’ ROWD, a distinction is made between urban land use areas and non-urban land use areas. Urban land use areas include commercial, industrial, *urban residential (less than 1 acre)*, parks and recreation facilities, and streets and roads land use categories. Non-urban land use areas include preserves and open space, agriculture, federal/state/tribal lands/non-County jurisdiction, and *rural residential (greater than 1 acre)*. The ROWD implies that only discharges from the urban land use areas are subject to the requirements of the MS4 Permit, thus rural residential (greater than 1 acre) land use areas would not be subject to the requirements of the MS4 Permit. Rural residential land use areas, however, are subject to the requirements of the MS4 Permit. The removal of the term urban runoff will further clarify the application of the requirements of the MS4 Permit.

²² State Water Board, 2001. Order WQ 2001-15. In the Matter of Petitions of Building Industry Association of San Diego County and Western States Petroleum Association: For Review of Waster Discharge Requirements Order No. 2001-01 for Urban Runoff from San Diego County [NPDES No. CAS0108758] Issued by the Regional Board.

The discharge of runoff from an MS4 is a “discharge of pollutants from a point source” into waters of the U.S. as defined in the CWA. The Permit defines runoff as all flows in a storm water conveyance system (MS4 defined below) and consists of the following components:

- (1) storm water (wet weather flows) and
- (2) non-storm water discharges (dry weather flows).

The Permit defines an MS4 as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
- (ii) Designated or used for collecting or conveying storm water;
- (iii) Which is not a combined sewer;
- (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

Permit finding D.3.c. includes natural streams that convey runoff as part of the MS4. The presence of an MS4 system is not limited to areas considered to be “urban” in nature. Though the term urban is often referred to specifically as pertaining to cities, runoff means all flows in a storm water conveyance system, regardless of the location of the conveyance system. A conveyance system owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law), may be located in a setting (e.g. unincorporated area, low density residential) that is not considered by the public to be “urban” in nature. These areas are contributing pollutants to the MS4 system that must be addressed. The term runoff applies to all flows in an MS4 system, no matter where the MS4 may be located in regards to incorporated or unincorporated property. Storm water and non-storm water discharges from the rural residential (greater than 1 acre) land use category, characterized as non-urban, that enter into any part of the MS4 system (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), are also subject to the requirements of the MS4 Permit.

The Code of Federal Regulations (CFR) at 40 CFR 122.26 requires that large and medium MS4s obtain a permit for all discharges from their systems. Appendix I to 40 CFR 122 designates Riverside County as having a large and medium MS4 requiring a permit. The regulations do not differentiate discharges from urban or rural MS4 systems. Rather, the regulations require the permit for all discharges from their systems. In the Final Rule establishing the Phase 1 storm water regulations, the USEPA clarified that all discharges are subject to a permit. On page 48041 of the Final Rule, the USEPA states:

“EPA recognizes that some of the counties addressed by today’s rule have, in addition to areas with high unincorporated urbanized populations, areas that are essentially rural or uninhabited and may not be the subject of planned development. While permits issued for these municipal systems **will cover** (*emphasis added*) *municipal systems discharges in unincorporated portions of the county* (*emphasis added*), it is the intent of EPA that management plans and other components of the programs focus on the urbanized and developing areas of the county.”

So, while the Permit covers all MS4 discharges regardless if that discharge is in an urban or unincorporated area; the Copermittees management program should focus on urbanized areas. Due to the Permit’s requirements, the Copermittees management programs will naturally focus on urbanized areas. Urbanized areas have more industry, construction, pollution and MS4s that require more inspection, maintenance, monitoring, enforcement and complaint follow-up.

USEPA further clarified on page 48041 that all MS4 discharges require permit coverage when addressing highway MS4 systems:

“[The regulations] will result in discharges from separate storm sewer systems serving State highways and other highways through storm sewers ... in unincorporated portions of specified counties being included as part of the large or medium municipal separate storm sewer systems, since all municipal separate storm sewers within the boundaries of these political entities are included.”

In their summary on page 48043, the USEPA states:

“The definition [of MS4] provides that all systems within a geographical area including highways and flood controls will be covered, thereby avoiding fragmented and ill-coordinated programs;”

Neither the State Water Board’s storm water permit for Caltrans (State Water Board Order No. 99-06-DWQ) nor the Los Angeles Water Board’s MS4 permit for Ventura County include the term “urban runoff” in a significant regulatory capacity. The Caltrans permit has one reference to “urban runoff” where the term is used interchangeably with “storm water.” The draft Ventura permit uses the term “urban

runoff" when referring to titles of reference documents, previously adopted management plans and municipal ordinances that may contain the phrase.

The Copermittees have expressed concern regarding the regulation of pollutants from natural, undeveloped areas that enter the MS4 in an unincorporated area. Runoff and pollutants from any source entering the MS4, however, become the responsibility of the Copermittees upon entering the MS4. The assimilation of pollutants from natural, undeveloped areas is different under natural conditions compared to when they are transported through the MS4. The MS4 collection could change a natural sheet flow discharge to a concentrated point discharge. The MS4 does not provide natural infiltration or other pollutant remediation that these flows would receive in an otherwise natural drainage system. The MS4 may concentrate these natural pollutants and flows. In some cases, the MS4 may ultimately discharge the elevated concentrations of natural pollutants and flow rates to waters of the US far from the natural pollutant and flow source, causing a condition of pollution or a violation of water quality standards.

Finding C.2. MS4 storm water and non-storm water discharges are likely to contain pollutants that cause or threaten to cause a violation of surface water quality standards, as outlined in the Basin Plan. Storm water and non-storm water discharges from the MS4 are subject to the conditions and requirements established in the Basin Plan for point source discharges.

Discussion of Finding C.2. This finding is a clarification regarding the potential for discharges of storm water and non-storm water to impact the Beneficial Uses as described in the Basin Plan. As such these point source discharges require Waste Discharge Requirements (WDRs) to ensure that water quality standards are met. Furthermore, since point source discharges require WDRs, the discharges are subject to the prohibitions, conditions and requirements of the Basin Plan.

In addition, municipal discharges have been split into storm water and non-storm water discharges to represent the differing regulations applicable to storm water and non-storm water, though both types of discharges are likely to contain pollutants.

Finding C.3. The most common categories of pollutants in runoff include total suspended solids, sediment, pathogens (e.g., bacteria, viruses, protozoa), heavy metals (e.g., copper, lead, zinc and cadmium), petroleum products and polynuclear aromatic hydrocarbons, synthetic organics (e.g., pesticides, herbicides, and PCBs), nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), detergents, and trash.

Discussion of Finding C.3. The National Urban Runoff Program (NURP) study showed that heavy metals, organics, coliform bacteria, nutrients, oxygen demanding substances (e.g., decaying vegetation), and total suspended solids are found at

relatively high levels in storm water and non-storm water discharges.²³ It also found that MS4 discharges draining residential, commercial, and light industrial areas contain significant loadings of total suspended solids and other pollutants. The Basin Plan goes on to identify runoff pollutants to include lawn and garden chemicals, household and automotive care products dumped or drained on streets, and sediment that erodes from construction sites.²⁴ In addition, the State Water Board Urban Runoff Technical Advisory Committee (TAC) finds that urban runoff pollutants include sediments, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogenic bacteria, viruses, and pesticides.²⁵ Runoff that flows over streets, parking lots, construction sites, and industrial, commercial, residential, and municipal areas carries these untreated pollutants through storm drain networks directly to the receiving waters of the San Diego Region.

Finding C.4. The discharge of pollutants and/or increased flows from MS4s may cause or threaten to cause the concentration of pollutants to exceed applicable receiving water quality objectives and impair or threaten to impair designated beneficial uses resulting in a condition of pollution (i.e. unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance.

Discussion of Finding C.4. The 1992, 1994, and 1996 National Water Quality Inventory Reports to Congress prepared by USEPA showed a trend of impairment in the nation's waters from contaminated storm and non-storm water runoff.²⁶ The 1998 National Water Quality Inventory Report showed that runoff discharges affect 11 percent of rivers, 12 percent of lakes, and 28 percent of estuaries. Primary sources of impairment to rivers and streams included sediment, bacteria, nutrients, oxygen-depleting substances, metals, and pesticides. The report notes that runoff discharges are the leading source of pollution and the main factor in the degradation of surface water quality in California's coastal waters, rivers, and streams. Furthermore, the NURP study found that pollutant levels from illicit non-storm water discharges were high enough to significantly degrade receiving water quality, and threaten aquatic life, wildlife, and human health.²⁷

In addition, the Region's CWA section 303(d) list, which identifies water bodies with impaired beneficial uses within the region, also indicates that the impacts of storm water and non-storm water runoff on receiving waters are significant. Many of the impaired water bodies on the 303(d) list are impaired by constituents that have been found at high levels within storm water and non-storm water runoff by the Riverside County storm water monitoring program.²⁸ Examples of constituents frequently

²³ Ibid.

²⁴ San Diego Water Board, 1994. Water Quality Control Plan, San Diego Basin, Region 9. San Diego.

²⁵ State Water Board, 1994. Urban Runoff Technical Advisory Committee Report and Recommendations. Nonpoint Source Management Program.

²⁶ USEPA, 2000. Quality of Our Nation's Waters: Summary of the National Water Quality Inventory 1998 Report to Congress – USEPA 841-S-00-001; Water Quality Conditions in the United States: Profile from the 1998 National Water Quality Inventory Report to Congress – USEPA 841-F-00-006.

²⁷ USEPA, 1993. Results of the Nationwide Urban Runoff Program, Volume 1 – Final Report.

²⁸ County of Riverside, 2009. Riverside County Municipal Copermittees 2008-09 Annual Storm Water Program Report, Section 11.

responsible for beneficial use impairment include indicator fecal bacteria, heavy metals, toxicity, pesticides, dissolved solids, turbidity, and nutrients. These constituents have been found at high levels in runoff both regionally and nationwide.^{29,30} In addition, impairments may be caused by synergistic effects of multiple contaminants or by pollutants not currently monitored by storm water programs.

Finding C.5. Pollutants in runoff can threaten and adversely affect human health. Human illnesses have been clearly linked to recreating near storm drains flowing to receiving waters. Also, runoff pollutants in receiving waters can bioaccumulate in the tissues of invertebrates and fish, which may be eventually consumed by humans.

Discussion of Finding C.5. Human illnesses have been clearly linked to recreating near storm drains flowing to coastal waters. A landmark study, conducted by the Santa Monica Bay Restoration Project, found that there was an increased occurrence of illness in people that swam in proximity to a flowing storm drain.³¹ A study of south Huntington Beach and north Newport Beach (both located in northern Orange County) found that an illness rate of about 0.8 percent among bathers at those beaches resulted in about \$3 million annually in health-related expenses.³² Although the Upper Santa Margarita Watershed is inland, the watershed drains to the Pacific Ocean, and pollutants generated in the area may impact coastal waters. For example, the Santa Margarita River system provides the main source of beach sand for the beaches in northern San Diego County.³³ In addition, residents from the Upper Santa Margarita Watershed, who recreate at southern California beaches, benefit from clean water.

Residents and businesses in the Upper Santa Margarita Watershed also rely heavily on local water for drinking, agriculture and industrial supply. Over 40 percent of the water used in the watershed is locally produced.³⁴ In addition, surface and ground water from the Upper Santa Margarita Watershed flow to Fallbrook in San Diego County and the U.S. Marine Corps Base Camp Pendleton where it is used as part of the municipal and domestic water supply.

According to the USEPA, spilled fuel, solvents, waste oil, paints, and other maintenance fluids pose a risk to the environment, but may be especially harmful if they enter someone's drinking water supply.³⁵ Discharges of runoff from urban areas were identified by the California Department of Health Services as one of the most

²⁹ Ibid.

³⁰ USEPA, 1983. Results of the Nationwide Urban Runoff Program, Volume 1 – Final Report.

³¹ Haile, R.W., et al., 1996. An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay. Santa Monica Bay Restoration Project.

³² Dwight, R.H., et al., 2005. Estimating the Economic Burden From Illnesses Associated With Recreational Coastal Water Pollution – A Case Study in Orange County, California. *Journal of Environmental Management* Vol.76. No.2 p.95-103. Also reported in: Los Angeles Times, May 2, 2005. Here's What Ocean Germs Cost You: A UC Irvine Study Tallies the Cost of Treatment and Lost Wages for Beachgoers Who Get Sick.

³³ Shapiro. 1991. Refuge in an urbanized land, the Santa Margarita River: cultural and natural resource value. Santa Margarita Research Foundation, Fallbrook, CA.

³⁴ Jenks, J. 2002. Santa Margarita River Watershed Annual Watermaster Report: Water Year 2000-2001.

³⁵ USEPA. 2004. Municipal Storm Water and Ground Water Discharge Regulations in California. F-909-04-004.

prevalent possible contaminating activities for drinking water sources.³⁶ This issue of potential source water contamination is of fundamental importance, because of the dependence on local water for domestic use in the Santa Margarita Watershed.

Furthermore, runoff pollutants in receiving waters can bioaccumulate in the tissues of invertebrates and fish, which may eventually be consumed by humans. Pollutants such as heavy metals and pesticides, which are commonly found in MS4 runoff, have been found to bioaccumulate and biomagnify in long-lived organisms at the higher trophic levels.³⁷ Since many aquatic species are utilized for human consumption, toxic substances accumulated in species' tissues can pose a significant threat to public health. USEPA supports this finding when it states, "As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff and are carried to receiving waters, such as lakes, ponds, and streams. Once deposited, these pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans."³⁸

Finding C.6. Runoff discharges from MS4s often contain pollutants that cause toxicity to aquatic organisms (i.e. adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). Toxic pollutants impact the overall quality of aquatic systems and beneficial uses of receiving waters.

Discussion of Finding C.6. The Copermittees' monitoring data exhibits frequent toxic conditions in runoff during storm events and dry weather. Toxicity varies significantly within and among sites and over time. The cause of toxicity may vary between locations, dates, and indicator organisms. The actual cause may be influenced by various factors such as development, land uses, runoff management, habitat modification, hydromodification, and native aquatic environment. Some toxicity identification evaluations (TIEs) have identified pyrethroids as a cause of toxicity in the receiving waters.³⁹

Finding C.7. The Copermittees discharge runoff into lakes, drinking water reservoirs, rivers, streams, creeks, bays, estuaries, coastal lagoons, the Pacific Ocean, and tributaries thereto within one of the eleven hydrologic units (Santa Margarita Hydrologic Unit) comprising the San Diego Region as shown in Table 2. Some of the receiving water bodies have been designated as impaired by the San Diego Water Board in 2009 pursuant to CWA section 303(d).

³⁶ Ibid.

³⁷ Abel, P.D, 1996. Water Pollution Biology.

³⁸ USEPA, 2000. Storm Water Phase II Compliance Assistance Guide. Washington D.C. EPA 833-R-00-002.

³⁹ County of Riverside, 2009. Riverside County Municipal Copermittees 2008-09 Annual Storm Water Program Report, Section 11.

Discussion of Finding C.7. This finding identifies the major receiving water bodies in the Riverside County portion of the Santa Margarita Hydrologic Unit that are listed as impaired on the CWA section 303(d) List of Impaired Waters (303(d) List). The 2006 303(d) List has been approved by the San Diego Water Board, State Water Board, and USEPA.⁴⁰ The 2008 303(d) List was approved by the San Diego Water Board on December 18, 2009 and by the State Water Board on August 4, 2010, and is awaiting USEPA approval.⁴¹ The 303(d) list identifies waters that do not meet water quality standards after applying certain required technology-based effluent limits (“impaired” water bodies). As part of this listing process, states are required to prioritize waters/watersheds for future development of Total Maximum Daily Loads (TMDLs). The listed 303(d) pollutant(s) of concern do not necessarily reflect impairment of the entire corresponding major surface water bodies. The specific impaired portions of each water body are listed in the 2006 and 2008 303(d) Lists.

Since 2002, the number of water bodies and water body – pollutant combinations included on the 303(d) List, located in the Riverside County portion of the San Diego Region, has increased. A comparison of the 2002, 2006, and 2008 303(d) listings are summarized in the following table.

⁴⁰ The approved 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments is on-line at:
http://www.waterboards.ca.gov/tmdl/303d_lists2006.html

⁴¹ The 2008 Clean Water Act Section 303(d) List of Water Quality Limited Segments, approved by the San Diego Water Board and State Water Board, is available on-line at
http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/303d_list/index.shtml

Comparison of Riverside County 303(d) Listings

Watershed ¹	2002 303(d) List		2006 303(d) List		2008 303(d) List ²	
	Listed Water Body	Impairing Pollutants	Listed Water Body	Impairing Pollutants	Listed Water Body	Impairing Pollutants
De Luz Creek HSA (902.21)	NO LISTINGS	NOT APPLICABLE	De Luz Creek	Iron Manganese	De Luz Creek	Iron Manganese Nitrogen Sulfates
Gavilan HSA (902.22)	Sandia Creek	TDS	Sandia Creek	Iron Manganese Nitrogen Sulfates TDS	Sandia Creek	Iron Sulfates TDS
	Santa Margarita River (Upper)	Phosphorus	Santa Margarita River (Upper)	Phosphorus	Santa Margarita River (Upper)	Phosphorus Toxicity
Murrieta HSA (902.32)	NO LISTINGS	NOT APPLICABLE	Long Canyon Creek	TDS	Long Canyon Creek	Chlorpyrifos E. Coli Fecal Coliform Iron Manganese
	Santa Margarita River (Upper)	Phosphorus	Santa Margarita River (Upper)	Phosphorus	Santa Margarita River (Upper)	Phosphorus Toxicity
French HSA (902.33)	NO LISTINGS	NOT APPLICABLE	NO LISTINGS	NOT APPLICABLE	Warm Springs Creek	Chlorpyrifos E. Coli Fecal Coliform Iron Manganese Phosphorus Total Nitrogen as N

FINDINGS C

Comparison of Riverside County 303(d) Listings (Cont'd)

Watershed ¹	2002 303(d) List		2006 303(d) List		2008 303(d) List ²	
	Listed Water Body	Impairing Pollutants	Listed Water Body	Impairing Pollutants	Listed Water Body	Impairing Pollutants
Gertrudis HSA (902.42)	NO LISTINGS	NOT APPLICABLE	NO LISTINGS	NOT APPLICABLE	Santa Gertrudis Creek	Chlorpyrifos Copper E. Coli Fecal Coliform Iron Phosphorus
Pauba HSA (902.51)	NO LISTINGS	NOT APPLICABLE	Temecula Creek	TDS Phosphorus Nitrogen	Temecula Creek	Chlorpyrifos Copper Phosphorus TDS Toxicity
	NO LISTINGS	NOT APPLICABLE	NO LISTINGS	NOT APPLICABLE	Redhawk Channel	Chlorpyrifos Copper Diazinon E. Coli Fecal Coliform Iron Manganese Nitrogen Phosphorus TDS
Wolf HSA (902.52)	Murrieta Creek	Phosphorus	Murrieta Creek	Phosphorus	Murrieta Creek	Chlorpyrifos Copper Iron Manganese Nitrogen Phosphorus Toxicity

Notes:

1. Hydrologic subarea (HSA) within the Santa Margarita Hydrologic Unit (HU), located in the Riverside County portion of the San Diego Basin.
2. Water bodies and pollutants on the 2008 303(d) List were approved by the San Diego Water Board on December 18, 2009 and by the State Water Board on August 4, 2010, and are awaiting final approval by the USEPA.

Finding C.8. Trash is a persistent pollutant which can enter receiving waters from the MS4, accumulate and be transported downstream into receiving waters over time. Trash poses a serious threat to the beneficial uses of the receiving waters, including, but not limited to, human health, rare and endangered species, navigation and human recreation.

Discussion of Finding C.8. The Copermittees to date have documented high volumes of trash coming from the MS4 system and in receiving waters.⁴²

The Basin Plan specifies the following narrative Water Quality Objective (WQO) for Floating Material:

“Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.”

The Basin Plan specifies the following narrative WQO for Suspended and Settleable Solids: Material:

“Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.”

Additionally, high density urban areas in Southern California have been shown to be responsible for up to 60 percent of the trash that enters receiving waters from the MS4.⁴³ The retrofitting of existing MS4 systems, such as catch basins, in targeted high trash areas can result in significant reductions in the amount of trash entering receiving waters from the MS4.

Trash, as litter in both solid and liquid form, is consistently found on and adjacent to roadways. A California Department of Transportation Litter Management Pilot Study found that of roadway trash, plastics and Styrofoam accounted for 33 percent of trash by weight, and 43 percent by volume. Further, the study found that approximately 80 percent of the litter associated with roadways was floatable, indicating that, without capture, this litter would enter Waters of the State after a storm event, resulting in the impairment of Beneficial Uses.⁴⁴ The study, however, relied upon a mesh capture size of 0.25 inches (6.35 millimeters). This size is too large to effectively capture plastic pre-production pellets (a.k.a. “nurdles”), which are roughly 3 mm in size, and likely underestimated the total contribution of plastics. Furthermore, pre-production plastic pellets, which are small enough to be easily digested, have been found to carry persistent organic pollutants, including PCBs and DDT.⁴⁵

⁴² Fiscal Year 2008-2009 Santa Margarita Watershed Annual Report

⁴³ The City of Los Angeles Meets Trash TMDLs Compliance with CB Inserts and Opening Covers. August 06, 2008.

⁴⁴ California Department of Transportation District 7 Litter Management Pilot Study. June 26, 2000.

⁴⁵ Rios, L.M., Moore, C. and Patrick R. Jones. 2007. Persistent organic pollutants carried by synthetic polymers in the ocean environment. *Marine Pollution Bulletin*. Vol. 54.

Finding C.9. The Copermittees' water quality monitoring data submitted to date documents persistent violations of Basin Plan water quality objectives for various runoff-related pollutants (indicator bacteria, dissolved solids, turbidity, metals, pesticides, etc.) at various watershed monitoring stations. Persistent toxicity has also been observed at some watershed monitoring stations. In addition, bioassessment data indicate that the majority of the monitored receiving waters have Poor to Very Poor IBI ratings. In sum, the above findings indicate that runoff discharges are causing or contributing to water quality impairments, and are a leading cause of such impairments in Riverside County.

Discussion of Finding C.9. The Copermittees have produced data that demonstrates water quality objectives are frequently not met during dry and wet weather. The 2009 Report of Waste Discharge and the 2008-2009 Annual Reports document that receiving water monitoring stations often fail to meet water quality objectives established in the Basin Plan.

Water quality in receiving waters downstream of MS4 discharges fail to meet California Toxics Rule standards⁴⁶ and Basin Plan objectives. Data submitted in the MS4 Annual Reports indicate that at various times chemical, bacteria, pesticide, and metal concentrations may exceed water quality objectives in receiving waters in both wet and dry weather conditions.

There are no other significant NPDES permitted discharges to the creeks. For instance, there are no live-stream discharges of treated waste water in the Riverside County area of the Santa Margarita watershed. The few NPDES permits in the watershed are mainly for recycled water which only discharges occasionally during the rainy season. Because the water quality monitoring indicates exceedances of water quality standards and MS4 discharges are the main source of pollutants in the watersheds, it can be inferred that the MS4 discharges are causing or contributing to water quality impairments, and are a leading cause of such impairments in Riverside County.

Finding C.10. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed area is significantly greater in runoff volume, velocity, and peak flow rate than pre-development runoff from the same area. Runoff durations can also increase as a result of flood control and other efforts to control peak flow rates. Increased volume, velocity, rate, and duration of runoff greatly accelerate the erosion of downstream natural channels. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 3-5 percent conversion from natural to impervious surfaces. The increased runoff characteristics from new development must be controlled to protect

⁴⁶ The California Toxics Rule criteria promulgated by the USEPA are directly applicable water quality standards for certain priority toxic pollutants in inland surface waters and enclosed bays and estuaries in California.

against increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive force.

Finding C.11. Development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the MS4. As a result, the runoff leaving the developed area is significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must be controlled to protect downstream receiving water quality.

Discussion of Findings C.10 and C.11. The Natural Resources Defense Council (NRDC) 1999 Report, "*Stormwater Strategies, Community Responses to Runoff Pollution*" identifies two main causes of the storm water pollution problem in developed areas. Both causes are directly related to development:

1. Increased volume and velocity of surface runoff. There are three types of human-made impervious covers that increase the volume and velocity of runoff: (i) rooftop, (ii) transportation imperviousness, and (iii) non-porous (impervious) surfaces. As these impervious surfaces increase, infiltration will decrease, forcing more water to run off the surface, picking up speed and pollutants.
2. The concentration of pollutants in the runoff. Certain industrial, commercial, residential and construction activities are large contributors of pollutant concentrations in storm water runoff. As human population density increases, it brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc.

As a result of these two causes, runoff leaving developed areas is significantly greater in volume, velocity, and pollutant load than pre-development runoff from the same area.

By accommodating the traditional approach to storm water management, development has also altered the flow regime (rate, magnitude, frequency, timing, and flashiness of runoff) that supports aquatic and riparian habitats. These hydrologic changes are driven by the loss of water storage capacity in the watersheds,⁴⁷ and exacerbated by physical alterations of the stream channel network.⁴⁸ This relationship between development and stream channel integrity has been documented nationally and in southern California. The Copermitttees support these findings in their 1993 DAMP,⁴⁹ which states:

⁴⁷ Konrad, Christopher P. and Derek K. Booth, 2005. *Hydrologic Changes in Urban Streams and Their Ecological Significance*. American Fisheries Society Symposium Vol.47 pp.157-177.

⁴⁸ Poff, N.L. et al. 1997. The Natural Flow Regime: A paradigm for river conservation and restoration. *Bioscience* Vol. 47, No. 11, pp.769-784.

⁴⁹ Riverside County Copermitttees. 1993. Santa Margarita Regional Drainage Area Management Plan.

“Many storm water runoff problems are primarily a consequence of urbanization. Water that previously soaked into the ground, removing pollutants by filtering through soil, and eventually replenishing groundwater supplies, now must flow overland and therefore enters local streams more rapidly. The rapid transport of water increases the erosion of stream banks and hillsides and does not permit filtering pollutants. Sediment carried by storm water runoff can build up in streambeds, harming fish and aquatic habitat. The sediment acts as a transport mechanism for pollutants which adhere to soil particles. Typical urban runoff pollutants found in surface waters include heavy metals, nutrients, petroleum products, sediment, bacteria, chemicals, and litter.”

Hydrologic changes from development also directly and indirectly adversely affect wetlands. Natural wetlands support many beneficial uses and provide important water-quality related ecological services, including pollutant removal, flood attenuation, and groundwater recharge.⁵⁰ The Center for Watershed Protection recently provided USEPA with a synthesis of more than 100 scientific studies on the direct and indirect impacts of development, particularly urbanization, on wetlands and the role wetlands play in watershed quality. The report found that the three changes from land development with the most potential to impact wetlands include: Increased storm water runoff; decreased groundwater recharge; and flow constriction.⁵¹ Each of these changes can often be avoided or minimized by implementing low impact development (LID) and hydromodification BMPs.

When Order No. R9-2004-001 was adopted, studies had shown that the level of imperviousness in an area strongly correlates with the quality of nearby receiving waters.⁵² One comprehensive study, which looked at numerous areas, variables, and methods, revealed that stream degradation occurs at levels of imperviousness as low as 10 – 20 percent.⁵³ Stream degradation is a decline in the biological integrity and physical habitat conditions that are necessary to support natural biological diversity. For instance, few urban streams can support diverse benthic communities with imperviousness greater than or equal to 25 percent.⁵⁴ To provide some perspective, a medium density, single-family home area can be from 25 percent to 60 percent impervious (variation due to street and parking design).⁵⁵

More recently, a report on the effects of impervious in southern California streams found that local ephemeral and intermittent streams are more sensitive to such effects than streams in other parts of the country. This study, by the Southern California

⁵⁰ Wright, Tiffany, et al. 2006. “Direct and Indirect Impacts of Urbanization on Wetland Quality.” Prepared by the Center for Watershed Protection. Available at: <http://www.cwp.org>. 81p.

⁵¹ Ibid p.26

⁵² USEPA, 1999. Part II. 40 CFR Parts 9, 122, 123, and 124. National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. Federal Register.

⁵³ Ibid.

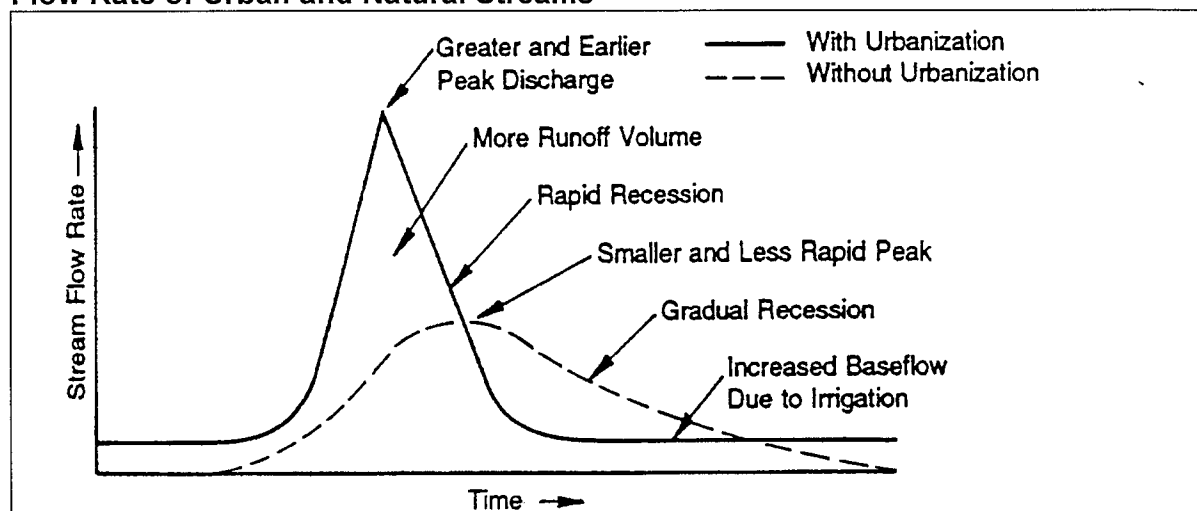
⁵⁴ Ibid.

⁵⁵ Schueler, T.R., 1994. The Importance of Imperviousness. Watershed Protection Techniques. As cited in 64 FR 68725.

Coastal Water Research Program, estimated a threshold of response at a two to three percent change in percent of impervious cover in a watershed.⁵⁶ This threshold is lower than the previously reported estimates by the USEPA that were cited in the Fact Sheet for Order No. R9-2004-001.

To demonstrate the principle of increased volume and velocity of runoff from urbanization, the figure below shows the flow rate of an urban vs. a natural stream. What the figure demonstrates is that urban stream flows have greater peaks and volumes, as well as shorter retention times than natural stream flows. The greater peak flows and volumes result in stream degradation through increased erosion of stream banks and damage to aquatic habitat. The shorter retention times result in less time for sediments and other pollutants to settle before being carried out to the ocean. This sediment, and the associated pollutants it carries, can be a significant cause of water quality degradation.

Flow Rate of Urban and Natural Streams⁵⁷



Increased volume and velocity of runoff adversely impacts receiving waters and their beneficial uses in many ways. According to the Urban Runoff TAC report,⁵⁸ increases in population density and imperviousness result in changes to stream hydrology including:

1. Increased peak discharges compared to pre-development levels;
2. Increased volume of storm water runoff with each storm compared to pre-development levels;

⁵⁶ Coleman, Derrick, et al. 2005. *Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams*. Technical Report No. 450 of the Southern California Coastal Water Research Project.

⁵⁷ Adapted from Schueler, T.R., 1987. *Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs*. Metropolitan Washington Council of Governments.

⁵⁸ State Water Board, 1994. *Urban Runoff Technical Advisory Committee Report and Recommendations*. Nonpoint Source Management Program.

3. Decreased travel time to reach receiving water; increased frequency and severity of floods;
4. Reduced stream flow during prolonged periods of dry weather due to reduced levels of infiltration;
5. Increased runoff velocity during storms due to a combination of effects of higher discharge peaks, rapid time of concentration, and smoother hydraulic surfaces from channelization; and
6. Decreased infiltration and diminished ground water recharge.

Even though the rainfall depths in arid watersheds are lower, watershed development can greatly increase peak discharge rates during rare flood events.⁵⁹ A study conducted in arid watersheds around Riverside, CA showed that, over two decades, impervious cover increased from 9 percent to 22 percent, which resulted in an increase of more than 100 percent in the peak flow rate for the two-year storm event. The study also showed that the average annual storm water runoff volume had increased by 115 percent to 130 percent over the same time span.⁶⁰

Flooding caused by the increased volume and velocity of runoff from urbanization in the upper Santa Margarita watershed are clear examples of the effects described above. Disastrous flooding has occurred more frequently in recent years. In the last century, flood events occurred in 1938, 1969, 1980, 1993, 1995, and 1998.⁶¹ In the 1993 flood event, the Cities of Murrieta and Temecula sustained \$12 million dollars in damage, and Camp Pendleton sustained \$88 million in damage. Future flooding is expected to occur more frequently because of continued urban development within the watershed, and flood damages are expected to continue accruing at an estimated annual rate of \$1,780,300.

Prior hydromodification studies in California have shown that the increase in impervious cover, and thus change in runoff volume, velocity, rate, and duration, results in a shift in the range of storms that produce geomorphically significant flows within receiving waters (see above discussion). Additionally, studies in California have determined that ninety percent of the geomorphic "work" done within channels receiving flows from developed areas now occurs from flows below the 10 year peak flow event.⁶²

This increased volume, velocity, rate, and duration of runoff greatly accelerates the erosion of the beds and banks within downstream receiving waters. Additionally, storm water flows which runoff directly from impervious surfaces into the MS4 and thus receiving waters prevent the associated runoff of natural sediments which would occur in pre-project conditions. This combined alteration of the physical condition of storm water runoff results in accelerated downstream erosion of receiving water bed and

⁵⁹ Schueler and Holland, 2000. Storm Water Strategies for Arid and Semi-Arid Watersheds (Article 66). The Practice of Watershed Protection. P. 695-706.

⁶⁰ Ibid.

⁶¹ U.S. Army Corps of Engineers, 2000. Final EIS/EIR, Murrieta Creek Flood Control Project.

⁶² Santa Clara Valley Hydromodification Management Plan. April 21, 2005.

banks. The excessive erosion of stream beds and banks releases pollutants found in soils into receiving waters, degrades macroinvertebrate habitat (see D.2.c), eliminates spawning habitat, reduces associated wetland and riparian habitat, and threatens existing infrastructure adjacent to receiving waters. Bank sloughing within creeks and streams increases the pollutant loading to those receiving waters, particularly for turbidity and phosphorous.⁶³ In arid environments, accelerated channel erosion has been shown to have synergistic impacts within watersheds. Increased channel erosion within Las Vegas wash has resulted in the loss of over 1,000 acres of wetland and riparian habitat, released additional pollutants into downstream receiving waters, and eliminated in-stream habitat and water quality conditions required for existing threatened and endangered species.⁶⁴

Regarding the impact of development on storm water runoff pollutant loads, the San Diego Water Board's Basin Plan states:

Nonpoint source pollution is primarily the result of man's uses of land such as urbanization, roads and highways, vehicles, agriculture, construction, industry, mineral extraction, physical habitat alteration (dredging/filling), hydromodification (diversion, impoundment, channelization), silviculture (logging), and other activities which disturb land.⁶⁵ As a result, when rain falls on and drains through urban freeways, industries, construction sites, and neighborhoods it picks up a multitude of pollutants. The pollutants can be dissolved in the runoff and quickly transported by gravity flow through a vast network of concrete channels and underground pipes referred to as storm water conveyance systems. Such systems ultimately discharge the polluted runoff, without treatment, into the nation's creeks, rivers, estuaries, bays, and oceans.⁶⁶

According to the Center for Watershed Protection, urbanization strongly shapes the quality of both surface and ground water in arid and semi-arid regions of the southwest. Since rain events are so rare, pollutants have more time to build up on impervious surfaces compared to humid regions. Therefore, the pollutant concentrations of storm water runoff from arid watersheds tend to be higher than that of humid watersheds.⁶⁷ The effect of antecedent rainfall events is demonstrated in a report from the California Department of Transportation (Caltrans) that found the concept of a seasonal first flush is applicable to the southern California climate.⁶⁸

⁶³ Sekely, A.C., Mulla, D.J. and D.W. Bauer. 2002. Streambank slumping and its contribution to the phosphorus and suspended sediment loads of the Blue Earth River, Minnesota. *Journal of Soil and Water Conservation*. September 2002 vol. 57 no. 5 243-250.

⁶⁴ Tuttle, P.L. and E.L. Orsak. 2002. Las Vegas Wash Water Quality and Implications to Fish and Wildlife. U.S. Fish and Wildlife Service.

⁶⁵ San Diego Water Board, 1994. Water Quality Control Plan for the San Diego Basin. P. 4-66.

⁶⁶ Ibid. P. 4-69 - 4-70.

⁶⁷ Schueler and Holland, 2000. Storm Water Strategies for Arid and Semi-Arid Watersheds (Article 66). The Practice of Watershed Protection. P. 695-706.

⁶⁸ Stenstrom, Michael and Masoud Kayhanian, 2005. *First Flush Phenomenon Characterization*. Prepared for Caltrans. Report No. CTSW-RT-05-73-02.6 Study jointly performed by UCLA and UCD. Most of the data presented was collected from three highly urbanized highway sites in west Los Angeles. Much effort went into developing a quantitative way of defining the mass first flush. Other aspects include: variability of water quality during storm events, litter characteristics, correlation among constituents, first flush of organics and particle size

Finding C.12. Development and urbanization especially threaten environmentally sensitive areas (ESAs), such as water bodies designated as supporting a RARE beneficial use (supporting rare, threatened or endangered species) and CWA 303(d)-impaired water bodies. Such areas have a much lower capacity to withstand pollutant loads than other, more sensitive areas. In essence, development that is ordinarily insignificant in its impact on the environment may become significant in a particularly sensitive environment. Therefore, additional controls to reduce storm water pollutants from new and existing development may be necessary for areas adjacent to or discharging directly to an ESA.

Discussion of Finding C.12. ESAs are defined in the Order as “Areas that include but are not limited to all CWA section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the Basin Plan; water bodies designated with the RARE beneficial use by the Basin Plan; areas designated as preserves or their equivalent under the Natural Communities Conservation Program within the Cities and County of Riverside; and any other equivalent environmentally sensitive areas which have been identified by the Copermitees.”

Areas that meet this definition are inherently sensitive habitats containing unique, rare, threatened, or endangered species, or are not achieving their designated beneficial uses. As discussed above, runoff is known to contain a wide range of pollutants and has demonstrated toxicity to plants and animals. Therefore, it is necessary to apply additional storm water controls for developments within, adjacent to, or directly discharging to ESAs. This need for additional storm water controls is addressed within each component of the Order. USEPA supports the requirement for additional storm water controls, stating “For construction sites that discharge to receiving waters that do not support their designated use or other waters of special concern, additional construction site controls are probably warranted and should be strongly considered.”⁶⁹ Further support for requiring additional controls to reduce pollutants in storm water discharges to ESAs can be found in *Mitigation of Storm Water Impacts From New Developments in Environmentally Sensitive Areas*, a technical report written by the Los Angeles Water Board.⁷⁰

Finding C.13. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not “inject” runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; (3) protecting footings and foundations; (4)

distribution, new methods for measuring oil and grease, and grab and composite sampling strategies. The report is available on-line at: <http://www.dot.ca.gov/hq/env/stormwater/special/newsetup/>

⁶⁹ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. Washington D.C. EPA/833-B-92-002.

⁷⁰ Los Angeles Water Board, 2001. *Mitigation of Storm Water Impacts From New Developments In Environmentally Sensitive Areas*.

ensuring that each drainage feature is adequately maintained in perpetuity; and (5) pretreatment.

Discussion of Finding C.13. Infiltration is an effective means for managing runoff. However, measures must be taken to protect groundwater quality when infiltration of runoff is implemented. USEPA supports runoff infiltration and provides guidance for protection of groundwater: "With a reasonable degree of site-specific design considerations to compensate for soil characteristics, infiltration may be very effective in controlling both urban runoff quality and quantity problems. This strategy encourages infiltration of urban runoff to replace the natural infiltration capacity lost through urbanization and to use the natural filtering and sorption capacity of soils to remove pollutants; however, the potential for some types of urban runoff to contaminate groundwater through infiltration requires some restrictions."⁷¹ The restrictions placed on runoff infiltration in this Order are based on recommendations provided by the USEPA Risk Reduction Engineering Laboratory. The State Water Board found in Order WQ 2000-11 on the appeal of the Los Angeles Water Board's Standard Urban Storm Water Mitigation Plan (SUSMP) requirements that the guidance provided in the above referenced document by the USEPA Risk Reduction Engineering Laboratory is sufficient for the protection of groundwater quality from runoff infiltration. To further protect groundwater quality, the Order also includes guidance from the Los Angeles Water Board,⁷² the State of Washington,⁷³ and the State of Maryland.⁷⁴ Subsequently, the California Storm Water Quality Association (CASQA) has produced technical guidance for post-construction treatment BMPs to protect ground water quality⁷⁵.

Finding C.14. Non-storm water (dry weather) discharge from the MS4 is not considered a storm water (wet weather) discharge and therefore is not subject to regulation under the Maximum Extent Practicable (MEP) standard from CWA 402(p)(3)(B)(iii), which is explicitly for "Municipal ... *Stormwater Discharges* (emphasis added)" from the MS4. Rather, non-storm water discharges into the storm sewers, per CWA 402(p)(3)(B)(ii), are to be effectively prohibited. Such dry weather non-storm water discharges have been shown to contribute significant levels of pollutants and flow in arid, developed Southern California watersheds and are to be effectively prohibited under the CWA.

⁷¹ USEPA, 1994. Potential Groundwater Contamination from Intentional and Nonintentional Stormwater Infiltration. EPA 600 SR-94 051.

⁷² Los Angeles Water Board, 2000. Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County.

⁷³ Washington State Department of Ecology, 1999. Draft Stormwater Management in Washington State. Volume V – Runoff Treatment BMPs. Pub. No. 99-15.

⁷⁴ Maryland Department of the Environment, 1999. 2000 Maryland Stormwater Design Manual. Volume I.

⁷⁵ CASQA. The New Development and Redevelopment Handbook, 2003. Available on-line at <http://www.cabmphandbooks.org/Development.asp>

Discussion of Finding C.14.

Permitting Framework

The CWA prohibits the discharge of any pollutant from a point source into waters of the United States unless the discharger of the pollutant(s) obtains a NPDES permit pursuant to CWA section 402. The discharge of storm water and/or non-storm water from an MS4 system is considered a discharge from a point source. As discussed below, however, the CWA regulates storm water and non-storm water discharges under different standards.

In 1987 the CWA was amended to include provisions that specifically concerned NPDES permitting requirements for storm water discharges from MS4 systems. Section 402(p) of the CWA regulates the discharge of storm water from a point source, the municipal separate storm sewers. Such discharges of storm water are subject to the maximum extent practicable (MEP) storm water standard and the related iterative process. The MEP standard for storm water discharges reflects Congress' recognition that the variability of flow and intensity of storm events render difficult strict compliance with water quality standards by MS4s. However, this standard was not considered applicable to non-storm water discharges, which under 402(p) are required to be effectively prohibited from entering the MS4. Clearly, if non-storm water discharges must be effectively prohibited from entering the MS4, the very next requirement (402(p)(3)(B)(iii)) requiring discharges from the MS4 be reduced to the MEP intends that the discharge of pollutants be limited to storm water. Unless exempt or authorized under a separate NPDES permit, non-storm water discharges are not authorized to enter the MS4 in the first instance and are considered to be illicit discharges.

The Federal Register further clarifies that such discharges through an MS4 are not authorized under the CWA (55 Federal Register (FR) 47995):

"Today's rule defines the term "illicit discharge" to describe any discharge through a municipal separate storm sewer system that is not composed entirely of storm water and that is not covered by an NPDES permit. Such illicit discharges are not authorized under the Clean Water Act. Section 402(p)(3)(B) requires that permits for discharges from municipal separate storm sewers require the municipality to "effectively prohibit" non-storm water discharges from the municipal separate storm sewer... Ultimately, such non-storm water discharges through a municipal separate storm sewer must either be removed from the system or become subject to an NPDES permit."

The federal regulations (40 CFR 122.26(d)(vi)(2)(B)) require that the municipal separate storm sewer discharger prohibit "through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer." As owners and operators of the MS4, Copermitttees cannot passively receive discharges from third parties (Federal Register 68766) and thus are responsible for the discharge of any non-storm water from their MS4.

The State Water Board recently recognized in order (Order WQ 2009-0008) that “[n]either the Clean Water Act nor the federal storm water regulations define ‘non-storm water.’ ‘Illicit discharge’ is defined as any discharge to an MS4 ‘not composed entirely of storm water.’ Thus, ‘illicit discharge’ is the most nearly applicable definition of ‘non-storm water’ found in federal law and is often used interchangeably with that term.”⁷⁶ In July 2010, the court in *Los Angeles County v. State Water Resources Control Board* remanded the Los Angeles Water Board’s MS4 permit underlying Order WQ 2009-0008 for procedural reasons occurring during the permit adoption process. The court did not evaluate or rule upon the substantive findings and reasoning set forth in Order WQ 2009-0008. The State Water Board rescinded and voided Order WQ 2009-0008 to comply with the court’s order. While the San Diego Water Board may no longer cite Order WQ 2009-0008, the San Diego Water Board has independently considered whether the requirement to eliminate non-stormwater discharges is subject to the MEP standard. The San Diego Water Board concludes that the MEP standard does not apply to non-stormwater discharges for the same reasons expressed by the State Water Board.

Storm Water and Non-storm Water Definitions

By definition non-storm water is not precipitation related. 40 CFR 122.26(b)(13) states that: “Storm water means storm water runoff, snowmelt runoff, and surface runoff and drainage.” While “surface runoff and drainage” is not defined in federal law, it is related to precipitation events such as rain and/or snowmelt (see 55 FR 47995-96). The term “surface runoff and drainage” does not include all incidental flows in the MS4 system, but consists of flows relating to precipitation events as clarified by the Federal Register, USEPA’s documents and permitting, and other Regional Water Board Orders.

The Federal Register (55 FR 47995-47996) provides clarification on the distinction between storm water and non-storm water discharges, including their regulation:

“In response to the comments which requested EPA to define the term storm water broadly to include a number of classes of discharges **which are not in any way related to precipitation events, EPA believes that this rulemaking is not an appropriate forum for addressing the appropriate regulation of such non-storm water discharges**, even though some classes of non-storm water discharges may typically contain only minimal amounts of pollutants. Congress did not intend that the term storm water be used to describe any discharge that has a de minimis amount of pollutants, not did it intend for section 402(p) to be used to provide a moratorium from permitting other non-storm water discharges.”

As recently recognized by the State Water Board in a precedential decision upholding an MS4 permit modification adopted by the Los Angeles Water Board, “U.S. EPA has previously rejected the notion that ‘storm water,’ as defined at 40 Code of Federal

⁷⁶ State Water Board Order WQ-2009-0008 (*In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District*, adopted August 4, 2009), p. 4.

Regulations section 122.26(b)(13), includes dry weather flows. In U.S. EPA's preamble to the storm water regulations, U.S. EPA rejected an attempt to define storm water to include categories of discharges 'not in any way related to precipitation events.'⁷⁷ Thus, USEPA has made it clear that it deems discharges unrelated to precipitation events to be non-storm water discharges. 40 CFR 122.26(d)(iv)(B) itself provides specific examples of non-storm water discharges:

“...the following category of non-storm water discharges or flows shall only be addressed where such discharges are identified by the municipality as sources of pollutants to the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20) to separate storm sewers, uncontaminated pumped groundwater,...”

USEPA also removed street wash waters from the definition of storm water, as USEPA specifically identified this discharge as being non-storm water (55 FR page 47996). Additionally, section 1.2.2.2 of USEPA's Multi-Sector General Permit for Industrial Activities (MSGP-2000) considers fire hydrant flushings, irrigation drainage, landscape watering, and foundation or footing drains to be non-storm water discharges. USEPA's September 1999 Storm Water Management Fact Sheet for Non-Storm Water Discharges to Storm Sewers states that non-storm water discharges can include discharges of process water, air conditioning condensate, non-contact cooling water, vehicle wash water, or sanitary wastes.

While these types of non-storm water discharges (or illicit discharges) may be regulated under storm water permits because as a practical matter they can enter and be discharged from the MS4 systems, they are not regulated as storm water discharges under the CWA because they are unrelated to precipitation events. As indicated above, the State Water Board's recent discussion of this issue supports the conclusion that non-storm water discharges are unrelated to precipitation events. In its Order affirming amendments to the Los Angeles County MS4 permit to implement a TMDL to control bacteria in dry weather flows, the State Water Board rejected petitioners County of Los Angeles and the Los Angeles County Flood Control District implied assertion that the definition of “storm water” contained in the federal regulations (defined as “surface run-off and drainage”) includes the run-off and drainage from non-storm events. The State Water Board notes that the challenged permit provisions do not apply to storm water flows in that they apply only during dry weather conditions as defined in the permit. In upholding the challenged order, the State Water Board notes that the Los Angeles Water Board's permit language followed USEPA's approach, referring to USEPA's rejection of attempts to define storm water to include categories of discharges “not in any way related to precipitation events.”⁷⁸

⁷⁷ State Water Board Order WQ-2009-0008 (*In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District*, adopted August 4, 2009), p. 7.

⁷⁸ State Water Board Order WQ-2009-0008 (*In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District*, adopted August 4, 2009), p. 7 (quoting 55 FR 47990, 47995).

Lastly, the San Diego Water Board and State Water Board have issued multiple, separate NPDES permits for non-storm water discharges, including, but not limited to, San Diego Water Board Order No. R9-2008-0002 (extracted groundwater), San Diego Water Board Order No. R9-2002-0020 (hydrostatic discharge), and State Water Board Order No. 2006-0008-DWQ (utility vaults), pursuant to section 402 of the CWA.

Permitting Non-storm Water Discharges

Non-storm water discharges may contain pollutants which result from various activities that occur within areas draining into the MS4. This includes, but is not limited to, illicit discharges and connections, exempted categories of discharge not a source of pollutants (40 CFR 122.26(d)), and discharges into the MS4 covered under a separate NPDES permit. As such, existing and proposed discharges of non-storm water from MS4s:

- a) Result from similar activities through the MS4 system;
- b) Are the same type of water;
- c) Require similar action levels for the protection of the Beneficial Uses of the receiving waters;
- d) Require similar monitoring;
- e) Are under the passive control of the owner and operator of the MS4 system;
and
- f) Are more appropriately regulated under a general permit than individual permits.

The U.S. EPA's approach (and the San Diego Water Board's under its approved program) for non-storm water discharges from MS4s is to regulate these discharges under the existing 402 NPDES framework (FR 47995 and 48037 see below) for discharges to surface waters. The NPDES program (40 CFR 122.44(d)) utilizes discharge prohibitions and effluent limitations as regulatory mechanisms to regulate non-storm water discharges, including the use of technology and water quality-based effluent limitations. Non-numerical effluent limitations, such as BMPs for non-storm water discharges may only be authorized where numerical effluent limits are infeasible or where the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA (40 CFR 122.44(k) see below).

The Federal Register (55, page 48037) provides clarification that non-storm water discharges from the MS4 are to be regulated under section 402, not 402(p):

"Conveyances which continue to accept other "non-storm water" discharges (e.g. discharges without an NPDES permit) with the exceptions noted above (*exempted discharges that are not a source of pollutants*) do not meet the definition of municipal separate storm sewer and are not subject to 402(p)(3)(B) of the CWA unless such discharges are issued separate NPDES permits. Instead, conveyances which continue to accept non-storm water discharges

which have not been issued separate NPDES permits are subject to sections 301 and 402 of the CWA.”

This regulatory approach is consistent with the approach recently upheld by the State Water Board in a precedential order adopted on August 4, 2009. In this Order, the State Water Board rejected a challenge to amendments to the Los Angeles County MS4 permit that require compliance with receiving water limitations and discharge prohibitions for dry weather, non-storm water discharges. Petitioners there argued that the receiving water limits and discharge prohibitions for dry weather dischargers were inappropriate and that the Los Angeles Water Board should instead have regulated the discharges with the maximum extent practicable standard, through an iterative process. The State Water Board concludes that dry weather discharges, as defined in the permit and in the underlying TMDL, “are more appropriately regarded as non-storm water discharges, which the Clean Water Act requires to be effectively prohibited.”⁷⁹

As stated above, for NPDES permits under 402 of the CWA, the Code of Federal Regulations (122.44(k)) clarify that a discharger may utilize BMPs to control or abate the discharge of pollutants when:

- “(1) Authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities;
- (2) Authorized under section 402(p) of the CWA for the control of storm water discharges;
- (3) Numeric limits are infeasible; or
- (4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.”

For the last 20 years, Riverside County NPDES permits for discharges of storm water have regulated non-storm water discharges from the MS4. These permits required Copermittees (dischargers) to prohibit non-storm water discharges into (thus through and from) their MS4 systems, implement a program to prevent illicit discharges, and monitor to identify illicit discharges and exempted discharges that are a source of pollution. These measures are considered Best Management Practices (BMPs), are required to be included in NPDES permits issued under section 402(p) of the CWA, and are considered by USEPA to be an interim approach to permitting non-storm water discharges from the MS4 in accordance with section 402 of the CWA and CFR 122.44(k).

As explained in the discussion of Finding C.15., below, the Copermittees’ reliance on BMPs for the past 20 years has not resulted in compliance with applicable water quality standards. The San Diego Water Board has evaluated (in accordance with 40 CFR 122.44(d)(1)) past and existing controls (BMPs), non-storm water monitoring results, the sensitivity of the species in receiving waters (e.g. endangered species),

⁷⁹ State Water Board Order WQ-2009-0008 (*In the Matter of the Petition of County of Los Angeles and Los Angeles County Flood Control District*, adopted August 4, 2009), p. 8

and the potential for effluent dilution, and has determined that existing BMPs to control pollutants in storm water discharges are not sufficient to protect water quality standards in receiving waters and the existing requirement that Copermittees effectively prohibit all types of unauthorized non-storm water discharges into the MS4 historically results in the discharge of pollutants to the receiving waters. Thus, numeric action levels for non-storm water, dry weather, discharges from the MS4 and required actions following observed exceedances of numeric action levels have been established. For further discussion regarding the development of action levels please see Finding E.10 and discussion.

Dry weather action levels are applicable to non-storm water discharges of effluent from the MS4 system. Non-storm water effluent discharges from the MS4 are those which occur during dry weather conditions. These action levels are not applied to storm water discharges, as defined within the Order. Storm water discharges regulated by the Order are required to meet the MEP standard and related iterative process and have separate action levels.

Dry weather action levels are applicable to non-storm water discharges from the MS4 system into receiving waters. Non-storm water discharges are already required to be prohibited unless specifically exempted or covered under a separate NPDES permit. Dry weather action levels apply to non-storm water discharges of effluent from a point source into receiving waters. The MS4 is not a receiving water. Should a discharger wish to discharge a non-exempt category to the MS4 system, such discharges require a separate NPDES permit pursuant to sections 402 and 301 of the CWA. It is also infeasible to monitor and sample every discharge into the MS4, as such discharges are diffuse by nature and may vary spatially and temporally.

Finding C.15. Non-storm water discharges to the MS4 granted an influent exception [i.e. which are exempt from the effective prohibition requirement set forth in CWA section 402(p)(3)(B)(ii)] under 40 CFR 122.26 are included within this Order. Any exempted discharges identified by Copermittees as a source of pollutants are subsequently required to be *addressed* (emphasis added) as illicit discharges through prohibition and incorporation into existing IC/ID programs. Furthermore, the USEPA contemplates that permitting agencies such as the San Diego Water Board may also identify exempted discharges as a source of pollutants required to be addressed as illicit discharges (See Vol. 55 FR 48037). The San Diego Water Board and the Copermittees have identified landscape irrigation, irrigation water and lawn water, previously exempted discharges, as a source of pollutants and conveyance of pollutants to waters of the U.S.

Discussion of Finding C.15. The FR (Vol. 55, page 48037) and 40 CFR 122.26(d)(iv)(B) clarify that certain components and categories of non-storm water discharges into the MS4 are not required to be prohibited. The Code of Federal Regulations requires the discharger have:

“...a program, including inspections, to implement through ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program shall address all types of illicit discharges, however, the following category of non-storm water discharges or flows shall only be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated groundwater infiltration (as defined at 40 CFR 35.2005(20) to separate storm sewers, uncontaminated pumped groundwater,...”

The categories of non-storm water discharges into the MS4, as listed under 40 CFR 122.26(d)(iv)(B), are not required to be prohibited unless identified by the Copermittees as sources of pollutants to waters of the United States. The FR (Vol. 55, page 48037), however, goes on to clarify that:

“However, the Director may include permit conditions that either require municipalities to prohibit or otherwise control any of these types of discharge where appropriate.”

Thus, the Copermittees or the San Diego Water Board may identify any of these categories of non-storm water discharges as a source of pollutants. As such, the identification of any of these categories as a source of pollutants requires them to be addressed as illicit discharges, which are not authorized under the CWA, and are required to be “effectively prohibited” as illicit discharges via ordinance, order or similar means. The prohibition of previously exempted discharges of non-storm water to waters of the United States from entering, and necessarily being discharged from an MS4, conforms with CWA requirements for standards and enforcement for effluent limitations necessary to meet water quality standards (33 U.S.C. 1311(b)(1)(C)).

To date the San Diego Water Board and the Copermittees have identified overspray and drainage from potable and reclaimed water landscape irrigation as a substantial source and conveyance mechanism for pollutants into waters of the United States. Several municipalities throughout the San Diego Region (e.g., cities and counties of Orange County and San Diego County) have reported and/or identified runoff originating from landscape irrigation as potential sources of dry weather flows conveying pollutants into their MS4s. This is also supported by legislation (Assembly Bill 1881) recently enacted by the State of California, which has identified runoff resulting from over irrigation not only as a waste of water resources, but also as a source of pollutants to the state’s waterways.

Irrigation runoff into the MS4, as identified by the San Diego Water Board and the Copermittees, is a source of pollutants to waters of the United States, and is required to be *addressed* (emphasis added) as an illicit discharge per 40 CFR 122.26(d)(2)(iv)(B)(1) by prohibition through implementing and enforcing an ordinance, order or similar means. The San Diego Water Board and the Copermittees have identified irrigation water as a source of pollutants and conveyance of pollutants to waters of the United States, when

applied improperly in excess and thereafter entering the MS4, in the following documents:

- The Cities and County of Riverside “Only Rain in the Storm Drain” Pollution Prevention Program identifies runoff from irrigation as a source of pollutants to waters of the United States in the following documents:

1) The Landscape and Garden public education brochure states:

“Soil, yard wastes, over-watering [emphasis added] and garden chemicals become part of the urban runoff mix that winds it way through streets, gutters and storm drains before entering lakes, rivers, streams, etc.”

2) In a survey distributed at public outreach events,⁸⁰ the answer to the question about where lawn irrigation water goes states:

“Water that leaves your lawn from irrigation...can pick up motor oil and grease from vehicles, excess fertilizer from your lawn, bacteria from pet waste, and excess pesticides from your yard. These pollutants can be carried down streets and storm drains directly to our streams, lakes and rivers without treatment!”

- In 2006, the State Water Board allocated Grant funding to the **SmartTimer/Edgescape Evaluation Program (SEEP)**. The project targets irrigation runoff by retrofitting existing development and documenting the conservation and runoff improvements. The Grant Application states that:

“Irrigation runoff contributes flow & pollutant loads to creeks and beaches that are 303(d) listed for bacteria indicators.”

Furthermore, the grant application states:

“Regional program managers agree that the reduction and/or elimination of irrigation-related urban flows and associated pollutant loads may be key to successful attainment of water quality and beneficial use goals as outlined in the San Diego Basin Plan and Bacteria TMDL over the long term.”

This is reinforced in the project descriptions and objectives:

“Elevated dry-weather storm drain flows, composed primarily ... of landscape irrigation water wasted as runoff, carry pollutants that impair recreational use and aquatic habitats all along Southern California’s

⁸⁰ A copy of the survey was provided in the Riverside County Copermittees’ Report of Waste Discharge, dated January 15, 2009, page 39.

urbanized coastline. Storm drain systems carry the wasted water, along with landscape derived pollutants such as bacteria, nutrients and pesticides, to local creeks and the ocean. Given the local Mediterranean climate, excessive perennial dry season stream flows are an unnatural hydrologic pattern, causing species shifts in local riparian communities and warm, unseasonal contaminated freshwater plumes in the near-shore marine environment”.

The basis of this grant project is that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants. In addition, they indicate that this alteration of natural flows is impacting the Beneficial Uses of Waters of the State and U.S. The results of this study can be applied broadly to any area where over-irrigation takes place, including Riverside County. Preliminary results from the study indicate that that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants.

- Several municipalities in the San Diego Region have identified runoff from irrigation as a source of pollutants to waters of the United States in the following documents:

- 1) The **Watershed Action Plan Annual Report(s)** for the 2006-2007 reporting period was submitted by the County of Orange, Orange County Flood Control District and Copermittees within the San Juan Creek, Laguna Coastal Streams, Aliso Creek, and Dana Point Coastal Streams Watersheds. San Juan Creek, Laguna Coastal Streams, Aliso Creek and Dana Point Coastal Streams are all currently 303(d) listed as impaired for Indicator Bacteria within their watersheds and/or in the Pacific Ocean at the discharge points of their watersheds. The Orange County Copermittees, within their Watershed Action Strategy Table for Fecal Indicator Bacteria:

“Support programs to reduce or eliminate the discharge of anthropogenic dry weather nuisance flow throughout the [...] watershed. Dry weather flow is the transport medium for bacteria and other 303(d) constituents of concern”. Additionally, they state that “conditions in the MS4 contribute to high seasonal bacteria propagation in-pipe during warm weather. Landscape irrigation is a major contributor to dry weather flow, both as surface runoff due to over-irrigation and overspray onto pavements; and as subsurface seepage that finds its way into the MS4.”

- 2) The **Carlsbad Watershed Urban Runoff Management Program (WURMP) Fiscal Year 2008 Annual Report** was submitted by the Carlsbad Watershed Copermittees (Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista, and the County of San Diego). In the WUMRP Annual Report, the Carlsbad

Watershed Copermittees stated the following:

“The Carlsbad Watershed Management Area (WMA) collective watershed strategy identifies bacteria, sediment, and nutrients as high priority water quality pollutants in the Agua Hedionda (904.3 – bacteria and sediment), Buena Vista (904.2 – bacteria), and San Marcos Creek (904.5 – nutrients) Hydrologic Areas. Bacteria, sediment, and nutrients have been identified as potential discharges from over-irrigation.”

- 3) The **San Diego Bay Watershed Urban Runoff Management Program (WURMP) 2007-2008 Annual Report** was submitted by the San Diego Bay Watershed Copermittees (Cities of Chula Vista, Coronado, Imperial Beach, La Mesa, Lemon Grove, National City, and San Diego, the County of San Diego, the Port of San Diego, and the San Diego County Airport Authority). In Appendix D of the WURMP Annual Report, titled Likely Sources of Pollutants, the San Diego Bay Watershed Copermittees identified over-irrigation of lawns as a pollutant generating activity from business and/or residential land uses for bacteria, pesticides, and sediment.

Within the reports above, municipalities throughout San Diego and Orange counties have acknowledged that runoff from over-irrigation is a potential or likely source of several types of pollutants to waters of the United States. Because there are landscaped areas in Riverside County that receive irrigation similar to San Diego and Orange counties, runoff from over-irrigation is also a likely source of pollutants to waters of the United States in Riverside County.

- There is statewide recognition of the pollution caused by over-irrigation, and current legislation already requires cities and counties to prohibit over-irrigation. On September 28, 2006 Governor Arnold Schwarzenegger approved Assembly Bill 1881, The Water Conservation in Landscaping Act (AB 1881, Laird). The act requires cities, counties, and charter cities and charter counties, to adopt landscape water conservation ordinances by January 1, 2010. Additionally, the law required the Department of Water Resources (DWR) to prepare a Model Water Efficient Landscape Ordinance for use by local agencies. The Water Efficient Landscape Ordinance was approved by the Office of Administrative Law on September 10, 2009. All local agencies were required to adopt a water efficient landscape ordinance by January 1, 2010. Local agencies could adopt the Water Efficient Landscape Ordinance developed by DWR, or an ordinance considered at least as effective as the Model Ordinance. The Water Efficient Landscape Ordinance includes a requirement that local agencies prohibit runoff from irrigation (§ 493.2):

“(a) Local agencies shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff [emphasis added] from leaving the target landscape due to low head drainage, overspray, or other

similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures. Penalties for violation of these prohibitions shall be established locally.”

- On October 08, 2009, the State of California Department of Water Resources issued a letter to all cities and counties within the State of California giving reminder of required adoption of the Water Efficient Landscape Ordinance. The letter states that:

“Other benefits include reduced irrigation runoff, reduced pollution of waterways, drought resistance, and less green waste.”

- On December 18, 2009, the San Diego Water Board adopted Order No. R9-2009-0002, the fourth-term Orange County permit, which found that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants. Landscape irrigation, irrigation water, and lawn watering were categories removed from the list of non-storm water discharges not prohibited to be discharged into the MS4.

D. Runoff Management Programs

Finding D.1.a. This Order specifies requirements necessary for the Copermitees to reduce the discharge of pollutants in storm water to the MEP. However, since MEP is a dynamic performance standard, which evolves over time as runoff management knowledge increases, the Copermitees' runoff management programs must continually be assessed and modified to incorporate improved programs, control measures, best management practices (BMPs), etc. in order to achieve the evolving MEP standard. Absent evidence to the contrary, this continual assessment, revision, and improvement of runoff management program implementation is expected to ultimately achieve compliance with water quality standards in the Region.

Discussion of Finding D.1.a. Under CWA section 402(p), municipalities are required to reduce the discharge of storm water pollutants from their MS4s to the maximum extent practicable (MEP). MEP is the critical technology-based performance standard that municipalities must attain. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling storm water runoff continues to evolve, so does that which constitutes MEP. Reducing the discharge of storm water pollutants to the MEP requires Copermitees to assess each program component and revise activities, control measures, best management practices (BMPs), and measurable goals, as necessary to meet MEP.

To achieve the MEP standard, municipalities must employ whatever BMPs are technically feasible (i.e. are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing storm water pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

1. Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?
2. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?
3. Public Acceptance: Does the BMP have public support?
4. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?
5. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?

If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive BMPs, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost is prohibitive, it

would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP based solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be easily dismissed. In any case, the burden is on the municipal discharger to comply with its permit. After selecting BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.⁸¹

A definition of MEP is not provided in either the federal statute or in the federal regulations. The final determination regarding whether a municipality has reduced storm water pollutants to the MEP can only be made by the San Diego Water Board or the State Water Board, and not by the municipal discharger. While the San Diego Water Board or the State Water Board ultimately define MEP, it is the responsibility of the Copermittees to initially propose actions that implement BMPs to reduce storm water pollution to the MEP. In other words, the Copermittees' runoff management programs to be developed under the Order are the Copermittees' proposals of MEP. Their total collective and individual activities conducted pursuant to their runoff management programs become their proposal for MEP as it applies both to their overall effort, as well as to specific activities. The Order provides a minimum framework to guide the Copermittees in meeting the MEP standard for storm water.

It is the San Diego Water Board's responsibility to evaluate the proposed programs and specific BMPs to determine what constitutes MEP, using the above guidance and the court's 1994 decision in *NRDC v. California Department of Transportation*, Federal District Court, Central District of California. The federal court stated that a Copermittee must evaluate and implement BMPs except where (1) other effective BMPs will achieve greater or substantially similar pollution control benefits; (2) the BMP is not technically feasible; or (3) the cost of BMP implementation greatly outweighs the pollution control benefits. In the absence of a proposal acceptable to the San Diego Water Board, the San Diego Water Board will define MEP by requiring implementation of additional measures by the Copermittees.

The Copermittees' continual evolution in meeting the MEP standard is expected to achieve compliance with water quality standards. USEPA has consistently supported this expectation. In its Interim Permitting Approach for Water Quality-Based Effluent Limitations (WQBELs) in Storm Water Permits, USEPA states "the interim permitting approach uses best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for attainment of water quality standards."⁸² USEPA reiterated its position in 1999, when it stated regarding the Phase II municipal storm water regulations that "successive iterations of the mix of BMPs and measurable goals will be driven by the objective of assuring maintenance of water quality standards" and "EPA anticipates

⁸¹ State Water Board, 1993. Memo Entitled Definition of Maximum Extent Practicable.

⁸² Federal Register / Vol. 61, No. 166 / August 26, 1996 / P. 43761.

that a permit for a regulated small MS4 operator implementing BMPs to satisfy the six minimum control measures will be sufficiently stringent to protect water quality, including water quality standards [...].”⁸³

The requirements of the Order are expected to achieve compliance with receiving water quality standards. The approach to be used is the continual assessment, revision, and improvement of Copermittee best management practice implementation. This approach is consistent with the CWA and State Water Board guidance. In *Defenders of Wildlife v. Browner* (1999, 197 F. 3d 1035), the United States Court of Appeals for the Ninth Circuit states: “Under 33 U.S.C. section 1342 (p)(3)(B)(iii), the EPA’s choice to include either management practices or numeric limitations in the permits was within its discretion.” In addition, the approach is consistent with State Water Board Order WQ 99-05, which outlines an iterative approach for achieving compliance with water quality standards.

Finding D.1.b. The Copermittees have generally been implementing the Jurisdictional Runoff Management Programs (JRMPs) required pursuant to Order No. R9-2004-001 since July 14, 2005. Prior to that, the Copermittees were regulated by Order No. 98-02 since May 13, 1998. MS4 discharges, however, continue to cause or contribute to violations of water quality standards as evidenced by the Copermittees’ monitoring results.⁸⁴

Discussion of Finding D.1.b. In response to Order No. R9-2004-001, the Copermittees have developed their runoff management programs. In order to implement the plans, the Copermittees have, among other things, developed BMP requirements, improved inter- and intra-governmental coordination, improved training programs, improved illicit discharge detection procedures, and improved their monitoring efforts. Although the programmatic improvements have led to better implementation of BMPs, the Copermittees’ monitoring data demonstrate that additional or revised BMPs are necessary to prevent discharges from MS4s from causing and contributing to violations of water quality standards. A discussion of data collected by the Copermittees is included in the discussion for Finding C.9.

Finding D.1.c. This Order contains new or modified requirements that are necessary to improve Copermittees’ efforts to reduce the discharge of pollutants in storm water runoff to the MEP and achieve water quality standards. Some of the new or modified requirements, such as the revised Watershed Water Quality Workplan (Watershed Workplan) section, are designed to specifically address these high priority water quality problems. Other requirements, such as for unpaved roads, are a result of San Diego Water Board’s identification of water quality problems through investigations and complaints during the previous permit period. Other new or modified requirements address program deficiencies that have been noted during audits, report reviews, and other San Diego Water Board compliance assessment activities.

⁸³ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68753-68754.

⁸⁴ County of Riverside, 2009. Riverside County Municipal Copermittees 2008-09 Annual Storm Water Program Report, Section 11..

Additional changes in the monitoring program provide consistency with the Code of Federal Regulations, USEPA guidance, State Water Board guidance, and the Southern California Monitoring Coalition recommendations.

Discussion of Finding D.1.c. The Copermittees are required to update and expand their runoff management programs on jurisdictional and watershed levels in order to improve their efforts to reduce the contribution of storm water pollutants in runoff to the MEP and meet water quality standards. Changes to Order No. R9-2004-001's requirements have been made to help ensure these two standards are achieved by the Copermittees.

The Orders' jurisdictional requirements have changed based on findings by the San Diego Water Board during typical compliance assurance activities, audits, or receipt of complaints.⁸⁵ Where the audits found common implementation problems, requirements have been altered to better ensure compliance. In addition, the San Diego Water Board conducted reviews of the jurisdictional annual reports submitted by the Copermittees. Updates to the requirements for the Copermittees' programs are also based in part on information found in the Copermittees' ROWD,⁸⁶ requirements that were included in the San Diego and Orange County MS4 permits, and discussions with the Riverside County Copermittees.

To better focus on attainment of water quality standards, the Order's jurisdictional and watershed requirements have been improved. The conditions of the receiving waters now drive management actions, which in turn focus diminishing resources on the highest priority water quality problems within the receiving waters in the watershed. Improvements to jurisdictional and watershed requirements were also made to facilitate a mutually clear understanding of the requirements between the San Diego Water Board and Copermittees.

During the previous permit period, the San Diego Water Board identified, through investigations and complaints, sediment discharges from unpaved roads as a significant source of water quality problems in the Riverside County portion of the San Diego Region. Enforcement and inspection activities conducted by the San Diego Water Board during the previous permit term have found a lack of source control for many unpaved roads within the jurisdiction of the Copermittees. Unpaved roads are a source of sediment that can be discharged in runoff to receiving waters, especially during storm events. Erosion of unpaved roadways occurs when soil particles are loosened and carried away from the roadway base, ditch, or road bank by water, wind, traffic, or other transport means. Exposed soils, high runoff velocities and volumes, sandy or silty soil types, and poor compaction increase the potential for erosion.

Road construction, culvert installation, and other maintenance activities can disturb the soil and drainage patterns to streams in undeveloped areas, causing excess runoff

⁸⁵ Audit reports, report reviews, and inspection reports are available for review at the San Diego Water Board office.

⁸⁶ All significant changes made to the Order's requirements are described and explained in detail in Fact Sheet section IX.

and thereby erosion and the release of sediment. Poorly designed roads can act as preferential drainage pathways that carry runoff and sediment into natural streams, impacting water quality. In addition, other public works activities along unpaved roads have the potential to significantly affect sediment discharge and transport within streams and other waterways, which can degrade the beneficial uses of those waterways.

USEPA also recognizes that discharges from unpaved roads are a threat to water quality. USEPA guidance⁸⁷ emphasizes the threat of unpaved roads to water quality:

“Dirt and gravel roads are a major potential source of these pollutants [sediment] and pollutants that bind to sediment such as oils, nutrients, pesticides, herbicides, and other toxic substances]. Many roads have unstable surfaces and bases. Roads act like dams, concentrating flows that accelerate erosion of road materials and roadsides. Both unstable surfaces and accelerated erosion then lead to sediment and dust.”

There are several guidance documents, developed by the USEPA,⁸⁸ the US Forest Service,⁸⁹ the University of California,⁹⁰ and others, that include design and construction specifications and BMPs that are readily available for implementation by private and public entities. Implementing design and other source control BMPs for unpaved roads in the region is necessary to reduce and minimize the impacts of sediment discharged during storm events from unpaved roads to the MS4s and receiving waters.

Finding D.1.d. Updated individual Storm Water Management Plans (individual SWMPs or JRMPs) and Watershed Stormwater Management Plans (watershed SWMPs or Watershed Workplans), which, together with references in the DAMP, describe the Copermittees’ runoff management programs in their entirety, are needed to guide the Copermittees’ runoff management efforts and aid the Copermittees in tracking runoff management program implementation. Hereinafter, the individual SWMP is referred to as the JRMPs and the Watershed SWMP is referred to as the Watershed Workplan. It is practicable for the Copermittees to update the JRMPs and Watershed Workplans within the timeframe specified in this Order, since significant efforts to develop these programs have already occurred.

Discussion of Finding D.1.d. Development of runoff management plans is a crucial runoff management measure and should be considered a BMP. The plans help organize and focus the Copermittees’ programs and guide their implementation. In its statewide assessment report to USEPA Region IX and the State Water Board, Tetra

⁸⁷ USEPA 2006 “Environmentally Sensitive Maintenance for Dirt and Gravel Roads.” Gesford and Anderson, USEPA-PA-2005.

⁸⁸ Ibid.

⁸⁹ US Forest Service, 1996. Forest Service Specifications for Construction of Roads & Bridges. EM-7720-100. Revised August 1996.

⁹⁰ University of California Division of Agriculture and Natural Resources, 2007. Rural Roads: A Construction and Maintenance Guide of California Landowners. Publication 8262.

Tetra Tech, Inc. concluded that the lack of a master storm water planning document must be considered a serious program deficiency⁹¹. When submitted to the San Diego Water Board, the plans provide useful correspondence between the Copermittees and the San Diego Water Board. The Plans also become available for review by the public, and thus facilitate public participation in runoff management decisions. Finally, while development and submittal of runoff management plans are not necessary to ensure compliance of the Copermittees' runoff management programs with the Order, the San Diego Water Board is provided with a means to track Copermittee implementation.

The focus of the Order is on development and implementation of storm water programs which meet MEP, rather than creation of Copermittee plans which exhibit MEP. While the Order does not rely upon the plans to ensure MEP and other standards are achieved, the plans still serve a useful purpose. As stated above, the plans serve to organize the Copermittees' efforts to address runoff. As a practical matter, any program of the size required by the Order should be documented in writing. This serves to guide implementation of the program by the numerous individuals responsible for program implementation.

Runoff management plans are not necessary for ensuring compliance with the Order because the Order itself contains sufficient detailed requirements to ensure that compliance with discharge prohibitions, receiving water limitations, and the narrative standard of MEP for storm water are achieved. Implementation by the Copermittees of programs in compliance with the Order's requirements, prohibitions, and receiving water limitations is the pertinent compliance standard to be used under the Order, as opposed to assessing compliance by reviewing the Copermittees' implementation of their plans alone. The San Diego Water Board ensures compliance with the Order by reviewing annual reports, conducting inspections, performing audits, and through other general program oversight.

Runoff management plans are particularly important and useful for municipalities when program implementation is spread across several departments and/or when municipalities experience staff turnover.⁹² Each Copermittee relies on multiple employees or contractors for program implementation, but the spread of responsibility varies among Copermittees.⁹³ Written jurisdictional plans ensure appropriate coordination within each municipality.

Copermittees' runoff management plans are simply descriptions of their runoff management programs required under the Order. These plans serve as procedural correspondence which guides program implementation and aids the Copermittees and San Diego Water Board in tracking implementation of the programs. In this manner,

⁹¹ Tetra Tech, Inc. 2006. *Assessment Report on Tetra Tech's Support of California's MS4 Stormwater Program*. Produced for USEPA Region IX and the California State and Regional Water Quality Control Boards.

⁹² Tetra Tech, Inc. 2005. *Program Evaluation Report*. Orange County Storm Water Program: Cities of Laguna Beach, Laguna Hills, Lake Forest, and Rancho Santa Margarita.

⁹³ Responsible departments and employees are described in the 2005-06 Annual Reports for the MS4 programs.

the plans are not functional equivalents of the Order. For these reasons, the Copermittees' runoff management plans need not be an enforceable part of the Order.

The Copermittees' plans and programs can be updated on or before June 30, 2012 because much of their plans and programs are already in existence. In fact, many parts of their plans and programs have been in place for 15 years. Moreover, the adoption of Order No. R9-2004-001 required a larger scale reorganization of the Copermittees' programs than Order No. R9-2010-0016, but also only allowed one year for program updates. The Copermittees were generally able to meet the time schedule required under Order No. R9-2004-001. After discussions with the Copermittees, based on the timing of the adoption of the Order and the Copermittee's fiscal planning cycles, in conjunction with consideration for the current economic conditions, the San Diego Water Board agreed that additional time to update the Copermittees' plans and programs may be warranted. Thus, the Copermittees must update their plans and programs on or before June 30, 2012, which provides the Copermittees over 18 months, instead of 1 year, to update their plans and programs.

Finding D.1.e. Pollutants can be effectively reduced in storm water runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention is the reduction or elimination of pollutant generation at its source and is the best "first line of defense". Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control BMPs remove pollutants that have been mobilized by wet-weather or dry-weather flows.

Discussion of Finding D.1.e. The State Water Board finds in its Order WQ 98-01 that BMPs are effective in reducing pollutants in storm water runoff, stating that "implementation of BMPs [is] generally the most appropriate form of effluent limitations when designed to satisfy technology requirements, including reduction of pollutants to the maximum extent practicable." A State Water Board TAC further supports this finding by recommending "that nonpoint source pollution control can be accomplished most effectively by giving priority to [BMPs] in the following order:

1. Pollution Prevention – implementation of practices that use or promote pollution free alternatives;
2. Source Control – implementation of control measures that focus on preventing or minimizing urban runoff from contacting pollution sources;
3. Treatment Control – implementation of practices that require treatment of polluted runoff either onsite or offsite."⁹⁴

Pollution prevention, the reduction or elimination of pollutant generation at its source, is an essential aspect of BMP implementation. Fewer pollutants are available to be washed from developed areas when the generation of pollutants by activities is limited.

⁹⁴ State Water Board, 1994. Urban Runoff Technical Advisory Committee Report and Recommendations. Nonpoint Source Management Program.

Thus, pollutant loads in storm water discharges are reduced from these areas. In addition, there is no need to control or treat pollutants that are never generated. Furthermore, pollution prevention BMPs are generally more cost effective than removal of pollutants by treatment facilities or cleanup of contaminated media.^{95,96}

In the Pollution Prevention Act of 1990, Congress established a national policy that emphasizes pollution prevention over control and treatment. CWC section 13263.3(a) also supports pollution prevention, stating "The Legislature finds and declares that pollution prevention should be the first step in a hierarchy for reducing pollution and managing wastes, and to achieve environmental stewardship for society. The Legislature also finds and declares that pollution prevention is necessary to support the federal goal of zero discharge of pollutants into navigable waters." Finally, the Basin Plan also supports this finding by stating "To eliminate pollutants in storm water, one can either clean it up by removing pollutants or prevent it from becoming polluted in the first place. Because of the overwhelming volume of storm water and the enormous costs associated with pollutant removal, pollution prevention is the only approach that makes sense."⁹⁷

USEPA also supports the utilization of a combination of BMPs to address pollutants in runoff. For example, USEPA has found there has been success in addressing illicit discharge related problems through BMP initiatives like storm drain stenciling and recycling programs, including household hazardous waste special collection days.⁹⁸ Structural BMP performance data has also been compiled and summarized by USEPA.⁹⁹

The summary provides the performance ranges of various types of structural BMPs for removing suspended solids, nutrients, pathogens, and metals from storm water flows. These pollutants are generally a concern in storm water in the San Diego Region and Riverside County. For suspended solids, the least effective structural BMP type was found to remove 30-65 percent of the pollutant load, while the most effective was found to remove 65-100 percent of the pollutant load. For nutrients, the least effective structural BMP type was found to remove 15-45 percent of the pollutant load, while the most effective was found to remove 65-100 percent of the pollutant load. For pathogens, the least effective structural BMP type was found to remove <30 percent of the pollutant load, while the most effective was found to remove 65-100 percent of the pollutant load. For metals, the least effective structural BMP type was found to

⁹⁵ Devinny, J.S. et al. 2004. *Alternative Approaches to Stormwater Quality Control*. Prepared for the Los Angeles Regional Water Quality Control Board. Found as Appendix H to *NPDES Stormwater Cost Survey*. Prepared for the California State Water Resources Control Board by the Office of Water Programs California State University, Sacramento. Available on-line at: <http://www.owp.csus.edu/research/npdes/>

⁹⁶ Schueler, T.R., 2000. Center for Watershed Protection. *Assessing the Potential for Urban Watershed Restoration*, Article 142.

⁹⁷ San Diego Water Board, 1994. *Water Quality Control Plan, San Diego Basin, Region 9*.

⁹⁸ USEPA, 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges. 64 FR 68728.

⁹⁹ USEPA, 1999. Preliminary Data Summary of Urban Storm Water Best Management Practices. EPA 821-R-99-012.

remove 15-45 percent of the pollutant load, while the most effective was found to remove 65-100 percent of the pollutant load.

It is important to note that the CWA and NPDES federal regulations clearly require control of discharges into the MS4. CWA section 402(p)(3)(B)(ii) states that MS4 permits must "prohibit non-storm water discharges into the storm sewers." 40 CFR 122.26(d)(2)(iv)(B) requires Copermitees to "detect and remove [...] illicit discharges and improper disposal into the storm sewer." See Finding C.14 and Discussion.

The Order's approach to regulating discharges into and from the MS4 is in accordance with State Water Board Order WQ 2001-15. In that order, the State Water Board reviewed the San Diego County permit (Order No. 2001-01) requirements and made one change to one prohibition.¹⁰⁰ The Order upheld all other requirements of the current permit. Order No. R9-2010-0016 incorporates the one change made by the State Water Board, and continues the approach of Order No. 2001-01 (the basis for the current permit), as it was upheld by the State Water Board in Order WQ 2001-15. State Water Board Order WQ 2001-15 supports such requirements, stating: "It is important to emphasize that dischargers into MS4s continue to be required to implement a full range of BMPs, including source control."

The Court of Appeals, Fourth Appellate District, found that the current permit's approach to regulation of discharges into the MS4 was appropriate. Since the Order utilizes the same approach, the court decision supports the Order's requirements.

Finding D.1.f. Runoff needs to be addressed during the three major phases of urban development (planning, construction, and use) in order to reduce the discharge of storm water pollutants to the MEP, effectively prohibit non-storm water discharges and protect receiving waters. Development which is not guided by water quality planning policies and principles can unnecessarily result in increased pollutant load discharges, flow rates, and flow durations which can negatively impact receiving water beneficial uses. Construction sites without adequate BMP implementation result in sediment runoff rates which greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development generates substantial pollutant loads which are discharged in runoff to receiving waters.

Discussion of Finding D.1.f. MS4 permits are issued to municipalities because of their land use authority. The ultimate responsibility for the pollutant discharges, increased runoff, and inevitable long-term water quality degradation that results from development lies with local governments. This responsibility is based on the fact that it is the local governments that have authorized the development (i.e. conversion of natural pervious ground cover to impervious surfaces) and the land uses that generate the pollutants and runoff. Furthermore, the MS4 through which the pollutants and

¹⁰⁰ The State Water Board removed the prohibition of discharges *into* the MS4 that cause or contribute to exceedances of water quality objectives. The revision allows for treatment of storm water flows once the pollutants have entered the MS4. It does not affect the effective prohibition on certain dry-weather flows into the MS4 that is required by the Clean Water Act.

increased flows are conveyed, and ultimately discharged into natural receiving waters, are owned and operated by the same local governments. In summary, the Copermittees under the Order are responsible for discharges into and out of their MS4s because (1) they own and operate the MS4; and (2) they have the legal authority that authorizes the very development and land uses with generate the pollutants and increased flows in the first place.

For example, since grading cannot commence prior to the issuance of a local grading permit, the Copermittees have a built-in mechanism to ensure that all grading activities are protective of receiving water quality. The Copermittee has the authority to withhold issuance of the grading permit until the project proponent has demonstrated to the satisfaction of the Copermittee that the project will not violate their ordinances or cause the Copermittee to be in violation of its MS4 permit. Since the Copermittee will ultimately be held responsible for any discharges from the grading project by the San Diego Water Board, the Copermittee will want to use its own permitting authority to ensure that whatever measures the Copermittee deems necessary to protect discharges into its MS4 are in fact taken by the project proponent.

The Order holds the local government accountable for this direct link between its land use decisions and water quality degradation. The Order recognizes that each of the three major stages in the development process (development planning, construction, and the use or operational stage) are controlled by and must be authorized by the local government. Accordingly, this permit requires the local government to implement, or require others to implement, appropriate best management practices to reduce storm water pollutant discharges and increased flow during each of the three stages of development.

Including plans for BMP implementation during the design phase of new development and redevelopment offers the most cost effective strategy to reduce storm water runoff pollutant loads to surface waters.¹⁰¹ The Phase II regulations for small municipalities reflect the necessity of addressing runoff during the early planning phase. Due to the greater water quality concerns generally experienced by larger municipalities, Phase II requirements for small municipalities are also applicable to larger municipalities such as the Copermittees. The Phase II regulations direct municipalities to develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale. The program must ensure that controls are in place that would prevent or minimize water quality impacts. This includes developing and implementing strategies which include a combination of structural and/or non-structural BMPs appropriate to the locality. The program must also ensure the adequate long-term operation and maintenance of BMPs.¹⁰² USEPA expands on the Phase II regulations for urban development when it recommends that Copermittees:

¹⁰¹ USEPA, 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

¹⁰² USEPA, 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System-Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. 64 FR 68845.

“Adopt a planning process that identifies the municipality’s program goals (e.g., minimize water quality impacts resulting from post-construction runoff from new development and redevelopment), implementation strategies (e.g., adopt a combination of structural and/or non-structural BMPs), operation and maintenance policies and procedures, and enforcement procedures. In developing your program, you should consider assessing existing ordinances, policies, programs and studies that address storm water runoff quality.”

Management of storm water runoff during the construction phase is also essential. USEPA explains in the preamble to the Phase II regulations that storm water discharges generated during construction activities can cause an array of physical, chemical, and biological water quality impacts. Specifically, the biological, chemical and physical integrity of the waters may become severely compromised due to runoff from construction sites. Fine sediment from construction sites can adversely affect aquatic ecosystems by reducing light penetration, impeding sight-feeding, smothering benthic organisms, abrading gills and other sensitive structures, reducing habitat by clogging interstitial spaces within the streambed, and reducing intergravel dissolved oxygen by reducing the permeability of the bed material. Water quality impairment also results, in part, because a number of pollutants are preferentially absorbed onto mineral or organic particles found in fine sediment. The interconnected process of erosion (detachment of the soil particles), sediment transport, and delivery is the primary pathway for introducing key pollutants, such as nutrients, metals, and organic compounds into aquatic systems.¹⁰³

Finally, storm water and non-storm water runoff from existing development must be addressed. The Copermitees’ monitoring data exhibits that significant water quality problems exist in receiving waters which receive runoff from areas with extensive existing development, such as Aliso Creek. Source identification, BMP requirements, inspections, and enforcement are all important measures which can be implemented to address runoff from existing development. USEPA supports inspections and enforcement by municipalities when it states “Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described.”¹⁰⁴

Finding D.1.g. Annual reporting requirements included in this Order are necessary to meet federal requirements and to evaluate the effectiveness and compliance of the Copermitees’ programs.

¹⁰³ Ibid., 64 FR 68728.

¹⁰⁴ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

Discussion of Finding D.1.g. The annual reporting requirements are consistent with federal NPDES regulation 40 CFR 122.41, which states:

“The operator of a large or medium municipal separate storm sewer system of a municipal separate storm sewer system that has been designated by the Director under section 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such a system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition, Such proposed changes shall be consistent with § 122.26(d)(2)iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and (7) Identification of water quality improvements or degradation.”

CWC section 13267 provides that “the regional board may require that any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

The San Diego Water Board must assess the reports to ensure that the Copermittees' programs are adequate to assess and address water quality. The reporting requirements can also be useful tools for the Copermittees to review, update, or revise their programs. Areas or issues which have received insufficient efforts can also be identified and improved.

Finding D.1.h. This Order establishes Storm Water Action Levels (SALs) for selected pollutants based on USEPA Rain Zone 6 (arid southwest) Phase I MS4 monitoring data for pollutants in storm water. The SALs were computed as the 90th percentile of the data set, utilizing the statistical based population approach, one of three approaches recommended by the State Water Board's Storm Water Panel in its report, 'The Feasibility of Numerical Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities (June 2006). SALs are identified in section D of this Order. Copermittees must implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water from the permitted areas so as not to exceed the SALs. Exceedance of SALs may indicate inadequacy of programmatic measures and BMPs required in this Order.

Discussion of Finding D.1.h. Section 402(p) of the CWA states MS4 permits for storm water shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. This includes requiring numeric effluent limitations for storm water.

SALs are not numeric effluent limitations, which is reflected in language which clarifies an excursion above a SAL does not create a presumption that MEP is not being met. Instead, a SAL exceedance is to be used by the Copermittee as an indication that the MS4 storm water discharge point is a definitive "bad actor," and the result from the monitoring needs to be considered as part of the iterative process for reducing pollutants in storm water to the MEP.

The CWA defines effluent limitations as:

"Any restriction imposed by the Director on quantities, discharge rates, and concentrations of pollutants which are "discharged" from "point sources" into "waters of the United States"..." A SAL is not a restriction on a quantity, rate or concentration, but is a level at which actions that further reduce pollutants from that discharge point need to be evaluated in order to reduce storm water pollutants to the MEP. Thus, SALs are not effluent limitations as defined by the CWC or CWA.

The approach of using "action levels" is consistent with recommendations made by USEPA in their Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, dated August 26, 1996:

"Under the Clean Water Act (CWA) and NPDES regulations, permitting authorities may employ a variety of conditions and limitations in storm water permits, including best management practices, performance objectives, narrative conditions, monitoring triggers, action levels (e.g., monitoring benchmarks, toxicity reduction evaluation action levels), etc., as the necessary water-quality based limitations, where numeric water quality based effluent limitations are determined to be unnecessary or infeasible". As such, these action levels are not considered numeric water quality-based effluent limitations.

It should be noted that a purpose of monitoring, required under this and previous Orders, is to aid in the evaluation of implemented programs and BMPs in reducing pollutants in storm water discharges to the MEP. The Monitoring and Reporting Program states:

This Receiving Waters Monitoring and Reporting Program is intended to meet the following goals:

2. Measure and improve the effectiveness of the Copermittees' runoff management programs;
3. Assess the chemical, physical, and biological impacts to receiving waters resulting from MS4 discharges;
4. Characterize storm water discharges;
5. Identify sources of specific pollutants;
6. Prioritize drainage and sub-drainage areas that need management actions; and
9. Provide information to implement required BMP improvements.

Since the first permit (adopted 20 years ago), Copermittees have utilized non-numerical limitations (BMPs) to control and abate the discharge of any pollutants in storm water discharges to the MEP. Copermittees have been accorded 20 years to research, develop, and deploy BMPs that are capable of reducing storm water discharges from the MS4 to levels represented in SALs. Storm Water Action Levels are set at such a level that any exceedance of a SAL will clearly indicate BMPs being implemented are insufficient to protect the Beneficial Uses of waters of the State. Copermittee shall utilize the exceedance information as a high priority consideration when adjusting and executing annual work plans, as required by this Permit. Failure to appropriately consider and react to SAL exceedances in an iterative manner creates a presumption that the Copermittee(s) have not complied to the MEP.

SALs have been developed utilizing Phase I storm water effluent data (updated February 2008, <http://rpitt.eng.ua.edu/Research/ms4/mainms4.shtml>) from the arid west region (USEPA Rain Zone 6). USEPA Rainfall Zone 6, which includes MS4 effluent data from Orange, San Diego, Los Angeles, Ventura and San Bernadino County. The approach taken to derive SALs is a straightforward percentile approach, with the SAL being set as the 90th percentile of the dataset for each constituent. This approach is consistent with the 2006 State Water Board Panel Report:

"The statistically based population approach would once again rely on the average distribution of measured water quality values developed from many water quality samples taken for many events at many locations. In this case, however, the Action Level would be defined by the central tendency and variance estimates from the population data. For example, the Action Level could be set as two standard deviations above the mean, i.e. if measured concentrations are consistently higher than two standard deviations above the mean, an Action Level would be triggered. Other population based measures of central tendency could be used (i.e. geometric mean, median, etc.) or estimates of variance (i.e. prediction intervals, etc.). Regardless of which population based estimators are used (or percentile from above), the idea would be to identify the [statistically derived] point at which managers feel concentrations are significantly beyond the norm."

SALs are measurable criteria which quantify the performance of BMPs for a particular watershed or subwatershed that discharges storm water MS4 effluent from that particular discharge point. Thus, Copermitees can utilize SAL results to determine the effectiveness BMPs on the effluent from a particular area of the MS4.

SALs represent the lowest 10 percent of pollutant reduction for USEPA Rain Zone 6 MS4 Phase I programs discharging to waters of the United States. For the past 20 years, Copermitees have utilized non-numerical limitations (BMPs) to control and abate the discharge of any pollutants in storm water discharges to the MEP. Copermitees have been accorded 20 years to research, develop, and deploy BMPs that are capable of reducing storm water discharges from the MS4 to levels represented in SALs. Storm Water Action Levels are set at such a level that any exceedance of a SAL will indicate to the Copermitee(s) that the discharge is within the lowest 10% of monitored outfalls. Therefore, an exceedance of a SAL warrants priority consideration within the Copermitee iterative process.

Finding D.2.a. The Standard Storm Water Mitigation Plan (SSMP) requirements contained in this Order are consistent with Order WQ 2000-11 adopted by the State Water Board on October 5, 2000. In the precedential order, the State Water Board found that the design standards, which essentially require that runoff generated by 85 percent of storm events from specific development categories be infiltrated or treated, reflect the MEP standard. The order also found that the SSMP requirements are appropriately applied to the majority of the Priority Development Project categories that are also contained in section F.1 of this Order. The State Water Board also gave California Regional Water Quality Control Boards (Regional Water Boards) the needed discretion to include additional categories and locations, such as retail gasoline outlets (RGOs), in SSMPs.

Discussion of Finding D.2.a. The post-construction requirements and design standards contained in the SSMP section of Order No. R9-2010-0016 constitute MEP consistent with State Water Board guidance, court decisions, and San Diego Water Board requirements. The State Water Board and San Diego Water Board have made several recent decisions in regards to inclusion of SSMP requirements in MS4 permits. In a precedential decision, State Water Board Order WQ 2000-11, the State Water Board found that the SSMP provisions constitute MEP for addressing storm water pollutant discharges resulting from Priority Development Projects. The provisions of the SSMP section of the Order are also consistent with those previously issued by the San Diego Water Board for Riverside County (Order No. R9-2004-001), Southern Orange County (Order Nos. R9-2002-0001 and R9-2009-0002) and San Diego County (Order Nos. R9-2001-01 and R9-2007-0001), as well as requirements in the Los Angeles County MS4 permit (Order No. R4-2001-182). In State Water Board Order WQ 2001-15, the State Water Board reaffirmed that SSMP requirements constitute MEP. Moreover, the SSMP requirements of the San Diego County MS4 permit (Order No. R9-2001-01) were upheld when the California State Supreme Court declined to hear the matter on appeal.

Finding D.2.b. Controlling runoff pollution by using a combination of onsite source control and site design BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: (1) Many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events; (2) Whereas, onsite source control BMPs can be applied during all runoff conditions end-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; (3) End-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; (4) End-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the pollutant source and the BMP; and (5) Offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.

Discussion of Finding D.2.b. Many end-of-pipe BMPs are designed for low flow conditions because their end-of-pipe location prevents them from being designed for large storm events. This results in the end-of-pipe BMPs being overwhelmed, bypassed, or ineffective during larger storm events more frequently than onsite BMPs designed for larger storms. BMPs are also frequently most effective for a particular type of pollutant (such as sediment). Such BMPs may be appropriate for small sites with a limited suite of pollutants generated; however, end-of-pipe BMPs must typically be able to address a wide range of pollutants generated by a sub-watershed, limiting their effectiveness and/or increasing costs. Moreover, the location of some end-of-pipe BMPs allow for untreated pollutants to be discharged to and degrade receiving waters prior to their reaching the BMPs. This fails to protect receiving waters, which is the purpose of BMP implementation. In addition, opportunities to educate the public regarding runoff pollution can be lost when end-of-pipe BMPs are located away from pollutant sources and out of sight. Onsite BMPs can lead to a better public understanding of runoff issues since their presence can provide a visible and/or tangible lesson in pollution prevention.

Finding D.2.c. Use of Low-Impact Development (LID) site design BMPs at new development, redevelopment and retrofit projects can be an effective means for minimizing the impact of storm water runoff discharges from the development projects on receiving waters. LID is a site design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques. LID site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of storm water runoff. Current runoff management, knowledge, practices and technology have resulted in the use of LID BMPs as an acceptable means of meeting the storm water MEP standard.

Discussion of Finding D.2.c. The CWA is the cornerstone of surface water quality protection in the United States. (The Act does not deal directly with ground water or with water quantity issues.) The statute employs a variety of regulatory and nonregulatory tools to sharply reduce direct pollutant discharges into waterways, and manage polluted runoff. These tools are employed to achieve the broader goal of

restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support the protection and propagation of fish, shellfish, wildlife and recreation in and on the water.

Increasing the volume, velocity, frequency and discharge duration of storm water runoff from developed areas will eventually greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads and volume while simultaneously increasing impervious area. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by naturally vegetated soil. Furthermore, impervious surfaces tend to concentrate pollutants on the top of the surface that are then washed off into the MS4 and waters of the State in a concentrated manner. The use of LID site design BMPs can be an effective means of minimizing the impact of runoff discharges on receiving waters. By reducing water pollution, reducing runoff and increasing groundwater recharge, LID helps to improve the quality of receiving surface waters, stabilize the flow rates of receiving waters (preventing downstream hydromodification), reduce downstream flooding and protect and enhance water supply sources. Current runoff management, knowledge, practice and technology has resulted in the use of LID BMPs as an acceptable means of meeting the MEP standard for storm water treatment.

Current municipal codes may oppose or hinder the design, use and implementation of specific elements of LID. These codes include, but are not limited to, emergency services access requirements, building landscape ordinances, building height limits and parking space requirements. It is essential for Copermittees to work with other responsible agencies and/or update codes that have the potential to impact the use of LID.

The Local Government Commission, a non-profit organization working to build livable communities, developed a set of principles known as the *Ahwahnee Water Principles for Resource-Efficient Land Use*¹⁰⁵ that provide the opportunity to reduce costs and improve the reliability and quality of our water resources. Implementation of LID incorporates several of the Ahwahnee principles such as:

1. "Community Design should be compact, mixed use, walkable and transit-oriented so that urban runoff pollutants are minimized and the open lands that absorb water are preserved to the maximum extent possible."
3. "Water holding areas such as creek beds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality and decrease flooding should be incorporated into the urban landscape."
4. "All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater."

¹⁰⁵ Local Government Commission, "The Ahwahnee Water Principles – A Blueprint for Regional Sustainability", http://water.lgc.org/Members/tony/docs/lgc_water_guide.pdf

5. "Permeable surfaces should be used for hardscape. Impervious surfaces such as driveways, streets, and parking lots should be minimized so that land is available to absorb storm water, reduce polluted urban runoff, recharge groundwater and reduce flooding."

The use of LID site design BMPs helps reduce the amount of impervious area associated with development and allows storm water to infiltrate into the soil. Natural vegetation and soil filters storm water runoff and reduces the volume and pollutant loads of storm water. Studies have revealed that the level of imperviousness resulting from development and urbanization is strongly correlated with the water quality impairment of nearby receiving waters.¹⁰⁶ In many cases, the impacts on receiving waters due to changes in hydrology can be more significant than those attributable to the contaminants found in storm water discharges.¹⁰⁷ These impacts include stream bank erosion (increased sediment load and subsequent deposition), benthic habitat degradation, and decreased diversity of macroinvertebrates. Although conventional BMPs do reduce storm water pollutant loads, they may not effectively control adverse effects from changes in the discharge hydrologic conditions.¹⁰⁸

The Order includes requirements for developments to include site design BMPs that mimic or replicate the natural hydrologic cycle. Open space designs which maximize pervious surfaces and retention of "natural" drainages have been found to reduce both the costs of development and pollutant export.¹⁰⁹ Moreover, USEPA finds including plans for a "natural" site design and BMP implementation during the design phase of new development and redevelopment offers the most cost effective strategy to reduce storm water pollutant loads to surface waters.¹¹⁰ In addition, a recent U.S. Department of Housing and Urban Development guidance document on low-impact development notes that the use of LID-based storm water management design allows land to be developed, but in a cost-effective manner that helps mitigate potential environmental impacts.¹¹¹

Finding D.2.d. RGOs are significant sources of pollutants in storm water runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other developed areas.

¹⁰⁶ USEPA, 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule.

¹⁰⁷ Ibid.

¹⁰⁸ USEPA, 2000. Low-Impact Development: A literature review. EPA-841-B-00-005. 35p.

¹⁰⁹ Center for Watershed Protection, 2000. "The Benefits of Better Site Design in Residential Subdivisions." Watershed Protection Techniques. Vol. 3. No. 2.

¹¹⁰ USEPA, 1999. 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule.

¹¹¹ U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2003. "The Practice of Low Impact Development." Prepared by: NAHB Research Center, Inc. Upper Marlboro, Maryland. Contract No. H-21314CA. 131p.

Discussion of Finding D.2.d. RGOs are included in the Order as a Priority Development Project category because RGOs produce significantly greater loadings of hydrocarbons and trace metals (including copper and zinc) than other developed areas. To meet the storm water MEP standard, source control and structural treatment BMPs are needed at RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) an average daily traffic (ADT) of 100 or more vehicles per day. These are appropriate thresholds since vehicular development size and volume of traffic are good indicators of potential impacts of storm water runoff from RGOs on receiving waters.

This finding has been added to satisfy State Water Board Order WQ 2000-11's requirements for including RGOs as a Priority Development Category. State Water Board Order WQ 2000-11 acknowledged that a threshold (size, average daily traffic, etc.) appropriate to trigger SSMP requirements should be developed for RGOs and that specific findings regarding RGOs should be included in MS4 permits to justify the requirement.¹¹²

Finding D.2.e. Industrial sites are significant sources of pollutants in runoff. Pollutant concentrations and loads in runoff from industrial sites are similar or exceed pollutant concentrations and loads in runoff from other land uses, such as commercial or residential land uses. As with other land uses, LID site design, source control, and treatment control BMPs are needed at industrial sites in order to meet the MEP standard. These BMPs are necessary where the industrial site is larger than 10,000 square feet. The 10,000 square feet threshold is appropriate, since it is consistent with requirements in other Phase I NPDES storm water regulations throughout California.

Discussion of Finding D.2.e. Industrial sites can be a significant source of pollutants in storm water runoff. In an extensive review of storm water literature, the Los Angeles Water Board found widespread support for the finding that "industrial and commercial activities can also be considered hot spots as sources of pollutants." It also found that "industrial and commercial areas were likely to be the most significant pollutant source areas" of heavy metals.¹¹³ Likewise, storm water runoff from heavy industry in the Santa Clara Valley has been found to be extremely toxic.¹¹⁴ These findings are corroborated by USEPA, which states in the preamble to the 1990 Phase I NPDES storm water regulations that "Because storm water from industrial facilities may be a major contributor of pollutants to municipal separate storm sewer systems, municipalities are obligated to develop controls for storm water discharges associated

¹¹² State Water Board, 2000. Order WQ 2000-11. In the Matter of the Petitions of The Cities Of Bellflower, Et Al., The City Of Arcadia, And Western States Petroleum Association Review of January 26, 2000 Action of the Regional Board And Actions and Failures to Act by both the California Regional Water Quality Control Board, Los Angeles Region and Its Executive Officer Pursuant to Order No. 96-054, Permit for Municipal Storm Water and Urban Run-Off Discharges Within Los Angeles County [NPDES NO. CAS614001] SWRCB/OCC FILES A-1280, A-1280(a) and A-1280(b)

¹¹³ Los Angeles Water Board. 2001.

¹¹⁴ Schueler and Holland, 2000. Storm Water Strategies for Arid and Semi-Arid Watersheds (Article 66). The Practice of Watershed Protection.

with industrial activity through their system in their storm water management program." Since heavy industrial sites can be a significant source of pollutants in runoff in a manner similar to other SSMP project categories such as commercial development or automotive repair shops, it is appropriate to include heavy industrial sites as a SSMP category in the Order.

The Phase I NPDES storm water regulations require the Copermittees to "control through ordinance, permit, contract, order, or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity" (40 CFR 122.26(d)(2)(i)). In addition, it has been established that the MEP standard for the control of storm water runoff from new development projects includes incorporation of the SSMP requirements. Since the Copermittees must both control storm water pollutants from industrial sites and meet the storm water MEP standard for new development, it is appropriate to apply the SSMP requirements to heavy industrial sites.

The State Water Board's Order WQ 2000-11 indicates that it is appropriate to apply SSMP requirements to categories of development where evidence shows the category of development can be a significant source of pollutants. As evidenced above, heavy industrial sites can be a significant source of pollutants. Therefore, the Order includes heavy industrial sites as a SSMP Priority Development Project category.

Finding D.2.f. If not properly designed or maintained, certain BMPs implemented or required by municipalities for runoff management may create a habitat for vectors (e.g. mosquitoes and rodents). Proper BMP design and maintenance to avoid standing water, however, can prevent the creation of vector habitat. Nuisances and public health impacts resulting from vector breeding can be prevented with close collaboration and cooperative effort between municipalities, local vector control agencies, and the California Department of Public Health during the development and implementation of runoff management programs.

Discussion of Finding D.2.f. The implementation of certain structural BMPs or other runoff treatment systems can result in significant vector problems in the form of increased breeding or harborage habitat for mosquitoes, rodents or other potentially disease transmitting organisms. The implementation of BMPs that retain water may provide breeding habitat for a variety of mosquito species, some of which have the potential to transmit diseases such as Western Equine Encephalitis, St. Louis Encephalomyelitis, and malaria. Recent BMP implementation studies by Caltrans¹¹⁵ in District 7 and District 11 have demonstrated mosquito breeding associated with some types of BMPs. The Caltrans BMP Retrofit Pilot study cited lack of maintenance and improper design as factors contributing to mosquito production. However, a Watershed Protection Techniques article describes management techniques for selecting, designing, and maintaining structural treatment BMPs to minimize mosquito

¹¹⁵ Caltrans, 2000. BMP Retrofit Pilot Studies: A Preliminary Assessment of Vector Production.

production.¹¹⁶ State and local runoff management programs that include structural BMPs with the potential to retain water have been implemented in Florida and the Chesapeake Bay region without resulting in significant public health threats from mosquitoes or other vectors.¹¹⁷

Finding D.2.g. The increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads in storm water runoff and the volume of storm water runoff. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by natural vegetated soil. Hydromodification measures for discharges to hardened channels allow for the future restoration of the hardened channels to their natural state, thereby restoring the chemical, physical, and biological integrity and beneficial uses of local receiving waters.

Discussion of Finding D.2.g. Increasing the volume, velocity, frequency and discharge duration of storm water runoff from developed areas will eventually greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses. Development and urbanization increase pollutant loads and volume while simultaneously increasing impervious area. Impervious surfaces can neither absorb water nor remove pollutants and thus lose the purification and infiltration provided by naturally vegetated soil.

Historic hydromodification impacts, such as concrete lining and channelization, have impacted the natural physical habitat of urban streams resulting in low IBI scores. The Copermittee's monitoring to date indicates decreased IBI scores in the developed watersheds when compared to reference sites, with developed sites consistently having poor or very poor IBI scores. While habitat scores remained stable over the last reporting period, with scores of marginal to sub-optimal, the Copermittees have consistently monitored high levels of fine sediment in habitat assessments and often changing vegetative cover. However, the impact of persistent toxicity at the bioassessment stations in conjunction with physical habitat scores is unknown.¹¹⁸

Hydromodification impacts result in poor physical habitat conditions through streambed scour, erosion, vegetation displacement, sediment deposition, channelization, and channel modifications. Increased sediment loads from hydromodification causes other impacts to physical habitats including increased turbidity which then may cause increased temperatures. In addition, an increased sediment load may have an increased biological content thereby increasing the

¹¹⁶ Watershed Protection Techniques, 1995. Mosquitoes in Constructed Wetlands: A Management Bugaboo? 1(4):203-207.

¹¹⁷ Shaver, E. and R. Baldwin, 1995. Sand Filter Design for Water Quality Treatment in Herricks, E., Ed. Stormwater Runoff and Receiving Systems: Impact, Monitoring, and Assessment, CRC Lewis Publishers, New York, NY.

¹¹⁸ Riverside County Copermittees, 2008-2009 Santa Margarita Watershed Annual Report.

sediment oxygen demand and lowering the dissolved oxygen available for aquatic life.¹¹⁹

The objective of the CWA is “to restore and maintain the chemical, *physical*, and biological integrity of the Nation’s waters (emphasis added).” Stream restoration by removing concrete and other unnatural materials is a major step toward achieving that objective. The success of future stream restoration and stabilization is, however, dependent on preventing and reducing physical impacts from activities upstream. Therefore, hydromodification management measures are necessary upstream of modified (e.g. concrete, rip rap, etc.) channels in addition to non-modified channels.

Please see discussion of Findings C.10 and C.11 for additional information about impacts due to increasing volume, velocity, frequency and discharge duration of storm water runoff from developed areas.

Finding D.3.a. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (State and local) storm water regulation. Under this dual system, each Copermittee is responsible for enforcing its local permits, plans, and ordinances, and the San Diego Water Board is responsible for enforcing the General Construction Activities Storm Water Permit, State Water Board Order 2009-0009-DWQ, NPDES No. CAS000002 (General Construction Permit) and the General Industrial Activities Storm Water Permit, State Water Board Order 97-03-DWQ, NPDES No. CAS000001 (General Industrial Permit). NPDES municipal regulations require that municipalities develop and implement measures to address runoff from industrial and construction activities. Those measures may include the implementation of other BMPs in addition to those BMPs that are required under the statewide general permits for activities subject to both State and local regulation.

Discussion of Finding D.3.a. USEPA finds the control of pollutant discharges from industry and construction so important to receiving water quality that it has established a double system of regulation over industrial and construction sites. This double system of regulation consists of two parallel regulatory systems with the same common objective: to keep pollutants from industrial and construction sites out of the MS4. In this double system of regulation for runoff from industrial and construction sites, local governments must enforce their legal authorities (i.e. local ordinances and permits) while the San Diego Water Board must enforce its legal authority (i.e. statewide general industrial and construction storm water permits). These two regulatory systems are designed to complement and support each other. Municipalities are not required to enforce San Diego Water Board and State Water Board permits. They are required, however, to enforce their ordinances and permits. The Federal regulations are clear that municipalities have responsibility to prevent

¹¹⁹ USEPA, National Management Measures to Control Nonpoint Source Pollution from Hydromodification, EPA 841-B-07-002, July 2007.

non-storm water and address storm water runoff from industrial and construction sites which enters their MS4s.

Municipalities have this responsibility because they have the authority to issue land use and development permits. Since municipalities are the lead permitting authority for industrial land use and construction activities, they are also the lead for enforcement regarding runoff discharges from these sites. For sites where the municipality is the lead permitting authority, the San Diego Water Board will work with the municipality and provide support where needed. The San Diego Water Board will assist municipalities in enforcement against non-compliant sites after the municipality has exhibited a good faith effort to bring the site into compliance.

According to USEPA, the storm water regulations envision that NPDES permitting authorities and municipal operators will cooperate to develop programs to monitor and control pollutants in storm water discharges from industrial facilities.¹²⁰ USEPA discusses the “dual regulation” of construction sites in its Storm Water Phase II Compliance Assistance Guide, which states “Even though all construction sites that disturb more than one acre are covered nationally by an NPDES storm water permit, the construction site runoff control minimum measure [...] is needed to induce more localized site regulation and enforcement efforts, and to enable operators [...] to more effectively control construction site discharges into their MS4s.”¹²¹ While the Storm Water Phase II Compliance Assistance Guide applies to small municipalities, it is applicable to the Copermittees, because they are similar in size and have the potential to discharge similar pollutant types as Phase II municipalities.

Finding D.3.b. Identification of sources of pollutants in runoff (such as municipal areas and activities, industrial and commercial sites/sources, construction sites, and residential areas), development and implementation of BMPs to address those sources, and updating ordinances and approval processes are necessary for the Copermittees to ensure that discharges of pollutants from its MS4 in storm water are reduced to the MEP and that non-storm water discharges are not occurring. Inspections and other compliance verification methods are needed to ensure minimum BMPs are implemented. Inspections are especially important at areas that are at high risk for pollutant discharges.

Discussion of Finding D.3.b. Source identification is necessary to characterize the nature and extent of pollutants in discharges and to develop appropriate BMPs. It is the first step in a targeted approach to runoff management. Source identification helps identify the location of potential sources of pollutants in runoff. Pollutants found to be present in receiving waters can then be traced to the sites which frequently generate such pollutants. In this manner source inventories can help to target inspections, monitoring, and potential enforcement. This allows for limited inspection, monitoring, and enforcement time to be most effective. USEPA supports source identification as a

¹²⁰ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

¹²¹ USEPA, 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

concept when it recommends construction, municipal, and industrial source identification in guidance and the federal regulations.^{122,123}

The development of BMPs for identified sources will help ensure that appropriate, consistent controls are implemented at all types of development and areas. Copermittees must reduce the discharge of pollutants in storm water runoff to the maximum extent practicable. To achieve this level of pollutant reduction, BMPs must be implemented. Designation of minimum BMPs helps ensure that appropriate BMPs are implemented for various sources. These minimum BMPs also serve as guidance as to the level of water quality protection required. USEPA requires development and implementation of BMPs for construction, municipal, commercial, industrial, and residential sources at 40 CFR 122.26(d)(2)(iv)(A-D).

Updating ordinances and approval processes is necessary in order for the Copermittees to control discharges to their MS4s. USEPA supports updating ordinances and approval processes when it states "A crucial requirement of the NPDES storm water regulation is that a municipality must demonstrate that it has adequate legal authority to control the contribution of pollutants in storm water discharged to its MS4. [...] In order to have an effective municipal storm water management program, a municipality must have adequate legal authority to control the contribution of pollutants to the MS4. [...] 'Control,' in this context, means not only to require disclosure of information, but also to limit, discourage, or terminate a storm water discharge to the MS4."¹²⁴

Inspections provide a necessary means for the Copermittees to evaluate compliance of pollutant sources with their municipal ordinances and minimum BMP requirements. USEPA supports inspections when it recommends inspections of construction, municipal, and industrial sources.¹²⁵ Inspection of high risk sources are especially important because of the ability of frequent inspections to help ensure compliance, thereby reducing the risk associated with such sources. USEPA suggests that inspections can improve compliance when it states "Effective inspection and enforcement requires [...] penalties to deter infractions and intervention by the municipal authority to correct violations."¹²⁶

Finding D.3.c. Historic and current development makes use of natural drainage patterns and features as conveyances for runoff. Urban streams used in this manner are part of the municipalities MS4s regardless of whether they are natural, anthropogenic, or partially modified features. In these cases, the urban stream is both an MS4 and receiving water.

¹²² USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

¹²³ 40 CFR 122.26(d)(2)(ii)

¹²⁴ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

¹²⁵ Ibid.

¹²⁶ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

Discussion of Finding D.3.c. An MS4 is defined in the federal regulations as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), owned or operated by a Copermittee, and designed or used for collecting or conveying runoff.¹²⁷ Natural drainage patterns and urban streams are frequently used by municipalities to collect and convey runoff away from development within their jurisdiction. Therefore, the San Diego Water Board considers natural drainages that are used for conveyances of runoff, regardless of whether or not they've been altered by the municipality, as both part of the MS4s and as receiving waters. To clarify, an unaltered natural drainage, which receives runoff from a point source (channeled by a Copermittee to drain an area within their jurisdiction), which then conveys the runoff to an altered natural drainage or a man-made MS4, is both an MS4 and a receiving water.¹²⁸

Finding D.3.d. As operators of the MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or otherwise control. These discharges may cause or contribute to a condition of contamination or a violation of water quality standards.

Discussion of Finding D.3.d. CWA section 402(p) requires operators of MS4s to prohibit non-storm water discharges into their MS4s. This is necessary because pollutants which enter the MS4 generally are conveyed through the MS4 to be eventually discharged into receiving waters. If a municipality does not prohibit non-storm water discharges, it is providing the pathway (its MS4) which enables pollutants to reach receiving waters. Since the municipality's storm water management service can result in pollutant discharges to receiving waters, the municipality must accept responsibility for the water quality consequences resulting from this service. Furthermore, third party discharges can cause a municipality to be out of compliance with its permit. Since pollutants from third parties which enter the MS4 will eventually be discharged from the MS4 to receiving waters, the third party discharges can result in a situation of municipality non-compliance if the discharges lead to an exceedance of water quality standards. For these reasons, each Copermittee must prohibit and/or control discharges from third parties to its MS4. USEPA supports this concept when it states "the operators of regulated small MS4s cannot passively receive and discharge pollutants from third parties" and "the operator of a small MS4 that does not prohibit and/or control discharges into its system essentially accepts 'title' for those discharges. At a minimum, by providing free and open access to the MS4s that convey discharges

¹²⁷ USEPA, 2000. EPA Administered Permit Programs: The National Pollutant Discharge Elimination System. Code of Federal Regulations, Vol. 40, Part 122.

¹²⁸ San Diego Water Board, 2001. Response in Opposition to Petitions for Review of California Regional Water Quality Control Board San Diego Region Order No. 2001-01 – NPDES Permit No. CAS0108758 (San Diego Municipal Storm Water Permit).

to the waters of the United States, the municipal storm sewer system enables water quality impairment by third parties.”¹²⁹

In a recent decision issued for *United States v. Washington State Department of Transportation (WSDOT)*,¹³⁰ the court found that WSDOT, by allowing runoff from its MS4 to a receiving water that is part of a Superfund site, is an “arranger” of “disposal or treatment of hazardous substances” as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) by “designing, constructing, and operating drainage systems whose sole function was to collect highway runoff and dispose of it into nearby water-bodies.” The court went on to state that “WSDOT did design the drainage system and... has the ability to redirect, contain or treat its contaminated runoff.”

Finding D.3.e. Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the U.S. unless they are removed. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. For this reason, pollutant discharges from storm water into MS4s must be reduced using a combination of management measures, including source control and an effective MS4 maintenance program implemented by each Copermittee.

Discussion of Finding D.3.e. When rain falls and drains freeways, industries, construction sites, and neighborhoods, it picks up a multitude of pollutants. Gravity flow transports the pollutants to the MS4. Illicit discharges and connections also can contribute a significant amount of pollutants to MS4s. MS4s are commonly designed to convey their contents as quickly as possible. Due to the resulting typically high flow rates within the concrete conveyance systems of MS4s, pollutants which enter or are deposited in the MS4 and not removed are generally flushed unimpeded through the MS4 to waters of the United States. Since treatment generally does not occur within the MS4, in such cases reduction of storm water pollutants to the MEP must occur prior to discharges entering the MS4.

The importance of this concept is supported by the tons of wastes/pollutants that have been removed from the Copermittees’ MS4s as reported in their ROWD.¹³¹ Moreover, these pollutants will be discharged into receiving waters unless an effective MS4 and structural treatment BMP maintenance program is implemented by the Copermittees. The requirement for Copermittees to conduct a MS4 maintenance program is specifically directed in both the Phase I and Phase II storm water regulations. Regarding MS4 cleaning, USEPA states “The removal of sediment, decaying debris, and highly polluted water from catch basins has aesthetic and water quality benefits, including reducing foul odors, reducing suspended solids, and reducing the load of

¹²⁹ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68765-68766.

¹³⁰ United State District Court, Western District of Washington at Tacoma, Case No. C08-5722RJB, Order on Motions for Partial Summary Judgment, dated June 7, 2010.

¹³¹ Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

oxygen-demanding substances that reach receiving waters.”¹³² It goes on to say, “Catch basin cleaning is an efficient and cost-effective method for preventing the transport of sediment and pollutants to receiving water bodies.” USEPA also finds that “Lack of maintenance often limits the effectiveness of storm water structural controls such as detention/retention basins and infiltration devices. [...] The proposed program should provide for maintenance logs and identify specific maintenance activities for each class of control, such as removing sediment from retention ponds every five years, cleaning catch basins annually, and removing litter from channels twice a year.”¹³³

Finding D.3.f. Enforcement of local runoff related ordinances, permits, and plans is an essential component of every runoff management program and is specifically required in the federal storm water regulations and this Order. Each Copermittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, administrative, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction. Education is an important aspect of every effective runoff management program and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and understand their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions affect receiving water quality and how adverse effects can be minimized.

Discussion of Finding D.3.f. The Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A – D) are clear in placing responsibility on municipalities for control of runoff from third party activities and land uses to their MS4.¹³⁴ In order for municipalities to assume this responsibility, they must implement ordinances, permits, and plans addressing runoff from third parties. Assessments for compliance with their ordinances, permits, and plans are essential for a municipality to ensure that third parties are not causing the municipality to be in violation of its municipal storm water permit. When conditions of non-compliance are determined, enforcement is necessary to ensure that violations of municipality ordinances and permits are corrected. When the Copermittees determine a violation of its storm water ordinance, it must pursue correction of the violation. Without enforcement, third parties do not have incentive to correct violations. USEPA supports enforcement by municipalities when it states “Effective inspection and enforcement requires [...] penalties to deter

¹³² USEPA, 1999. Storm Water O&M Fact Sheet, Catch Basin Cleaning. EPA 832-F-99-011.

¹³³ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

¹³⁴ USEPA, 2000. EPA Administered Permit Programs: The National Pollutant Discharge Elimination System. Code of Federal Regulations, Vol. 40, Part 122.

infractions and intervention by the municipal authority to correct violations. Enforcement mechanisms [...] also must be described.”¹³⁵

Education is a critical BMP and an important aspect of runoff management programs. USEPA finds that “An informed and knowledgeable community is critical to the success of a storm water management program since it helps ensure the following: Greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important, [and] greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of area waters.”¹³⁶

Regarding target audiences, USEPA also states “The public education program should use a mix of appropriate local strategies to address the viewpoints and concerns of a variety of audiences and communities, including minority and disadvantaged communities, as well as children.”

Finding D.3.g. Public participation during the development of runoff management programs is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.

Discussion of Finding D.3.g. This finding is supported by the Phase II Storm Water Regulations, which state “early and frequent public involvement can shorten implementation schedules and broaden public support for a program.” USEPA goes on to explain, “Public participation is likely to ensure a more successful storm water program by providing valuable expertise and a conduit to other programs and governments.”¹³⁷

Finding D.3.h. Retrofitting existing development with storm water treatment controls, including LID, is necessary to address storm water discharges from existing development that may cause or contribute to a condition of pollution or a violation of water quality standards. Although SSMP BMPs are required for redevelopment, the current rate of redevelopment will not address water quality problems in a timely manner. Cooperation with private landowners is necessary to effectively identify, implement, and maintain retrofit projects for the preservation, restoration, and enhancement of water quality.

Discussion of Finding D.3.h. Existing BMPs are not sufficient to protect the Beneficial Uses of receiving waters from storm water MS4 discharges, as evidenced by 303(d) listings and exceedances of Water Quality Objectives from the Copermittees’ monitoring reports. As recognized in USEPA guidance, waters in the region cannot be protected without also addressing degradation caused by storm

¹³⁵ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA/833-B-92-002.

¹³⁶ USEPA, 2000. Storm Water Phase II Compliance Assistance Guide. EPA 833-R-00-002.

¹³⁷ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68755.

water discharges from existing development. This requires more than just a new development and redeveloped sites program, which at best can only hold the line. For this reason USEPA recommends that storm water programs include a retrofit plan or program for retrofitting existing development.¹³⁸

Implementing more advanced BMPs, including the retrofitting of existing development with LID BMPs, is part of the iterative process. Based on the current rate of redevelopment compared to existing BMPs, the use of LID only on new and redevelopment will not adequately address current water quality problems, including downstream hydromodification. Retrofitting existing development is practicable for a municipality through a systematic evaluation, prioritization and implementation plan focused on impaired water bodies, pollutants of concern, areas of downstream hydromodification, feasibility and effective communication and cooperation with private property owners.

To actually improve the quality of receiving waters, discharges from existing developed sites need to be mitigated, which generally means implementation of measures to retrofit existing development sites with storm water control measures that can retain and/or treat storm water on site. Retrofitting existing development is possible and reasonable to significantly improve water quality in receiving waters.

Successful retrofitting programs have been implemented in such diverse locations as Seattle, Washington¹³⁹; Portland, Oregon¹⁴⁰; Santa Monica, California¹⁴¹; Kansas City, Kansas¹⁴²; and Montgomery County, MD¹⁴³. When appropriately applied as in this Order, retrofitting existing development meets MEP.

Finding D.4.a. Since runoff within a watershed can flow from and through multiple land uses and political jurisdictions, watershed-based runoff management can greatly enhance the protection of receiving waters. Such management provides a means to focus on the most important water quality problems in each watershed. By focusing on the most important water quality problems, watershed efforts can maximize protection of beneficial use in an efficient manner. Effective watershed-based runoff management actively reduces pollutant discharges and abates pollutant sources causing or contributing to watershed water quality problems. Watershed-based runoff management that does not actively reduce pollutant discharges and abate pollutant sources causing or contributing to watershed water quality problems can necessitate implementation of the iterative process outlined in section A.3 of the this Order. Watershed management of runoff does not require Copermittees to expend resources outside of their jurisdictions. In some cases, however, this added flexibility provides more, and possibly more effective, alternatives for minimizing waste discharges.

¹³⁸ USEPA, 2010. MS4 Permit Improvement Guide. EPA 833-R-10-001.

¹³⁹ SEA Street, http://www.seattle.gov/dpd/Planning/CityDesign/What_We_Do/Outreach/Folio/DPDS_008014.asp

¹⁴⁰ Clean River Rewards, <http://www.portlandonline.com/BES/index.cfm?c=edeef>

¹⁴¹ City of Santa Monica, Urban Runoff program, <http://www.smgov.net/Departments/OSE/categories/content.aspx?id=4007>

¹⁴² 10,000 Rain Gardens, <http://www.rainkc.com/>

¹⁴³ Rainscapes, <http://www.montgomerycountymd.gov/Content/DEP/Rainscapes/home.html>

Watershed management requires the Copermittees within a watershed to develop a watershed-based management strategy, which can then be implemented on a jurisdictional basis.

Discussion of Finding D.4.a. In recent years, addressing water quality issues from a watershed perspective has increasingly gained attention. Regarding watershed-based permitting, the USEPA *Watershed-Based NPDES Permitting Policy Statement* issued on Jan. 7, 2004 states the following:

USEPA continues to support a holistic watershed approach to water quality management. The process for developing and issuing NPDES permits on a watershed basis is an important tool in water quality management. USEPA believes that developing and issuing NPDES permits on a watershed basis can benefit all watershed stakeholders, from the NPDES permitting authority to local community members. A watershed-based approach to point source permitting under the NPDES program may serve as one innovative tool for achieving new efficiencies and environmental results. USEPA believes that watershed-based permitting can:

- Lead to more environmentally effective results;
- Emphasize measuring the effectiveness of targeted actions on improvements in water quality;
- Provide greater opportunities for trading and other market based approaches;
- Reduce the cost of improving the quality of the nation's waters;
- Foster more effective implementation of watershed plans, including total maximum daily loads (TMDLs); and
- Realize other ancillary benefits beyond those that have been achieved under the CWA (e.g., facilitate program integration including integration of Clean Water Act and Safe Drinking Water Act programs).

Watershed-based permitting is a process that ultimately produces NPDES permits that are issued to point sources on a geographic or watershed basis. In establishing point source controls in a watershed-based permit, the permitting authority may focus on watershed goals, and consider multiple pollutant sources and stressors, including the level of nonpoint source control that is practicable. In general, there are numerous permitting mechanisms that may be used to develop and issue permits within a watershed approach.

This USEPA guidance is in line with State Water Board and San Diego Water Board watershed management goals. For example, the State Water Board's TAC recommends watershed-based water quality protection, stating "Municipal permits should have watershed specific components." The TAC further recommends that "All NPDES permits and Waste Discharge Requirements should be considered for reissuance on a watershed basis."

In addition, the Basin Plan states that “public agencies and private organizations concerned with water resources have come to recognize that a comprehensive evaluation of pollutant contributions on a watershed scale is the only way to realistically assess cumulative impacts and formulate workable strategies to truly protect our water resources. Both water pollution and habitat degradation problems can best be solved by following a basin-wide approach.”

In light of USEPA’s policy statement and the State Water Board’s and San Diego Water Board’s watershed management goals, the San Diego Water Board seeks to expand watershed management in the regulation of runoff from the MS4. Watershed-based MS4 permits can provide for more effective receiving water quality protection by focusing on specific water quality problems. The entire watershed for the receiving water can be assessed, allowing for critical areas and practices to be targeted for corrective actions. Known sources of pollutants of concern can be investigated for potential water quality impacts. Problem areas can then be addressed, leading to eventual improvements in receiving water quality. Management of runoff on a watershed basis allows for specific water quality problems to be targeted so that efforts result in maximized water quality improvements.¹⁴⁴

Finding D.4.b. Some runoff issues, such as general education and training, can be effectively addressed on a regional basis. Regional approaches to runoff management can improve program consistency and promote sharing of resources, which can result in implementation of more efficient programs.

Discussion of Finding D.4.b. Copermittees in Riverside County participate in several runoff-related activities whose scope extends beyond the area subject to this Order. These include countywide activities (e.g., portions of Riverside County fall under the jurisdictions of the Santa Ana Water Board and California Regional Water Quality Control Board, Colorado River Region (Colorado River Water Board)), southern California, and statewide activities. Copermittees’ participation in these regional activities is generally directed at improving management capability, preventing redundancy and taking advantage of economies of scale. For instance, Copermittees seek to develop consistency between watershed and/or jurisdictional programs (e.g., through standards development), and to collaborate on certain program activities such as education, training, and monitoring.

Finding D.4.c. It is important for the Copermittees to coordinate their water quality protection and land use planning activities to achieve the greatest protection of receiving water bodies. Copermittee coordination with other watershed stakeholders, especially the State of California Department of Transportation, the U.S. federal government, sovereign American Indian tribes, and water and sewer districts, is also important.

¹⁴⁴ San Diego Water Board, 2004. San Diego County Municipal Storm Water Permit Reissuance Analysis Summary. P. 1.

Discussion of Finding D.4.c. Conventional planning and zoning can be limited in their ability to protect the environmental quality of creeks, rivers, and other water bodies. Watershed-based planning is often ignored, despite the fact that receiving waters unite land by collecting runoff from throughout the watershed. Since watersheds unite land, they can be used as an effective basis for planning. Watershed-based planning enables local and regional areas to realize economic, social, and other benefits associated with growth, while conserving the resources needed to sustain such growth, including water quality.

This type of planning can involve four steps: (1) Identify the watersheds shared by the participating jurisdictions; (2) Identify, assess, and prioritize the natural, social, and other resources in the watersheds; (3) Prioritize areas for growth, protection, and conservation, based on prioritized resources; and (4) Develop plans and regulations to guide growth and protect resources. Local governments have started with simple, yet effective, steps toward watershed planning, such as adopting a watershed-based planning approach, articulating the basic strategy in their General Plans, and beginning to pursue the basic strategy in collaboration with neighboring local governments who share the watersheds. Examples of new mechanisms created to facilitate watershed-based planning and zoning include the San Francisquito Creek Watershed Coordinated Resource Management Process and the Santa Clara Basin Watershed Management Initiative.¹⁴⁵

¹⁴⁵ Bay Area Stormwater Management Agencies Association., 1999. Start at the Source. Forbes Custom Publishing. Available on-line at: http://www.scvurppp-w2k.com/basmaa_satsm.htm

E. Statute and Regulatory Considerations

Finding E.1. The RWL language specified in this Order is consistent with language recommended by the USEPA and established in State Water Board Order WQ-99-05, *Own Motion Review of the Petition of Environmental Health Coalition to Review Waste Discharge Requirements Order No. 96-03, NPDES Permit No. CAS0108740*, adopted by the State Water Board on June 17, 1999. The RWL language in this Order requires compliance with water quality standards, which for storm water discharges is to be achieved through an iterative approach requiring the implementation of improved and better-tailored BMPs over time. Compliance with receiving water limitations based on applicable water quality standards is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality standards and the creation of conditions of pollution, contamination, or nuisance.

Discussion of Finding E.1. The RWL language in the Order requires storm water compliance with water quality standards through an iterative approach for implementing improved and better-tailored BMPs over time. The iterative BMP process requires the implementation of increasingly stringent BMPs until receiving water quality standards are achieved. This is necessary because implementation of BMPs alone cannot ensure attainment of receiving water quality standards. For example, a BMP that is effective in one situation may not be applicable in another. An iterative process of BMP development, implementation, and assessment is needed to promote consistent compliance with receiving water quality objectives. If assessment of a given BMP confirms that the BMP is ineffective, the iterative process should be restarted, with redevelopment of a new BMP that is anticipated to result in compliance with receiving water quality objectives.

The issue of whether storm water discharges from MS4s must meet water quality standards has been intensely debated in past years. The argument arises because CWA section 402(p) fails to clearly state that municipal dischargers of storm water must meet water quality standards. On the issue of industrial discharges of storm water, the statute clearly indicates that industrial dischargers must meet both (1) the technology-based standard of “best available technology economically achievable (BAT)” and (2) applicable water quality standards. On the issue of municipal discharges however, the statute states that municipal dischargers must meet (1) the technology-based standard of “MEP” and (2) “such other provisions that the Administrator or the State determines appropriate for the control of such pollutants.” The statute fails, however, to specifically state that municipal dischargers must meet water quality standards.

As a result, the municipal storm water dischargers have argued that they do not have to meet water quality standards; and that they only are required to meet MEP for storm water. Environmental interest groups maintain that not only do MS4 discharges have to meet water quality standards, but that MS4 permits must also comply with numeric effluent limitations for the purpose of meeting water quality standards. On the issue of water quality standards, USEPA, the State Water Board, and the San Diego Water

Board have consistently maintained that MS4s must indeed comply with water quality standards. On the issue of whether water quality standards must be met by numeric effluent limitations, USEPA, the State Water Board (in Orders WQ 91-03 and WQ 91-04), and the San Diego Water Board have maintained that MS4 permits can contain narrative requirements for the implementation of BMPs in place of numeric effluent limitations for storm water discharges.¹⁴⁶

In addition to relying on USEPA's legal opinion concluding that MS4s must meet MEP for storm water and water quality standards, the State Water Board also relied on the CWA's explicit authority for States to require "such other provisions that the Administrator or the State determines appropriate for the control of such pollutants" in addition to the technology-based standard of MEP for storm water discharges. To further support its conclusions that MS4 permit dischargers must meet water quality standards, the State Water Board relied on provisions of the CWC that specify that all waste discharge requirements must implement applicable Basin Plans and take into consideration the appropriate water quality objectives for the protection of beneficial uses.

The State Water Board first formally concluded that permits for MS4s must contain effluent limitations based on water quality standards in its Order WQ 91-03. In that Order, the State Water Board also concluded that it was appropriate for Regional Water Boards to achieve this result by requiring best management practices, rather than by inserting numeric effluent limitations into MS4 permits. Later, in Order WQ 98-01, the State Water Board prescribed specific precedent setting Receiving Water Limitations language to be included in all future MS4 permits. This language specifically requires that MS4 dischargers meet water quality standards and allows for the use of narrative BMPs (increasing in stringency and implemented in an iterative process) as the mechanism by which water quality standards can be met for storm water discharges.

In Order WQ 99-05, the State Water Board modified its receiving water limitations language in Order WQ 98-01 to meet specific objections by USEPA (the modifications resulted in stricter compliance with water quality standards). State Water Board Order WQ 99-05 states:

"In Order WQ 98-01, the State Board ordered that certain receiving water limitation language be included in future municipal storm water permits. Following inclusion of that language in permits issued by the San Francisco Bay and San Diego Water Boards for Vallejo and Riverside respectively, the USEPA objected to the permits. The USEPA objection was based on the receiving water limitation language. The USEPA has now issued those permits itself and has included receiving water limitation language it deems appropriate.

¹⁴⁶ For the most recent assessment, see Storm Water Panel Recommendations to the California State Water Resources Control Board, 2006. *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial, and Construction Activities.*

In light of USEPA's objection to the receiving water limitation language in Order WQ 98-01 and its adoption of alternative language, the State Board is revising its instructions regarding receiving water limitation language for municipal storm water permits. It is hereby ordered that Order WQ 98-01 will be amended to remove the receiving water limitation language contained therein and to substitute the USEPA language. Based on the reasons stated here, and as a precedent decision, the following receiving water limitation language shall be included in future municipal storm water permits."

In the 1999 case involving MS4 permits issued by USEPA to several Arizona cities (*Defenders of Wildlife v. Browner*, 1999, 197 F. 3d 1035), the United States Court of Appeals for the Ninth Circuit upheld USEPA's requirement for MS4 dischargers to meet water quality standards, but it did so on the basis of USEPA's discretion rather than on the basis of strict compliance with the CWA. In other words, while holding that the CWA does not require all MS4 discharges to comply strictly with state water quality standards, the Court also held that USEPA has the authority to determine that ensuring strict compliance with state water quality standards is necessary to control pollutants. On the question of whether MS4 permits must contain numeric effluent limitations, the court upheld USEPA's use of iterative BMPs in place of numeric effluent limitations for storm water discharges.

On October 14, 1999, the State Water Board issued a legal opinion on the federal appellate decision and provided advice to the Regional Water Boards on how to proceed in the future. In the memorandum, the State Water Board concludes that the recent Ninth Circuit opinion upholds the discretion of USEPA and the State to (continue to) issue storm water permits to MS4s that require compliance with water quality standards through iterative BMPs. Moreover, the memorandum states that "[...] because most MS4 discharges enter impaired water bodies, there is a real need for permits to include stringent requirements to protect those water bodies. As TMDLs are developed, it is likely that MS4s will have to participate in pollutant load reductions, and the MS4 permits are the most effective vehicles for those reductions." In summary, the State Water Board found that the Regional Water Boards should continue to include the RWL established in State Water Board Order WQ 99-05 in all future permits.

The issue of the RWLs language was also central to the Building Industry Association's (BIA's) (and others') appeal of San Diego Water Board Order No. 2001-01 (San Diego MS4 permit), which was used as a template for San Diego Water Board Order No. R9-2002-0001 (Orange County MS4 permit). BIA contended that the storm water MEP standard was a ceiling on what could be required of the Copermittees in implementing their runoff management programs, and that Order No. 2001-01's receiving water limitations requirements exceeded that ceiling. In other words, BIA argued that the Copermittees could not be required to comply with receiving water limitations if they necessitated efforts which went beyond the MEP standard. Again, the courts upheld the San Diego Water Board's discretion to require compliance with water quality standards in municipal storm water permits, without limitation. The Court

of Appeal, Fourth Appellate District found that the San Diego Water Board has “the authority to include a permit provision requiring compliance with water quality standards.”¹⁴⁷ On further appeal by BIA, the California State Supreme Court declined to hear the matter.

While implementation of the iterative BMP process is a means to achieve compliance with water quality objectives for storm water MS4 discharges, it does not shield the discharger from enforcement actions for continued non-compliance with water quality standards. Consistent with USEPA guidance,¹⁴⁸ regardless of whether or not an iterative process is being implemented, discharges that cause or contribute to a violation of water quality standards are in violation of Order No. R9-2010-0016.

Finding E.2. The Basin Plan, identifies the following existing and potential beneficial uses for surface waters in Riverside County: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PROC), Hydropower Generation (POW), Industrial Service Supply (IND), Ground Water Recharge (GWR), Contact Water Recreation (REC1), Non-contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Spawning, Reproduction and/or Early Development (SPWN) and Preservation of Biological Habitats of Special Significance (BIOL).

Discussion of Finding E.2. The southwestern portion of Riverside County is within the San Diego Region. The Riverside County portion of the San Diego Region falls within Santa Margarita Hydrologic Unit. The major streams within the Riverside County portion of the Santa Margarita Hydrologic Unit are the Santa Margarita River, Temecula Creek, and Murrieta Creek. Other surface water bodies include De Luz Creek, Sandia Canyon Creek, Warm Springs Creek, San Gertrudis Creek, and Wilson Creek. Major inland water bodies include Lake Skinner and Vail Lake.

The Riverside County portion of the Santa Margarita Hydrologic Unit includes unincorporated portions of Riverside County, the Cities of Menifee, Murrieta, Temecula, and Wildomar..

Based on the 2000 census, approximately 150,000 people resided within the permitted area. Since the 2000 census, however, several new developments, especially in the Cities of Temecula and Murrieta have increased the housing stock of the area, and the population is now significantly higher. As of January 1, 2009, approximately 250,000 people reside in the permitted area, with approximately 30,000 people living in the unincorporated area of Riverside County (31,163) and approximately 220,000 living in the Cities of Menifee (613), Murrieta (99,574), Temecula (102,604), and Wildomar (22,240).¹⁴⁹

¹⁴⁷ Building Industry Association et al., v. State Water Resources Control Board, et al. 2004.

¹⁴⁸ USEPA, 1998. Jan. 21, 1998 correspondence, “State Board/OCC File A-1041 for Orange County,” from Alexis Strauss to Walt Petit, and March 17, 1998 correspondence from Alexis Strauss to Walt Petit.

¹⁴⁹ Fiscal Year 2008-2009 Santa Margarita Watershed Annual Progress Report

Finding E.3. This Order is in conformance with State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California*, and the federal Antidegradation Policy described in 40 CFR 131.12.

Discussion of Finding E.3. Runoff management programs are required to be designed to reduce pollutants in storm water MS4 discharges to the maximum extent practicable and achieve compliance with water quality standards. Therefore, implementation of runoff management programs, which satisfy the requirements of Order No. R9-2010-0016, will prevent violations of receiving water quality standards. The Basin Plan states that “Water quality objectives must [...] conform to US EPA regulations covering antidegradation (40 CFR 131.12) and State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*.” As a result, when water quality standards are met, USEPA and State Water Board antidegradation policy requirements are also met.

Finding E.4. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Copermitttee from developing a non-point source plan, for the urban category, under CZARA. The San Diego Water Board addresses septic systems through the administration of other programs.

Discussion of Finding E.4. Coastal states are required to develop programs to protect coastal waters from nonpoint source pollution, as mandated by the federal CZARA. CZARA section 6217 identifies polluted runoff as a significant factor in coastal water degradation, and requires implementation of management measures and enforceable policies to restore and protect coastal waters. In lieu of developing a separate NPS program for the coastal zone, California’s NPS Pollution Control Program was updated in 2000 to address the requirements of both the CWA section 319 and the CZARA section 6217 on a statewide basis. The California Coastal Commission (CCC), the State Water Board, and the nine Regional Water Boards are the lead State agencies for upgrading the program, although 20 other State agencies also participate. Pursuant to the CZARA (section 6217(g)) Guidance Document the development of runoff management programs pursuant to this NPDES permit fulfills the need for cities within watersheds that discharge to the coastal zone to develop an runoff non-point source plan identified in the State’s Non-point Source Program Strategy and Implementation Plan.¹⁵⁰

¹⁵⁰ State Water Board/CCC, 2000. Nonpoint Source Program Strategy and Implementation Plan, 1998-2013 (PROSIP).

Finding E.5. Section 303(d)(1)(A) of the CWA requires that “Each state shall identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard (WQS) applicable to such waters.” The CWA also requires states to establish a priority ranking of impaired waterbodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired waterbodies is called the Section 303(d) List. The 2006 303(d) List was approved by the State Water Board on October 25, 2006. On June 28, 2007 the 2006 303(d) List for California was given final approval by the USEPA. The 303(d) List was recently updated, and on December 16, 2009 the 2008 303(d) List was approved by the San Diego Water Board. The 2008 303(d) List for the San Diego Region was approved by the State Water Board on August 4, 2010. The 2008 303(d) List is awaiting USEPA approval.

Discussion of Finding E.5. Section 303(d) of the federal CWA (CWA, 33 USC 1250, et seq., at 1313(d)), requires States to identify waters that do not meet water quality standards after applying certain required technology-based effluent limits (“impaired” water bodies). States are required to compile this information in a list and submit the list to USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters, or 303(d) List. As part of this listing process, States are required to prioritize waters/watersheds for future development of TMDLs. The State Water Board and Regional Water Boards have ongoing efforts to monitor and assess water quality, to prepare the 303(d) List, to prioritize waters/watersheds for TMDL development, and to subsequently develop TMDLs. TMDLs developed and adopted by the San Diego Water Board are incorporated into the Basin Plan via a Basin Plan Amendment as authorized under CWC section 13240.

The 2006 California 303(d) List identifies impaired receiving water bodies and their watersheds within the State of California.¹⁵¹ The San Diego Water Board recently updated the 303(d) List for the San Diego Region and adopted the 2008 303(d) List on December 16, 2009.¹⁵² The number of water bodies listed as impaired in the Riverside County portion of the Santa Margarita Hydrologic Unit increased from 6 water bodies (13 water body / impairing pollutant combinations) on the 2006 303(d) List to 9 water bodies (49 water body / impairing pollutant combinations) on the 2008 303(d) List, indicating the receiving water quality has been degraded further (see Table 2). Storm water and non-storm water runoff that is discharged from the Copermittees’ MS4s is a leading cause of receiving water quality impairment in the San Diego Region.

Finding E.6. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under CWA § 402. (33 U.S.C. §

¹⁵¹ The approved 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments is on-line at: http://www.waterboards.ca.gov/tmdl/303d_lists2006.html.

¹⁵² The 2008 Clean Water Act Section 303(d) List of Water Quality Limited Segments, approved by the San Diego Water Board and State Water Board, is available on-line at http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/303d_list/index.shtml

1342(p)(3)(B).) Second, the local agency Copermittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental and new dischargers who are issued NPDES permits for storm water and non-storm water discharges. Third, the local agency Copermittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. Fourth, the Copermittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in CWA § 301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their MS4 discharges (i.e. effluent limitations). Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under State law predates the enactment of Article XIII B, Section (6) of the California Constitution. Likewise, the provisions of this Order to implement TMDLs are federal mandates. The CWA requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. sec. 1313(d).) Once the UUSEPA or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable wasteload allocation. (40 C.F.R. sec. 122.44(d)(1)(vii)(B).)

Discussion of Finding E.6. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under CWA section 402, subdivision (p)(3)(B). (33 U.S.C. § 1342(p)(3)(B).) This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants in storm water to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (Natural Resources Defense Council, Inc. v. U.S. E.P.A. (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.)

The authority exercised under this Order is not reserved state authority under the CWA's savings clause (cf. *Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

Second, the local agency Copermittees' obligations under this Order are similar to, and in many respects less stringent than, the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few

inapplicable exceptions, the CWA regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne regulates the discharge of waste (CWC § 13263), both without regard to the source of the pollutant or waste. As a result, the “costs incurred by local agencies” to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and nongovernmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

The CWA and the Porter-Cologne Water Quality Control Act largely regulate storm water with an even hand, but to the extent there is any relaxation of this even-handed regulation, it is in favor of the local agencies. Except for municipal separate storm sewer systems, the CWA requires point source dischargers, including discharges of storm water associated with industrial or construction activity, to comply strictly with water quality standards. (33 U.S.C. § 1311(b)(1)(C), *Defenders of Wildlife v. Browner* (1999) 191 F.3d 1159, 1164-1165 [noting that industrial storm water discharges must strictly comply with water quality standards].) As discussed in prior State Water Board decisions, this Order does not require strict compliance with water quality standards. (State Water Board Order WQ 2001-15, p. 7.) The Order, therefore, regulates the discharge of waste in municipal storm water more leniently than the discharge of waste from non-governmental sources.

Third, the local agency Copermittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. The fact sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., *Apartment Ass’n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

Fourth, the Copermittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in CWA section 301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric effluent limitations on their storm water discharges. To the extent, the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (*Accord County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.) Likewise, the Copermittees have voluntarily sought a program-based municipal storm water permit in lieu of a numeric limitations approach on their storm water discharge. (See *City of Abilene v. U.S. E.P.A.* (5th Cir. 2003) 325 F.3d 657, 662-663 [noting that municipalities can choose between a management permit or a permit with numeric limitations].) The local agencies’ voluntary decision to file a report of waste discharge proposing a program-based permit is a voluntary decision not subject to subvention. (See *Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832, 845-848.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIII B, Section (6) of the California Constitution.

The San Diego Water Board recognizes that the Commission on State Mandates recently found that certain provisions within two municipal storm water permits constituted reimbursable state mandates within the meaning of the California Constitution. The Commission did not determine the validity of those provisions; it only determined that the State must reimburse the claimants for the costs of implementing those provisions. The decisions directly affect only the municipal storm water permits identified in the two test claims. That is, the effect of the decisions is limited to the provisions of Los Angeles Water Board Order 01-182 and San Diego Order R9-2007-0001 identified by the Commission as reimbursable state mandates. No other municipal storm water permits or provisions therein are directly affected by the decisions and the San Diego Water Board is not precluded from adopting similar or identical provisions in the Tentative Order. Subsequent proceedings before the Commission to determine the local governments entitled to reimbursement and the amount of reimbursement are underway before the Commission. Separately, the State Water Board and San Diego and Los Angeles Water Boards have challenged these decisions in court.

Finding E.7. Runoff treatment and/or mitigation must occur prior to the discharge of runoff into receiving waters. Treatment BMPs must not be constructed in waters of the U.S. or State unless the runoff flows are sufficiently pretreated to protect the values and functions of the water body. Federal regulations at 40 CFR 131.10(a) state that in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of a runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. Without federal authorization (e.g., pursuant to CWA § 404), waters of the U.S. may not be converted into, or used as, waste treatment or conveyance facilities. Similarly, waste discharge requirements pursuant to CWC §13260 are required for the conversion or use of waters of the State as waste treatment or conveyance facilities. Diversion from waters of the U.S./State to treatment facilities and subsequent return to waters of the U.S. is allowable, provided that the effluent complies with applicable NPDES requirements.

Discussion of Finding E.7. Runoff treatment and/or mitigation in accordance with any of the requirements in the Order must occur prior to the discharge of storm water into receiving waters. Allowing storm water polluted runoff to enter receiving waters prior to treatment to the MEP will result in degradation of the water body and potential

exceedances of water quality standards, from the discharge point to the point of dissipation, infiltration, or treatment. Furthermore, the construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. This requirement is supported by federal regulation 40 CFR 131.10(a) and USEPA guidance. According to USEPA,¹⁵³ "To the extent possible, municipalities should avoid locating structural controls in natural wetlands. Before considering siting of controls in a natural wetland, the municipality should demonstrate that it is not possible or practicable to construct them in sites that do not contain natural wetlands. Practices should be used that settle solids, regulate flow, and remove contaminants prior to discharging storm water into a wetland."

Additional Federal guidance discusses the implementation of wetlands to treat municipal storm water discharges (USEPA, 2000. *Guiding Principles for Constructed Treatment Wetlands: Providing for Water Quality and Wildlife Habitat*). It states:

"..treatment wetlands should not be constructed in a waters of the U.S. unless you can sufficiently pretreat the stormwater flows to protect the values and functions of the waters of the U.S. Because storm water is an unpredictable effluent source and can contain high levels of toxic substances, nutrients, and pathogens, we strongly encourage that you construct the treatment wetland in uplands and use best management practices in these projects."¹⁵⁴

Consistent with USEPA guidance, the conversion or use of waters of the U.S./State into runoff treatment facilities or conveyance facilities for untreated storm water discharges must be appropriately reviewed by both Federal and State resource agencies. Such projects may be subject to federal permitting pursuant to CWA section 404 if discharges of dredged or fill material is involved.

The placement of hydromodification controls within waters of the U.S./State may also be subject to federal and/or state permitting, but would not necessarily be considered a pollutant treatment BMP. Provided that grade control structures are designed to re-establish a natural channel gradient and correct excessive changes to the sediment transport regime caused by urbanization, rather than to create a series of artificial hydrological impoundments for the purpose of treating pollution, this type of project is not considered an in-stream treatment BMP.

Finding E.8. The issuance of waste discharge requirements and an NPDES permit for the discharge of runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 et seq.) in accordance with the CWC section 13389.

¹⁵³ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

¹⁵⁴ USEPA, 2000. Guiding Principles for Constructed Treatment Wetlands: Providing for Water Quality and Wildlife Habitat, (EPA 843-B-00-003).

Discussion of Finding E.8. CWC section 13389 exempts the adoption of waste discharge requirements (such as NPDES permits) from CEQA requirements: “Neither the State Water Board nor the Regional Water Boards shall be required to comply with the provisions of Chapter 3 (commencing with section 21100) of Division 13 of the Public Resources Code prior to the adoption of any waste discharge requirement, except requirements for new sources as defined in the Federal Water Pollution Control Act or acts amendatory thereof or supplementary thereto.”

This CEQA exemption was challenged during BIA’s (and others’) appeal of Order No. 2001-01. BIA contended that the CEQA exemption did not apply to permit requirements where the San Diego Water Board utilized its discretion to craft permit requirements which were more prescriptive than required by federal law. The Court of Appeal, Fourth Appellate District disagreed with this argument, stating “we also reject Building Industry’s argument to the extent it contends the statutory CEQA exemption in CWC section 13389 is inapplicable to a particular NPDES permit provision that is discretionary, rather than mandatory, under the CWA.”¹⁵⁵ On further appeal by BIA, the California State Supreme Court declined to hear the matter.

In a recent decision, the Court of Appeal of the State of California, Second Appellate District, upheld the CEQA exemption for municipal storm water NPDES permits (County of Los Angeles, et al. v. California State Water Resources Control Board, et al.).¹⁵⁶

Finding E.9. Storm water discharges from developed and developing areas in Riverside County are significant sources of certain pollutants that cause, may be causing, threatening to cause or contributing to water quality impairment in the waters of Riverside County. Furthermore, as delineated in the CWA section 303(d) list in Table 2, the San Diego Water Board has found that there is a reasonable potential that municipal storm water and non-storm water discharges from MS4s cause or may cause or contribute to an excursion above water quality standards for the following pollutants: Indicator Bacteria (including Fecal Coliform and E. Coli), Copper, Manganese, Iron, Chlorpyrifos, Diazinon, Sulfates, Phosphorous, Nitrogen, Total Dissolved Solids (TDS), and Toxicity. In accordance with CWA section 303(d), the San Diego Water Board is required to establish TMDLs for these pollutants to these waters to eliminate impairment and attain water quality standards. Therefore, certain early pollutant control actions and further pollutant impact assessments by the Copermittees are warranted and required pursuant to this Order.

Discussion of Finding E.9. CWA section 303(d)(1)(A) requires that:

“Each state must identify those waters within its boundaries for which the effluent limitations...are not stringent enough to implement any water quality standard (WQS) applicable to such waters.”

¹⁵⁵ Building Industry Association et al., v. State Water Resources Control Board, et al. 2004.

¹⁵⁶ Los Angeles County Super. Ct. No. BS080792. Partial publication dated November 6, 2006.

The CWA also requires states to establish a priority ranking of impaired water bodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired water bodies is called the 303(d) List. The current 303(d) List was approved by the State Water Board on October 25, 2006. On June 28, 2007 the 2006 303(d) List for California was given final approval by USEPA. Every two years the State of California is required by CWA section 303(d) and 40 CFR(130.7) to develop and submit to the USEPA for approval an updated 303(d) list of impaired water bodies. The San Diego Water Board recently updated the 303(d) List and adopted the 2008 303(d) List on December 16, 2009.¹⁵⁷ The 2008 303(d) List for the San Diego Region was approved by the State Water Board on August 4, 2010. The 2008 303(d) List is awaiting approval by the USEPA. The number of water bodies listed as impaired in the Riverside County portion of the Santa Margarita Hydrologic Unit increased from 6 water bodies (13 water body / pollutant combinations) on the 2006 303(d) List to 9 water bodies (49 water body / pollutant combinations) on the 2008 303(d) List, indicating the receiving water quality has been degraded further (see Table 2).

Multiple water bodies in Riverside County have been identified as impaired and placed on the 303(d) List. The 303(d) listing of a water body and subsequent TMDL development is required when regulations under current permits, such as Technology Based Effluent Limitations (TBELs), are not stringent enough to meet Water Quality Standards and protect the Beneficial Uses of Waters of the State.

Storm water discharges from developed and developing areas in Riverside County are a significant source of certain pollutants that cause, may be causing, threatening to cause, or contributing to water quality impairment in the waters of Riverside County. Furthermore, the CWA section 303(d) list indicates that there is a reasonable potential that municipal storm water and dry weather discharges from MS4s cause, or may cause, or contribute to an excursion above water quality standards for the following pollutants: Indicator Bacteria, Copper, Manganese, Iron, Chlorpyrifos, Sulfates, Phosphorous, Nitrogen, Total Dissolved Solids, Toxicity and Turbidity (see Table 2). In accordance with CWA section 303(d), the San Diego Water Board is required to establish TMDLs for these pollutants in these waters to eliminate impairment and attain water quality standards. Per 40 CFR(130.7), WLAs are required for all point sources, including storm water and non-storm water discharges from MS4s. Therefore, focused pollutant control actions and further pollutant impact assessments by the Copermittees are warranted and required pursuant to this Order.

MS4 Permits address only those TMDL WLAs that have been adopted by the San Diego Water Board and have been approved by the State Water Board, Office of Administrative Law (OAL) and USEPA. WLAs are portions of a receiving water's loading capacity that is allocated to one of its existing or future point sources of

¹⁵⁷ The 2008 Clean Water Act Section 303(d) List of Water Quality Limited Segments, approved by the San Diego Water Board and State Water Board, is available on-line at http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/303d_list/index.shtml

pollution. To date, no TMDLs and WLAs have been adopted to address impaired water bodies in the Riverside County portion of the Santa Margarita Hydrologic Unit. When TMDLs and WLAs are adopted and approved, they will be incorporated into the MS4 permit. The TMDL WLAs in MS4 Permits can be addressed using water quality-based numeric effluent limitations (WQBELs) calculated at end-of-pipe. WQBELs must be consistent with the assumptions and requirements of the WLAs.¹⁵⁸

Finding E.10. This Order requires each Copermitttee to effectively prohibit all types of unauthorized discharges of non-storm water into its MS4. However, historically pollutants have been identified as present in dry weather non-storm water discharges from the MS4s through 303(d) listings, monitoring conducted by the Copermitttees under Order No. R9-2004-001, and there are others expected to be present in dry weather non-storm water discharges because of the nature of these discharges. This Order includes action levels for pollutants in non-storm water, dry weather discharges from the MS4. The non-storm water action levels are designed to ensure that the Order's requirement to effectively prohibit all types of unauthorized discharges of non-storm water into the MS4 is being complied with. Non-storm water action levels in the Order are based upon numeric or narrative water quality objectives and criteria as outlined in the Basin Plan, the State Water Board's Water Quality Control Plan for Ocean Waters of California (Ocean Plan), and State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). An exceedance of an action level requires specified responsive action by the Copermitttees. This Order describes what actions the Copermitttees must take when an exceedance of an action level is observed. Exceedances of non-storm water action levels do not alone constitute a violation of this Order but could indicate non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4 or other prohibitions established in this Order. Failure to undertake required source investigation and elimination action following an exceedance of a non-storm water action level (NAL or action level) is a violation of this Order. The San Diego Water Board recognizes that use of action levels will not necessarily result in detection of all unauthorized sources of non-storm water discharges because there may be some discharges in which pollutants do not exceed established action levels. However, establishing NALs at levels appropriate to protect water quality standards is expected to lead to the identification of significant sources of pollutants in dry weather non-storm water discharges.

Discussion of Finding E.10. This Order includes the existing requirement that Copermitttees effectively prohibit all types of unauthorized non-storm water discharges in the MS4s. It also includes the following prohibition set forth in the Basin Plan: "The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in CWC section 13050 is prohibited." (Prohibition A.1.) As discussed in the Order's Findings on discharge characteristics, e.g., C.2., C.4., C.6., C.7., C.9., C.14., and C.15., the Copermitttees'

¹⁵⁸ Per 40 CFR 122.44(d)(1)(vii)(B)

reliance on BMPs for the past 20 years has not resulted in compliance with applicable water quality standards or compliance with the requirement to effectively prohibit all types of unauthorized discharges of non-storm water in the MS4. The San Diego Water Board has evaluated (in accordance with 40 CFR 122.44(d)(1)) past and existing control BMPs, non-storm water effluent monitoring results, the sensitivity of the species in receiving waters (e.g. endangered species), and the potential for effluent dilution, and has determined that existing BMPs to control pollutants in storm water discharges are not sufficient to protect water quality standards in receiving waters, and the existing requirement that Copermittees effectively prohibit all types of unauthorized non-storm water discharges into the MS4, historically results in the discharge of pollutants to the receiving waters.

Therefore it is appropriate to establish dry weather non-storm water action levels based upon established water quality standards to measure pollutants levels in the discharge of dry weather non-storm water that could indicate non-compliance with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4 and/or that these discharges are causing, or threatening to cause, a condition of pollution, contamination or nuisance in the receiving waters. NALs are not numeric effluent limitations. While not alone a violation of this Order, an exceedance of an NAL requires the Copermittees to initiate a series of source investigation and elimination actions to address the exceedance. Results from the NAL monitoring are to be used in developing the Copermittees annual work plans. Failure to undertake required source investigation and elimination action following an exceedance of an NAL is a violation of this Order. Also refer to further discussion in the Directives section C of the Fact Sheet.

A purpose of monitoring, required under this and previous Orders, as stated in the Monitoring and Reporting Program is to “detect and eliminate illicit discharges and illicit connections to the MS4” and to answer the following core management questions:

1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
2. What is the extent and magnitude of the current or potential receiving water problems?
3. What is the relative MS4 discharge contribution to the receiving water problem(s)?
4. What are the sources of MS4 discharge that contribute to receiving water problem(s)?
5. Are conditions in receiving waters getting better or worse?

For the past 20 years, Copermittees have utilized their illicit connection / illicit discharge (IC/ID) program to identify and eliminate non-storm water discharges that are sources of pollutants to the MS4. The Copermittees are also subject to the requirement to effectively prohibit all types of unauthorized discharges of non-storm water into the MS4s. Historically, discharges of unauthorized non-storm water do

occur, resulting in the discharge of pollutants to the receiving water. NALs have been included in this Order to ensure that the Copermittees comply with the requirement to effectively prohibit all types of unauthorized non-storm water discharges that are a source of pollutants in the receiving waters.

Finding E.12. With this Order, the San Diego Water Board has completed the re-issuance of the fourth iteration of the Phase I MS4 NPDES Permits for the Copermittees in the portions of San Diego County, Orange County, and Riverside County within the San Diego Region. The NPDES Permit requirements issued to the Copermittees in each county have substantially the same core requirements such as discharge prohibitions, receiving water limitations, jurisdictional components, and monitoring. In addition, the Copermittees cooperate regionally to develop monitoring with the Southern California Stormwater Monitoring Coalition and to develop program effectiveness with the California Stormwater Quality Association. Regional programs could improve the Copermittees' compliance with other permit components such as development of the Hydromodification Management Plans and Retrofitting Existing Development with more consistent implementation and cost sharing. Re-issuing the NPDES Permit requirements within five years for three counties under three different permits requires the San Diego Water Board to expend significant time and resources for issuance of the permits through three separate public proceedings, thereby greatly reducing the time and resources available to oversee compliance. Multiple permits also create confusion for determining compliance among regulated entities, especially the land development community. The San Diego Water Board recognizes that issuing a single MS4 permit for all Phase I entities in the San Diego Region will provide consistent implementation, improve communication among agencies within watersheds crossing multiple jurisdictions, and minimize staff resources spent with each permit renewal. The San Diego Water Board plans to develop a single regional MS4 permit prior to the expiration of this Order that will transfer the Copermittees' enrollment to the regional permit upon expiration of this Order.

Discussion of Finding E.12. With the advances in storm water science and regulation in the last decade, the additional complexity has resulted in a more significant amount of San Diego Water Board staff time and resources required to complete each Phase I MS4 Permit renewal. On average, the renewal of the fourth iteration of the Phase I MS4 Permits for each county has taken approximately 2 years and multiple staff to complete. The time and resources required to complete each renewal has diverted staff time and resources away from the San Diego Water Board's ability to oversee and ensure compliance with the permit provisions and requirements.

With the adoption of this Order, all the Phase I MS4s in the San Diego Region (i.e. Copermittees of Orange County, Riverside County and San Diego County) will essentially be subject to the same set of core requirements. Because there are now more similarities than differences among the permit provisions and requirements, developing and issuing a single regionwide permit to the Phase I MS4 entities may be appropriate with the next (i.e. fifth) iteration of the Phase I MS4 Permits.

This approach would provide a consistent set of regulatory requirements throughout the San Diego Region, thereby reducing the confusion that is created with different sets of requirements between areas in close proximity to each other. A regional set of requirements for the discharge prohibitions, receiving water limitations, jurisdictional program components (i.e., new development, construction, existing development, retrofitting), hydromodification management plans, low impact development design requirements, and monitoring would also make it easier for the programs in the three counties to share and transfer information and program efficiencies, and cooperate on a regionwide basis. Regionwide consistency would be especially beneficial where there are multiple counties involved in implementing permit requirements, such as the Santa Margarita watershed with parts of San Diego County and Riverside County, regional TMDLs (e.g., beaches and creeks bacteria TMDLs), or regional monitoring efforts or studies (e.g., Southern California Stormwater Monitoring Coalition, Bight '08).

An additional benefit would be the reduction of staff time and resources that will be required to renew future Phase I MS4 Permits, which would only be required once every 5 years for a single regionwide permit instead of once every 1 to 3 years for three separate permits. Because of these benefits, the San Diego Water Board plans to develop a single regional Phase I MS4 Permit with the next iteration of the San Diego County MS4 Permit, which will incorporate the Orange County and Riverside County Phase I MS4 entities upon the expiration of their respective permits, or sooner.

F. Public Process

Finding F.1. The San Diego Water Board has notified the Copermittees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing MS4 discharges of pollutants to waters of the U.S.

Discussion of Finding F.1. Public notification of development of a draft permit is required under Federal regulation 40 CFR 124.10(a)(1)(ii). This regulation states “(a) Scope. (1) The Director shall give public notice that the following actions have occurred: (ii) A draft permit has been prepared under Sec. 124.6(d).” Public notifications “shall allow at least 30 days for public comment,” as required under Federal regulation 40 CFR 124.10(b)(1).

Finding F.2. The San Diego Water Board has held a public hearing on November 10, 2010 and heard and considered all comments pertaining to the terms and conditions of this Order.

Discussion of Finding F.2. Public hearings are required under CWC section 13378, which states “Waste discharge requirements and dredged or fill material permits shall be adopted only after notice and any necessary hearing.” Federal regulation 40 CFR 124.12(a)(1) also requires public hearings for draft permits, stating “The Director shall hold a public hearing whenever he or she finds, on the basis or requests, a significant degree of public interest in a draft permit(s).” Regarding public notice of a public hearing, Federal regulation 40 CFR 124.10(b)(2) states that “Public notice of a public hearing shall be given at least 30 days before the hearing.”

IX. DIRECTIVES

This section discusses significant changes which have been made to the requirements of the Order from the requirements which were previously included in Order No. R9-2004-001. For each section of the Order that has been changed there is a discussion which describes the change that was made and provides the rationale for the change. In addition, comments on the Copermittees' ROWD recommendations, as they pertain to each changed requirement of the Order, are provided.

Requirements of the Order that are not discussed in this section have not been significantly changed from those requirements previously included in Order No. R9-2004-001. For such requirements, discussions and rationale for the requirements can be found in section VIII of the Fact Sheet/Technical Report for San Diego Water Board Order No. R9-2004-001, dated July 14, 2004. Section VIII also provides additional background information for those requirements that have undergone significant change which are described in detail in this report. The Fact Sheet/Technical Report is available for download at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/stormwater/rsd_stormwater.shtml

Legal authority citations are provided for each major section of the Order. These citations apply to all applicable requirements within the section for which they are provided.

A. Prohibitions and Receiving Water Limitations

The following legal authority applies to section A:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: The Water Quality Control Plan for the San Diego Basin (Basin Plan) contains the following waste discharge prohibition: "The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination, or nuisance as defined in CWC section 13050, is prohibited."

CWC section 13050(l) states "(1) 'Pollution' means an alteration of the quality of waters of the state by waste to a degree which unreasonably affects either of the following: (A) The water for beneficial uses. (B) Facilities which serve beneficial uses. (2) 'Pollution' may include "contamination."

CWC section 13050(k) states "Contamination" means an impairment of the quality of waters of the state by waste to a degree which creates a hazard to public health through poisoning or through the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected."

CWC section 13050(m) states "Nuisance" means anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes."

CWC section 13241 requires each Regional Water Board to "establish such water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance [...]."

CWC section 13243 provides that "A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted."

CWC section 13263(a) provides that waste discharge requirements prescribed by the San Diego Water Board implement the Basin Plan.

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in storm water runoff from commercial, residential, industrial, and construction land uses or activities.

Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(A - D) require municipalities to have legal authority to control various discharges to their MS4.

Federal NPDES regulation 40 CFR 122.44(d)(1) requires municipal storm water permits to include any requirements necessary to "[a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality."

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to "control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality."

Section A of the Order combines two previously distinct requirement sections – Prohibitions and Receiving Water Limitations. These sections have been combined into one section for organization purposes and to reduce redundancy, since both sections address the same issue. These changes have no net effect on the implementation and enforcement of the Order.

Section A.3 describes the “iterative process.” The Copermitees must reduce the discharge of storm water pollutants to the MEP and ensure that their MS4 discharges do not cause or contribute to violations of water quality standards. If the Copermitees have reduced storm water pollutant discharges to the MEP, but their discharges are still causing or contributing to violations of water quality standards, the Order provides a clear and detailed process for the Copermitees to follow. This process is often referred to as the “iterative process” and can be found at section A.3. The language of section A.3 is prescribed by the State Water Board and is included in MS4 permits statewide. Section A.3 essentially requires additional BMPs to be implemented until MS4 storm water discharges no longer cause or contribute to a violation of water quality standards.

The State Policy with respect to maintaining high quality waters has been added to clarify that discharges from the MS4 that cause or contribute to a violation of the Policy for high quality waters is prohibited.

The Copermitee must notify the San Diego Water Board of storm water discharges that are causing or contributing to an exceedance of applicable water quality standards. This notification can be in the form of an email or letter, with a summary of the pollutants in the storm water discharge that are exceeding the applicable water quality standards, and where and when the exceedances occurred. After notification is provided to the San Diego Water Board, the Copermitee must submit a report that describes the BMPs that are currently being implemented and the additional BMPs that will be implemented by the Copermitee to prevent or reduce the pollutants in the storm water discharge from causing or contributing to the exceedances of the applicable water quality standards. The report is separate from the notification and may be submitted with the Annual Report, unless the San Diego Water Board requests an earlier submittal of the report.

B. Non-Storm Water Discharges

The following legal authority applies to section B:

Broad Legal Authority: CWA sections 402, 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F), 40 CFR 122.26(d)(2)(iv) and 40 CFR 122.44.

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B) requires MS4 operators “to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittees shall prevent all types of illicit discharges into the MS4 except for certain non-storm water discharges.

Section B of the Order has been reworded to simplify and clarify the requirements for addressing non-storm water discharges that are not prohibited. This rewording has no net effect on the implementation and enforcement of the Order.

Section B.2 identifies categories of non-storm water discharges that do not have to be addressed as illicit discharges unless identified by a Copermittee or the San Diego Water Board as a category that is a source of pollutants to waters of the U.S. If a Copermittee or the San Diego Water Board identifies a category of non-storm water discharges as a source of pollutants to waters of the U.S., the category must be addressed through a program, including inspections, to implement and enforce an ordinance, orders, or other similar means to prevent illicit discharges to the MS4.¹⁵⁹

The program includes enforcement of an ordinance, orders, or other legal authority that prohibits the category of non-storm water discharges from entering the MS4. Implementation of the program is through the IC/ID program, described in Directive F.4, which includes requirements for investigating/inspecting illicit discharges and enforcing the ordinance, orders, or other legal authority that prohibits the category of non-storm water discharges from entering the MS4.

The federal regulations list several categories of non-storm water discharges or flows that do not have to be addressed by the program unless a Copermittee or the San Diego Water Board identifies a category as a source of pollutants to waters of the U.S. These categories are often referred to as “exempt” discharges that are “allowed” to be discharged into the MS4. There are two types of categories of non-storm water discharges or flows that are considered “exempt”: 1) anthropogenic (e.g., water line

¹⁵⁹ Code of Federal Regulations Title 40 section 122.26(d)(2)(iv)(B)(1)

flushing, air conditioner condensate), and 2) non-anthropogenic (e.g., springs, rising ground water).

For “exempt” anthropogenic categories of non-storm water discharges or flows that are identified as sources of pollutants to waters of the U.S., those categories become illicit discharges and are no longer “allowed” to be discharged to the MS4. The IC/ID program addresses those discharges (i.e. investigation of illicit discharges and enforcement of ordinances prohibiting illicit discharges to the MS4).

For “exempt” non-anthropogenic discharges or flows that are identified as sources of pollutants to waters of the U.S., the IC/ID program cannot be fully implemented with enforcement. Categories of non-storm water discharges or flows that originate due to a natural source (e.g., springs or rising ground water) can be investigated and identified, but it would be difficult to enforce ordinances prohibiting these discharges to the MS4. In these cases, the Copermittee may need to implement other control measures to prevent the illicit discharges from non-anthropogenic sources from entering the MS4 (e.g., sealing the storm drains to prevent infiltration).

The IC/ID program also identifies categories of “exempt” non-storm water discharges that are sources of pollutants to waters of the U.S. If an individual discharge within a category of “exempt” non-storm water discharges is found to be an isolated incidence or source of pollutants and not representative of the category as a whole, the entire category does not need to be removed from the list of “exempt” categories of non-storm water discharges. If, however, the Copermittees or the San Diego Water Board find that a pattern of isolated incidents or sources are consistently discharging pollutants to waters of the U.S. over a period of time, or throughout the region, the category must be identified as a source of pollutants to waters of the U.S. warranting removal from the list of “exempt” categories of non-storm water discharges.

The San Diego Water Board and several municipalities throughout the San Diego Region (e.g., cities and counties of Orange County and San Diego County) have reported and/or identified runoff originating from landscape irrigation as likely sources of dry weather flows conveying pollutants into their MS4s. This is also supported by legislation (Assembly Bill 1881) recently enacted by the State of California, which has identified runoff resulting from over irrigation not only as a waste of water resources, but also as a source of pollutants to the state’s waterways. Discharges from landscape irrigation have been identified by the San Diego Water Board and the Copermittees as a source of pollutants and conveyance of pollutants to waters of the United States in the following:

- In educational materials developed by The Cities and County of Riverside “Only Rain in the Storm Drain” Pollution Prevention Program, the Landscape and Garden brochure states: “Soil, yard wastes, *over-watering* [emphasis added] and garden chemicals become part of the urban runoff mix that winds it way through streets, gutters and storm drains before entering lakes, rivers, streams, etc.”

- In an educational survey developed by The Cities and County of Riverside “Only Rain in the Storm Drain” Pollution Prevention Program distributed at Public Outreach events, the answer to the question about where lawn irrigation water goes states: *“Water that leaves your lawn from irrigation...can pick up motor oil and grease from vehicles, excess fertilizer from your lawn, bacteria from pet waste, and excess pesticides from your yard. These pollutants can be carried down streets and storm drains directly to our streams, lakes and rivers without treatment!”*
- In 2006, the State Water Board allocated Grant funding to the Smarttimer/Edgescape Evaluation Program (SEEP). The project targets irrigation runoff by retrofitting existing development and documenting the conservation and runoff improvements. The Grant Application states that “Irrigation runoff contributes flow & pollutant loads to creeks and beaches that are 303(d) listed for bacteria indicators”. Furthermore, the grant application states that “Regional program managers agree that the reduction and/or elimination of irrigation-related urban flows and associated pollutant loads may be key to successful attainment of water quality and beneficial use goals as outlined in the Basin Plan and Bacteria TMDL over the long term”. This is reinforced in the project descriptions and objectives: “Elevated dry-weather storm drain flows, composed primarily ... of landscape irrigation water wasted as runoff, carry pollutants that impair recreational use and aquatic habitats all along Southern California’s urbanized coastline. Storm drain systems carry the wasted water, along with landscape derived pollutants such as bacteria, nutrients and pesticides, to local creeks and the ocean. Given the local Mediterranean climate, excessive perennial dry season stream flows are an unnatural hydrologic pattern, causing species shifts in local riparian communities and warm, unseasonal contaminated freshwater plumes in the near-shore marine environment”. The basis of this grant project is that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants. In addition, they indicate that the alteration of natural flows is impacting the Beneficial Uses of waters of the State. The results of this study can be applied broadly to any area where over-irrigation takes place, including Riverside County. Preliminary results from the study indicate that that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants.
- In the Watershed Action Plan Annual Report(s) for the 2006-2007 reporting period, submitted by the County of Orange, Orange County Flood Control District and Copermittees within the San Juan Creek, Laguna Coastal Streams, Aliso Creek, and Dana Point Coastal Streams Watersheds, the Orange County Copermittees, within their Watershed Action Strategy Table for Fecal Indicator Bacteria state that *“Support programs to reduce or eliminate the discharge of anthropogenic dry weather nuisance flow throughout the [...] watershed. Dry weather flow is the transport medium for bacteria and other 303(d) constituents of concern”*. Additionally, they state that *“conditions in the MS4 contribute to high seasonal bacteria propagation in-pipe during warm weather. Landscape irrigation is a major*

contributor to dry weather flow, both as surface runoff due to over-irrigation and overspray onto pavements; and as subsurface seepage that finds its way into the MS4."

- In the Carlsbad Watershed Urban Runoff Management Program (WURMP) Fiscal Year 2008 Annual Report, submitted by the Carlsbad Watershed Copermittees (Cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista, and the County of San Diego), the Carlsbad Watershed Copermittees state *"The Carlsbad Watershed Management Area (WMA) collective watershed strategy identifies bacteria, sediment, and nutrients as high priority water quality pollutants in the Agua Hedionda (904.3 – bacteria and sediment), Buena Vista (904.2 – bacteria), and San Marcos Creek (904.5 – nutrients) Hydrologic Areas. Bacteria, sediment, and nutrients have been identified as potential discharges from over-irrigation."*
- In Appendix D of the San Diego Bay WURMP 2007-2008 Annual Report, submitted by the San Diego Bay Watershed Copermittees (Cities of Chula Vista, Coronado, Imperial Beach, La Mesa, Lemon Grove, National City, and San Diego, the County of San Diego, the Port of San Diego, and the San Diego County Airport Authority), the San Diego Bay Watershed Copermittees identified *over-irrigation of lawns* from business and/or residential land uses as a likely pollutant source for bacteria, pesticides, and sediment.
- On September 28, 2006 Governor Arnold Schwarzenegger approved Assembly Bill 1881, The Water Conservation in Landscaping Act (AB 1881, Laird). The act requires cities, counties, and charter cities and charter counties, to adopt landscape water conservation ordinances by January 1, 2010. Additionally, the law required the Department of Water Resources (DWR) to prepare a Model Water Efficient Landscape Ordinance for use by local agencies. The Water Efficient Landscape Ordinance was approved by the Office of Administrative Law on September 10, 2009. All local agencies were required to adopt a water efficient landscape ordinance by January 1, 2010. Local agencies could adopt the Water Efficient Landscape Ordinance developed by DWR, or an ordinance considered at least as effective as the Model Ordinance. The Water Efficient Landscape Ordinance includes a requirement that local agencies prohibit runoff from irrigation (§ 493.2): *"Local agencies shall prevent water waste resulting from inefficient landscape irrigation by prohibiting runoff from leaving the target landscape [emphasis added] due to low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, parking lots, or structures. Penalties for violation of these prohibitions shall be established locally."*
- On October 08, 2009, the State of California Department of Water Resources issued a letter to all cities and counties within the State of California giving reminder of required adoption of the Water Efficient Landscape Ordinance. The letter states that: *"Other benefits include reduced irrigation runoff, reduced*

pollution of waterways [*emphasis added*], drought resistance, and less green waste.”

- On December 18, 2009, the San Diego Water Board adopted Order. No. R9-2009-0002, the fourth-term Orange County permit, which found that over-irrigation (landscape irrigation, irrigation water and lawn watering) into the MS4 is a source and conveyance of pollutants. Landscape irrigation, irrigation water, and lawn watering were categories removed from the list of non-storm water discharges not prohibited to be discharged into the MS4.
- The San Diego Water Board has responded to complaints about and observed runoff from over-irrigation entering the MS4s in the Riverside County portion of the San Diego Region.

Several significant changes have been made to the list of categories of non-storm water discharges that do not have to be addressed as illicit discharges. A footnote has been added to dechlorinated swimming pool discharges on the list to specify that this category does not include saline swimming pool discharges. The list has been modified to remove the landscape irrigation, irrigation water and lawn watering “exempt” discharge categories (i.e. no longer “allowed” to enter the MS4). Language has been also added to the section to clarify differences in the federal regulations under 40 CFR 122.26(d)(iv)(B) and for the authority of the Director (i.e. San Diego Water Board) in regards to identifying exempted discharges.

Because the landscape irrigation, irrigation water and lawn watering “exempt” discharge categories have been removed from section B, per identification as a source and conveyance of pollutants to waters of the United States when discharged from the MS4, these illicit discharges must be addressed per 40 CFR 122.26(d)(iv)(B). The San Diego Water Board is requiring these discharges be addressed as illicit discharges by the Copermittees. This is consistent with the Federal Regulations (55 FR 48037). Thus, the discharges are to be prohibited via ordinance, order, or similar means and incorporated as part of the Copermittees IC/ID program.

Section B.3 has been clarified by the recognition of building fire suppression system maintenance (e.g. fire sprinklers) as an illicit discharge. The San Diego Water Board has found that such discharges contain waste, and as such the San Diego Water Board is requiring these discharges be addressed as illicit discharges by the Copermittees. This is consistent with the Federal Regulations (55 FR 48037). Thus, the discharges are to be prohibited via ordinance, order or similar means and incorporated as part of the Copermittees IC/ID program.

C. Non Storm Water Dry Weather Action Levels

The following legal authority applies to section C:

Broad Legal Authority: CWA section 402, 402(p)(3)(B)(ii), CWC §13377. 40 CFR 122.26(d)(2)(i)(B, C, E, and F), and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority:

CWA section 402(p)(3)(B)(ii) provides that MS4 permits “shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) provides that the proposed management program “shall be based on a description of a program including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittee include in its proposed management program “a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system; this program description shall address all types of illicit discharges, however the [listed exempt] category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(2) provides that the Copermittee include in its proposed management program “a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(3) provides that the Copermittee include in its proposed management program “procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water.”

Section C establishes non-storm water dry weather action levels (see also Finding C.14, Finding E.10, and the Discussion for those sections).

Non-exempted, non-storm water discharges are to be effectively prohibited from entering the MS4 or become subject to another NPDES permit (see Federal Register, Vol. 55, No. 222, pg. 47995). Conveyances which continue to accept non-exempt, non-storm water discharges do not meet the definition of MS4 and are not subject to section 402(p)(3)(B) of the CWA unless the discharges are issued separate NPDES permits. Instead, conveyances that continue to accept non-exempt, non-storm water

discharges that do not have a separate NPDES permit are subject to sections 301 and 402 of the CWA (see Federal Register, Vol. 55, No. 222, pg. 48037).

The Order requires the sampling of a representative percentage of major outfalls and other identified stations within each hydrologic subarea. While it is important to assess all major outfall discharges from the MS4 into receiving waters, to date the Copermittees have implemented a dry-weather monitoring program that has consisted of 4 water quality parameters collected in receiving waters, not major outfalls. In the ROWD the Copermittees have proposed relocating IC/ID (non-storm water) monitoring sites to major outfalls and increasing the level of monitoring. It is expected that the Copermittees will need to utilize current 303(d) listings, land use, the history of IC/ID complaints and the sensitivity of receiving waters in the selection and annual sampling of a representative percentage of major outfalls in accordance with the requirements under section C.4. It is expected the selection of major outfalls will be done in conjunction with the Copermittees' required updates to the MS4 map in section F.4.b of the Order.

The Order requires an increase in the number and type of pollutants sampled in non-storm water from major outfalls. To date, Copermittees have not sampled major outfalls, only receiving waters, and sampling was limited to total dissolved solids, dissolved oxygen, pH, turbidity and specific conductance. Additional sampling was generally, though not always, conducted by Copermittees if initial sampling exceeded a Copermittee threshold. With the exception of dissolved oxygen, the current thresholds do not represent water quality objectives, as sampling may not trigger a threshold, but may still be exceeding a water quality objective. This Order requires non-storm water discharges to be sampled for additional pollutants including indicator bacteria, nutrients (nitrate and phosphorous), Methylene Blue Active Substances (MBAS), pesticides and metals. These pollutants are expected to be present in non-storm water discharges, are pollutants for which receiving waters are 303(d) listed as impaired or have been identified as present through receiving water monitoring.

Background and Rationale for Requirements

The San Diego Water Board developed the requirements for dry weather, non-storm water action levels based upon an evaluation of existing controls, monitoring and reporting programs (effluent and receiving water), special studies, and based upon Findings C.1 C.3, C.4, C.6, C.7 and C.14. In addition, the Copermittees' ROWD supports the establishment of action levels which can be used in the effectiveness assessment program to ensure a minimum level of program implementation and identify shortcomings in their MS4 programs.¹⁶⁰

¹⁶⁰ Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

Water Quality Control Plan

CWA section 303(c) requires the state to establish Water Quality Standards (WQS). WQS define the water quality goals of a water body, or part thereof, by designating their use or uses to be made of the water and by setting criteria necessary to protect those uses.

The San Diego Water Board's Water Quality Control Plan for the San Diego Basin (Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The Basin Plan was adopted by the San Diego Water Board on September 8, 1994, and was subsequently approved by the State Water Board on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the San Diego Water Board and State Water Board.

National Toxics Rule (NTR) and California Toxics Rule (CTR)

The USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995, and November 9, 1999. The CTR was adopted by USEPA on May 18, 2000,¹⁶¹ and amended on February 13, 2001.¹⁶² These rules include water quality criteria for priority pollutants and are applicable to non-storm water discharges from the MS4. Criteria for 126 priority pollutants are established by the CTR. USEPA promulgated this rule to fill a gap in California water quality standards that was created in 1994 when a California court overturned the State's water quality control plans containing criteria for priority toxic pollutants. The federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the CWA.

Antidegradation Policy

Section 131.12 of 40 CFR requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Boards' Basin Plans implement, and incorporate by reference, both the State and federal antidegradation policies. Permitted non-storm water discharges from the MS4 are consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

¹⁶¹ Federal Register / Vol. 65, No. 97 / May 18, 2000 / Rules and Regulation P. 31861-31719; Code of Federal Regulations Title 40 Part 131

¹⁶² Federal Register / Vol. 66, No. 30 / February 13, 2001 / Rules and Regulation P. 9960-9962; Code of Federal Regulations Title 40 Part 131

Sources of Drinking Water Policy

State Water Board Resolution No. 88-63 establishes state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal and domestic supplies. Requirements of this Order include action levels, where appropriate, reflecting municipal and domestic supply use as all waters within the County of Riverside under this Order are specifically assigned municipal and domestic supply as a Beneficial Use.

Monitoring and Reporting

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement state and federal regulations. The Monitoring and Reporting Program can be found as Attachment E of the Order.

Dilution or Mixing Zones

In order to protect the Beneficial Uses of receiving waters from pollutants as a result of non-storm water MS4 discharges, this Order does not provide for a mixing zone or a zone of initial dilution except when the discharge is to the surf zone.

The San Diego Region has predominantly intermittent and ephemeral rivers and streams (Inland Surface Waters) which vary in flow volume and duration at spatial and temporal scales. Therefore, it is assumed that any non-storm water discharge from the MS4 into the receiving water is likely to be of a quantity and duration that does not allow for dilution or mixing. For ephemeral systems, non-storm water discharges from the MS4 are likely to be the only surface flows present within the receiving water during the dry season. Additionally, all surface waters within the jurisdiction of this Order have been designated in the Basin Plan with municipal supply (MUN) as a beneficial use.

It is appropriate to base numeric action levels for dry weather non-storm water discharges on these considerations.

Establishment of Action Levels

Action levels in the Order are based upon numeric or narrative water quality objectives and criteria as defined in the Basin Plan and the State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The San Diego Water Board recognizes that use of action levels will not necessarily result in detection of all unauthorized sources of non-storm water discharges because there may be some discharges in which pollutants do not exceed established action levels.

In June of 2006, the State Water Board's Blue Ribbon Storm Water Panel released its report titled 'The Feasibility of Numerical Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.' The

report only examined numerical limits as applied to storm water and not non-storm water. In the recommendations, the Blue Ribbon panel proposed storm water action levels which are computed using statistical based population approaches. For example, section D of the Permit uses a recommended statistical approach to develop storm water action levels. The Blue Ribbon panel did not examine the efficacy of action levels or recommendations for development of action levels for non-storm water discharges.

For discharges to inland surface waters, action levels are based on the USEPA water quality criteria for the protection of aquatic species, the USEPA water quality criteria for the protection of human health, water quality criteria and objectives in the applicable State plans, effluent concentration available using best available technology, and 40 CFR 131.38. Since the assumed initial dilution factor for the discharge is zero and a mixing zone is not allowed, a non-storm water discharge from the MS4 could not cause an excursion from numeric receiving water quality objectives if the discharge is in compliance with the action levels contained in the Order.

Dry weather monitoring of non-storm water conducted in receiving waters under the previous Order (Order No. R9-2004-001), which relies on BMPs as controls to protect water quality standards, has identified the presence of pollutants commonly found in non-storm water discharges. Monitoring of Indicator Bacteria, pH, Dissolved Oxygen, Phosphorus, Nitrate, Turbidity, Methylene Blue Active Substances (MBAS), and metals in receiving waters has shown concentrations that exceed state water quality criteria. It is appropriate to establish numeric action levels for these pollutants to ensure that the Copermittees are complying with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4s.

Water Quality Limited Segments on the current 303(d) list (2008) within the jurisdiction of this Order have been identified due to exceedances of Sulfate and Total Dissolved Solids criteria from a source which is currently unknown (see Table 2). These pollutants are not monitored for in non-storm water effluent under the current non-storm water MS4 monitoring program. While this Order does not establish a numeric action level for these constituents at this time, this Order now requires non-storm water MS4 discharge monitoring to include monitoring for Sulfates, Total Dissolved Solids, and Chlorides.

Priority pollutants analyzed included Cadmium, Copper, Chromium, Lead, Nickel, Silver and Zinc. These priority pollutants are likely to be present in non-storm water MS4 discharges (see Finding C.3) though dissolved metal effluent monitoring was not conducted under the previous Order. The most stringent applicable water quality criteria have been identified for these seven metals and, excluding Chromium (VI), and all are dependent on receiving water hardness. The conversion factors for Cadmium and Lead are also water hardness dependent (40 CFR 131.38(b)(2)). These levels are established as the action levels for these constituents.

DIRECTIVES C

While effluent monitoring is not available from the previous Order, the monitoring that was done for metal concentrations in receiving waters often lacked a measurement of receiving water hardness. Due to the multiple point source discharges of non-storm water from the MS4, a discharge may enter a receiving water whose hardness will vary temporally. In addition, hardness may vary spatially within and among receiving waters.

However, other information is available to determine the appropriateness of an action level. Existing monitoring concentrations absent of receiving water data, no dilution credit or mixing zone allowance, current 303(d) listings of receiving waters for other pollutants, receiving water monitoring data, and the classification of waters as critical habitat for endangered and species of concern, provide evidence that NALs are appropriate for these priority pollutants at this time in order to ensure that the Copermittees comply with the requirement to effectively prohibit all types of unauthorized non-storm water discharges into the MS4s.

Existing receiving water pollutant concentration data (see attachment F) provides evidence that it is appropriate to include NAL based comparisons to water quality criteria given observed hardness levels, assumption of a conservative hardness level when data is absent, or designation of receiving waters as having MUN as a beneficial use. Although dry weather receiving water data is limited (see attachment F), data has been collected that documents exceedances of CTR criteria for Lead, Nickel, and Copper given the measured hardness for the receiving water. Absent receiving water hardness, Zinc has been detected in receiving waters at concentrations which may be in exceedance of CTR criteria depending on receiving water hardness. Additionally, Cadmium and Chromium were detected at elevated levels, though the concentrations were within CTR criteria given the observed receiving water hardness. However, these detections typically coincided with detections of other exceedances of water quality standards for other pollutants, including metals. Chromium and Nickel were also detected at levels that did not exceed CTR, but did exceed Maximum Contaminant Levels (MCLs) for receiving waters.

As discussed, inland surface waters have conservatively been allotted a mixing zone and dilution credit of zero. As such, any discharge of these priority pollutants is likely to impact the receiving water, regardless of the quantity or rate of discharge.

As discussed in Finding C.7 and discussion, multiple receiving waters within the County of Riverside are 303(d) listed for a number of pollutants, including toxicity. The 303(d) listing of a water body as impaired provides evidence that the receiving water(s) are already experiencing negative impacts. These water quality limited segments are more susceptible to degradation from the synergistic addition of more pollutants, even from upstream discharges. It is therefore appropriate to include NALs designed to ensure that the Copermittees are complying with the requirement to effectively prohibit all types of unauthorized discharges of non-storm water into the MS4s.

DIRECTIVES C

Copermittees have monitored the receiving waters for MS4 discharges pursuant to requirements under Order No. R9-2004-001. Dry weather receiving water data indicates poor conditions within waters receiving non-storm water MS4 discharges. Bioassessment conducted under the Order (2004-present) has documented all non-reference sites as consistently having poor or very poor IBI scores, likely due in part to receiving water chemistry and toxicity¹⁶³.

Receiving waters and downstream receiving waters within the jurisdiction of this Order contain species and/or are classified as critical habitat (or are exempted pursuant to Integrated National Resource Management Plans) for endangered, threatened, and state species of special concern including, but not limited to, *E. newberryi*, *A. marmorata pallida*, and *G. orcutti*.

Furthermore, the Santa Margarita River has been designated with the RARE beneficial use.

Dry Weather Non-Storm Water Action Levels Calculations for Discharges to Inland Surface Waters

On the basis of the foregoing discussion, the NALs were calculated with the following considerations and assumptions:

No dilution credit is considered for the discharge. Therefore, the discharge must comply with the Water Quality Objective at the point of discharge.

For NALs based on CTR, implementation was done using the procedure list as outlined in the State Implementation Plan (SIP) (see below example).

NAL CTR/SIP Calculation – Chromium VI Example:

Criteria for Priority Toxic Pollutants in the State of California is described in the CTR table listed in 40 CFR 131.38.

¹⁶³ Riverside County Copermittees 2007-08 and 2008-09 Annual Progress Reports.

A		B Freshwater		C Saltwater		D Human Health (10 ⁻⁶ risk for carcinogens) For consumption of:	
# Compound	CAS Number	Criterion Maximum Conc. ^d B1	Criterion Continuous Conc. ^d B2	Criterion Maximum Conc. ^d C1	Criterion Continuous Conc. ^d C2	Water & Organisms (μ g/L) D1	Organisms Only (μ g/L) D2
1. Antimony	7440360					14 a,s	4300 a,t
2. Arsenic ^b	7440382	340 i,m,w	150 i,m,w	69 i,m	36 i,m		
3. Beryllium	7440417					n	n
4. Cadmium ^b	7440439	4.3 e,i,m,w,x	2.2 e,i,m,w	42 i,m	9.3 i,m	n	n
5a. Chromium (III)	16065831	550 e,i,m,o	180 e,i,m,o			n	n
5b. Chromium (VI) ^h	18540299	16 i,m,w	11 i,m,w	1100 i,m	50 i,m	n	n
6. Copper ^b	7440508	13 e,i,m,w,x	9.0 e,i,m,w	4.8 i,m	3.1 i,m	1300	
7. Lead ^h	7439921	65 e,i,m	2.5 e,i,m	210 i,m	8.1 i,m	n	n
8. Mercury ^b	7439976	[Reserved]	[Reserved]	[Reserved]	[Reserved]	0.050 a	0.051 a
9. Nickel ^b	7440020	470 e,i,m,w	52 e,i,m,w	74 i,m	8.2 i,m	610 a	4600 a
10. Selenium ^b	7782492	[Reserved] p	5.0 q	290 i,m	71 i,m	n	n
11. Silver ^b	7440224	3.4 e,i,m		1.9 i,m			
12. Thallium	7440280					1.7 a,s	6.3 a,t
13. Zinc ^b	7440666	120 e,i,m,w,x	120 e,i,m,w	90 i,m	81 i,m		

Freshwater criterion maximum concentration (CMC) = 16 ug/L

Freshwater criterion continuous concentration (CCC) = 11 ug/L

These criteria are expressed in terms of the dissolved fraction of the metal in the water column. [See footnote "m" to Table in paragraph (b)(1) of 40 CFR 131.38].

40 CFR 122.45(c) requires that this Order include effluent limitations as total recoverable concentration; therefore it is appropriate to include action levels also as total recoverable concentration.

The SIP requires that if it is necessary to express a dissolved metal value as a total recoverable and a site-specific translator has not yet been developed, the San Diego Water Board shall use the applicable conversion factor from 40 CFR 131.38.

The term "Conversion Factor" (CF) represents the recommended conversion factor for converting a metal criterion expressed as the total recoverable fraction in the water column to a criterion expressed as the dissolved fraction in the water column.

Total recoverable concentration * CF = Dissolved concentration criterion

or

Total recoverable concentration = Dissolved concentration criterion/ CF

§ 131.38

40 CFR Ch. I (7-1-08 Edition)

Metal	Conversion factor (CF) for freshwater acute criteria	CF for freshwater chronic criteria	CF for saltwater acute criteria	CF ^a for saltwater chronic criteria
Antimony	(^d)	(^d)	(^d)	(^d)
Arsenic	1.000	1.000	1.000	1.000
Beryllium	(^d)	(^d)	(^d)	(^d)
Cadmium	^b 0.944	^b 0.909	0.994	0.994
Chromium (III)	0.316	0.860	(^d)	(^d)
Chromium (VI)	0.982	0.962	0.993	0.993
Copper	0.960	0.960	0.83	0.83
Lead	^b 0.791	^b 0.791	0.951	0.951
Mercury				
Nickel	0.998	0.997	0.990	0.990
Selenium		(^e)	0.998	0.998

CF for Chromium VI = .982 and .962, so the total recoverable concentrations for chromium VI:

16 ug/L dissolved (CMC)/ 0.982 (CF) = 16.3 ug/L total recoverable CMC

11 ug/L dissolved (CCC) / 0.962 (CF) = 11.4 ug/L total recoverable CCC

Effluent Variability multiplier and Coefficient of Variation (CV)

For each concentration based on an aquatic life criterion, the long-term average (LTA) is calculated by multiplying the concentration with a factor that adjusts for effluent variability. The multiplier can be found in Table 1 of the SIP. Since this Order does not have existing data to properly conduct a variability analysis in accordance with the SIP, the CV has been set equal to 0.6 per SIP requirements. The current effluent data is limited due to the small number of representative outfalls sampled, the lack of outfalls discharging to representative water bodies within the Region, and the targeted nature of the sampling design.

Based upon a CV of 0.6, Table 1 of the SIP requires an effluent variability as follows:

Acute Multiplier = 0.321

Chronic Multiplier = 0.527

The long-term average (LTA) is calculated by multiplying the total recoverable concentrations for zinc with the acute and chronic multipliers:

LTA Acute = 16.3 ug/L * 0.321 = 5.23

LTA Chronic = 86 11.4 ug/L * 0.527 = 6.01

The maximum daily action level (MDAL) and average monthly action level (AMAL) will be based on the most limiting of the acute and chronic LTA, in the case for chromium VI the most limiting LTA is the acute of 5.23 ug/L

NALs are calculated by multiplying the most limiting LTA with a multiplier that adjusts for the averaging periods and exceedance frequencies of the criteria and the effluent limitations. The multiplier can be found in Table 2 of the SIP. Since this Order has insufficient data, the CV has been set to 0.6 and since sampling frequency is four times a month or less, n has been set equal to 4 per the SIP.

Table 2. Long-Term Average (LTA) Multipliers for Calculating Effluent Limitations

Coefficient of Variation	MDEL Multiplier	AMEL Multiplier			MDEL/AMEL Multiplier		
	99 th Percentile Occurrence Probability	95 th Percentile Occurrence Probability			MDEL = 99 th Percentile Occurrence Probability AMEL = 95 th Percentile Occurrence Probability		
(CV)		n = 4	n = 8	n = 30	n = 4	n = 8	n = 30
0.1	1.25	1.08	1.06	1.03	1.16	1.18	1.22
0.2	1.55	1.17	1.12	1.06	1.33	1.39	1.46
0.3	1.90	1.26	1.18	1.09	1.50	1.60	1.74
0.4	2.27	1.36	1.25	1.12	1.67	1.82	2.02
0.5	2.68	1.45	1.31	1.16	1.84	2.04	2.32
0.6	3.11	1.55	1.38	1.19	2.01	2.25	2.62

Therefore, from Table 2 of the SIP, the LTA multipliers will be as follows:

MDAL Multiplier = 3.11

AMAL Multiplier = 1.55

The MDAL and AMAL limits are calculated by multiplying the LTA with an LTA multiplier for each limit:

MDAL = 5.23 ug/L * 3.11 = 16 ug/L

AMAL = 5.23 ug/L * 1.55 = 8.1 ug/L

Whole Effluent Toxicity (WET) Testing Requirements

A WET limit is required if a discharge causes, has a reasonable potential to cause, or contributes to an exceedance of applicable water quality standards, including numeric and narrative. Since these types of discharges are prohibited under this Order, WET limits are not applicable.

Discussion of AMALs, MDALs and Instantaneous Maximums

Where practical, action levels in this Order have been expressed as both AMALs and MDALs. Certain action levels may not practicably be expressed as AMALs and MDALs due to specific Basin Plan water quality objective language, sampling requirements and/or a lack of Criteria. Based upon the likely sampling frequency of the Copermittees, the frequency of sampling will occur such that grab samples are taken once per sampling day. This single sample would then be subject to MDALs and Instantaneous Maximum levels. In this case, the more conservative action level would apply. In addition, it is expected that some effluent monitoring will occur less than or equal to once per month. In this scenario, the MDAL, AMAL and Instantaneous Maximum levels would need to be met based upon one sample (unless sampling did

not occur). For some Basin Plan water quality objectives, AMALs have been excluded and only MDALs/Instantaneous Maximums set to prevent redundancy in action levels.

Compliance with Action Levels (Priority Pollutants)

Compliance with action levels shall be determined as follows:

Dischargers shall be deemed out of compliance with this Order if the Copermittee failed to take the prescribed action in response to a concentration of the priority pollutant in the monitoring sample that is greater than the action level and greater than or equal to the reported Minimum Level (exceedance of an action level). Regardless of the Copermittee's actions in response to an exceedance, they are still subject to the prohibitions found in sections A and B of the Order.

When determining to take an action in response to the AMALs and more than one sample result is available in a month, the discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "did not quantify" (DNQ) or "not detected" (ND). In those cases, the discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- (1) The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- (2) The median value of the data set shall be determined. If the data set has an odd number of data points then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of those points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

D. Storm Water Action Levels

The following legal authority applies to section D:

Broad Legal Authority: CWA §402, §402(p)(3)(B)(iii), CWC §13377, 40 CFR §122.44, 40 CFR §122.26(d)(1)(iv), 40 CFR §122.26(d)(2)(i)(E and F), and 40 CFR §122.26(d)(2)(iii and iv).

Specific Legal Authority:

CWA section 402(p)(3)(B)(iii) provides that MS4 permits “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(E and F) provides that the Copermittee “Require compliance with conditions in ordinances, permits, contracts or orders;” and “Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions ...”

Copermittees must conduct a comprehensive monitoring program as required under Federal NPDES regulations 40 CFR 122.26(d)(2)(iii), including the collection of quantitative MS4 storm water effluent data from outfalls.

Federal NPDES regulations 40 CFR 122.44 (d) provide that NPDES permits include any requirements necessary to “Achieve water quality standards,... including State narrative criteria for water quality.”

Section D has been added to establish storm water action levels (see also Finding D.1.h and Discussion).

Introduction

The Copermittees’ ROWD supports the establishment of action levels which can be used in the effectiveness assessment program to ensure a minimum level of program implementation and identify shortcomings in their MS4 programs.¹⁶⁴ Storm Water Action Level (SAL) concentrations, standards and constituents have been developed and incorporated into the monitoring requirements for wet weather.

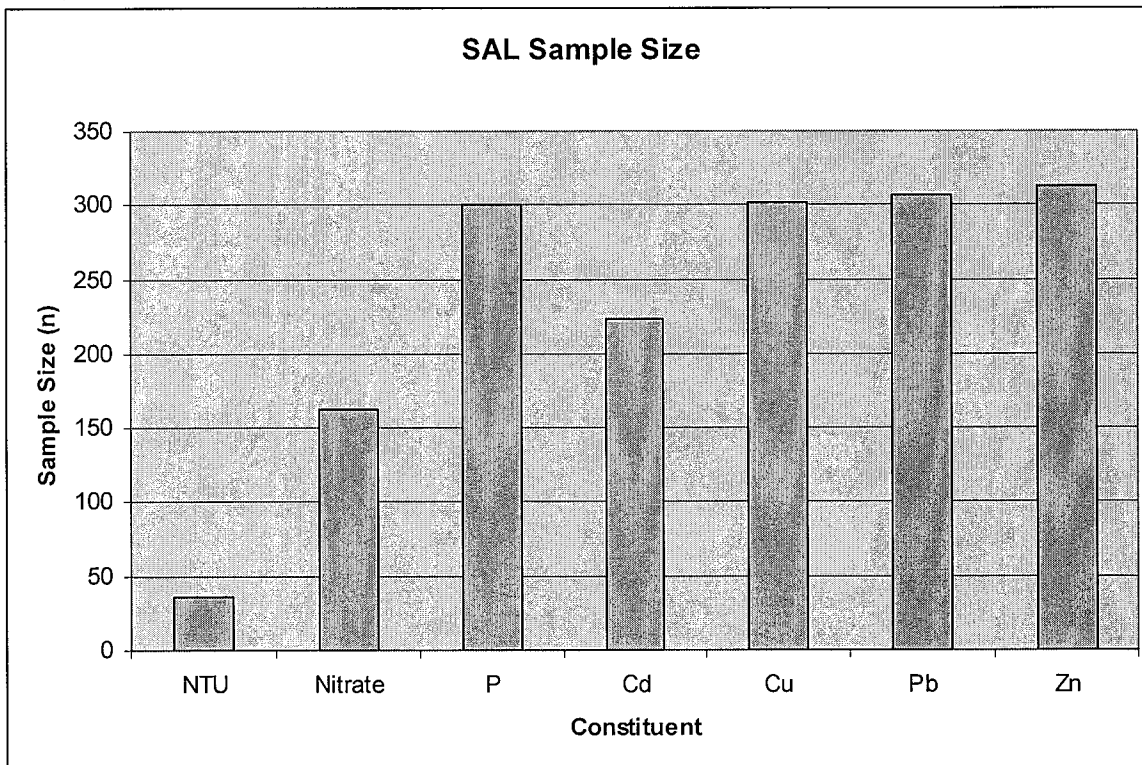
¹⁶⁴ Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

SAL Concentration/Standards

SAL pollutant levels were developed from a regional subset of nationwide Phase I MS4 data by using USEPA Climate Zone 6 (arid west) data.¹⁶⁵ Utilizing data from USEPA Climate Zone 6 resulted in SALs which closely reflect the environmental conditions experienced in Riverside County. The localized subset of data includes sampling events from multiple Southern California locations including Orange, San Diego, Riverside, Los Angeles, and San Bernardino Counties. The dataset includes samples taken from highly built-out impervious areas and from storm events representative of Southern California conditions.

Additionally, utilization of regional data is appropriate due to the addition of data into the nationwide Phase I MS4 monitoring dataset in February 2008. This additional data increased the number of USEPA Climate Zone 6 samples to more than 400, and included additional monitoring events within Southern California (see figure below).

Sample Sizes Used to Calculate Storm Water Action Levels



In addition, the SALs reflect the water quality standards in the Basin Plan for the San Diego Region, the California Toxic Rule and USEPA Water Quality Criteria. Since it is the goal of the SALs, through the iterative and MEP process, to have outfall storm water discharges meet all applicable water quality objectives, the list of constituents to

¹⁶⁵ Data used to develop SAL are provided in Attachment F to Order No. R9-2010-0016, and obtained from <http://rpitt.eng.ua.edu/Research/ms4/mainms4.shtml>

be tested and protocol for testing has been developed to provide a reference point to evaluate the iterative MEP process.

SALs were developed based upon receiving water monitoring results and CWA section 303(d) impaired waters listings. Nitrogen, Copper and Phosphorous are all pollutants for which receiving waters are 303(d) listed as impaired and for which sufficient data was available to develop SALs. Additionally, receiving water monitoring, including from storm events monitored by the Copermittees, has demonstrated excursions and/or potential excursions, often absent receiving water hardness, above water quality criteria for turbidity (NTU), Cadmium, Lead, and Zinc. SALs were not developed for some pollutants for which receiving waters are 303(d) listed as impaired due to a lack of representative data available. These pollutants are required to be monitored but are not subject to a SAL under the Order.

Monitoring

The SALs require the measurement of hardness and to provide more specificity in the assessment of samples with SALs for total metal concentrations. While USEPA Climate Region 6 data includes a large sample size for concentrations of total metals, the impact the concentration will have on receiving waters will vary with receiving water hardness. Since it is the goal of the SALs, through the iterative and MEP process, to have MS4 storm water discharges meet all applicable water quality objectives, the hardness of the receiving water should be used when assessing the total metal concentration of a sample. Thus, when an exceedance of a SAL concentration is detected for a metal, the Copermittee must determine if that exceedance is above the existing applicable water quality limitation based upon the hardness of the receiving water. The water quality limitations Copermittees must use to assess total metal SAL exceedances are the California Toxic Rule (CTR) and USEPA National Recommended Water Quality Criteria for Freshwater Aquatic Life 1 hour maximum concentrations. The 1 hour maximum concentration is to be used for comparison since it is expected to most replicate the impacts to waters of the State from the first flush following a precipitation event.

E. Legal Authority

The following legal authority applies to section E:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that the Copermittees shall develop and implement legal authority to “Control through ordinance, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that the Copermittees shall develop and implement legal authority to “Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system.”

Illicit discharge is defined under Federal NPDES regulation 40 CFR 122.26(b)(2) as “any discharge to a municipal separate storm sewer system that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(A - D) require municipalities to implement controls to reduce pollutants in storm water runoff from commercial, residential, industrial, and construction land uses or activities.

Federal NPDES regulation 40 CFR 122.26(d)(1)(ii) requires from the Copermittee “A description of existing legal authority to control discharges to the municipal separate storm sewer system.”

Section E.1.b requires the Copermittees to prohibit all identified illicit discharges not otherwise allowed pursuant to section B.2 including but not limited to:

- (1) Sewage;
- (2) Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
- (3) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
- (4) Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;

- (5) Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
- (6) Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
- (7) Discharges of pool or fountain water containing chlorine, biocides, toxic amounts of salt, or other chemicals; discharges of pool or fountain filter backwash water;
- (8) Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
- (9) Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).

Section E.1.j has been added to the Order to ensure that BMPs implemented by third parties are effective. Since the Copermittees cannot passively receive and discharge pollutants from third parties, the Copermittees must ensure discharges of storm water pollutants to the MS4 are reduced to the MEP. In order to achieve this, the Copermittees must be able to ensure that effective BMPs are being implemented by requiring the third parties to document BMP effectiveness. Regarding the Copermittees' ability to require documentation and reporting from third parties, USEPA states "municipalities should provide documentation of their authority to enter, sample, inspect, review, and copy records, etc., as well as demonstrate their authority to require regular reports."¹⁶⁶

¹⁶⁶ USEPA, 1992. Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. EPA 833-B-92-002.

F. Jurisdictional Runoff Management Program

F.1. Development Planning Component

The following legal authority applies to section F.1:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWA section 402(a), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F), 40 CFR 131.12, and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(2) provides that Copermittees develop and implement a management program which is to include “A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plans shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed.”

Federal NPDES regulation 40 CFR 122.44(d)(1) requires municipal storm water permits to include any requirements necessary to “[a]chieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.”

Sections F.1.a and F.1.b (General Plan and Environmental Review Process) require the Copermittees to update and revise their General Plan (or equivalent plan) and environmental review processes to ensure water quality and watershed protection principles are included. The Copermittees are required to detail any changes to the General Plan or environmental review process in their Jurisdictional Runoff Management Program Annual Reports. The General Plan must be updated to include water quality and watershed protection principles for all new development and redevelopment projects.

The change made to these sections requires updating the General Plan and Environmental Review Process on an as-needed basis. Each Copermittee has either updated, is in the process of updating, or has assessed its General Plan to ensure the General Plans include the required principles and are in compliance with Order No. R9-2004-001.

Section F.1.c (Approval Process Criteria and Requirements) requires that all development projects (regardless of size) implement BMPs to reduce storm water pollutant discharges to the MEP. Source control and site design BMP requirements were not clearly described in this section of Order No. R9-2004-001. Additional detail has been added to this section to better describe the source control and site design BMPs needed for implementation. This additional detail is consistent with the

requirements of the SSMP, also known in Riverside County as the Water Quality Management Plan (WQMP). However, only source control and site design BMPs that apply to all types of development projects are required (e.g., properly designed trash storage areas).

The requirements are consistent with Order No. R9-2004-001. However, some elements are not contained in the current DAMP¹⁶⁷ (e.g., buffer zones). One exception is that Order No. R9-2004-001's requirement that applicants must provide evidence of coverage under the General Industrial Permit has been removed, since industrial tenants for a development project are usually not known during the planning stage.

The section has also been modified to reflect the prohibition of over-irrigation runoff to the MS4, as well as LID requirements. Additionally, this section requires the use of native and/or low water use plants for landscaping, and rainwater harvesting, where feasible.

Sections F.1.d and F.1.d.(1) (Standard Storm Water Mitigation Plans and Definition of Priority Development Project) require the Copermittees to review and update their SSMPs (also known in Riverside County as Water Quality Management Plans – WQMPs) for compliance with the Order. The sections also require all Priority Development Projects falling under certain categories to meet SSMP requirements. The update is necessary to ensure that the Copermittees' SSMPs are consistent with the changes that have been made to the Order's SSMP requirements. The requirement for the development/adoption of a Model SSMP has been removed since a model was completed and adopted in 2005.

The SSMP section of the Order has been reformatted for clarity. There are also some significant changes. Changes have been made in response to USEPA program evaluations, recent BMP development and effectiveness studies, recent reports on the magnitude of problems caused by hydromodification, and reviews of annual reports and the ROWD submitted by the Copermittees.

In addition, the Order requires that a one-acre threshold be phased in over two years for the priority development category. This one-acre threshold was selected to be consistent with the State Water Board's Phase II NPDES requirements for small municipalities (Order No. 2003-0005-DWQ). The one-acre threshold is also included to be consistent with the State Water Board's Construction General Permit (Order No. 2009-0009-WQO), to ensure all Development Projects subject to the post-construction BMP requirements of the Construction General Permit will implement SSMP post-construction BMP requirements. The one-acre determination applies to the amount of ground area disturbed, not the total size of the parcel or project. Each Copermittee may also lower this threshold if desired.

¹⁶⁷ Riverside County Copermittees. *Drainage Area Management Plan (DAMP)2006*. July 21, 2006.

Section F.1.d.(2) (Priority Development Project Categories) includes several changes to improve, simplify, and clarify the Priority Development Project categories.

One of the most significant changes is that where a new Development Project feature, such as a parking lot, falls into a Priority Development Project Category, the entire project footprint is subject to SSMP requirements. This criterion was not included in Order No. R9-2004-001. It is included, however, in the Model San Diego SSMP that was approved by the San Diego Water Board in 2002. It is included in this Order because existing development inspections by Riverside County municipalities show that facilities included in the Priority Development Project Categories routinely pose threats to water quality. This permit requirement will improve water quality and program efficiency by preventing future problems associated with partly treated storm water runoff from redevelopment sites. This approach to improving storm water runoff from existing developments is practicable because municipalities have a better ability to regulate new developments than existing developments.

Another significant change is a new category for any new development projects that create 10,000 square feet or more of impervious surfaces (collectively over the entire project site). This category applies to commercial, industrial, residential, mixed use, and public projects on private or public land.

Section F.1.d.(2)(g) was modified to allow the Copermittees to develop a standard roadway design and post-construction BMP guidance document that could be used by the Copermittees in lieu of a project specific SSMP for each public works road construction project. The guidance document must comply with the SSMP requirements, including the LID and hydromodification BMP requirements. The roadway design and post-construction BMP guidance must be included in the updated SSMP, and may be utilized after the San Diego Water Board has determined that the updated SSMP is acceptable.

Development of new industrial sites was not included as a category in the Priority Development Projects in Order No. R9-2004-001 because industrial NPDES requirements already establish storm water criteria. Industrial sites are now included in the new development category of the Order to be consistent with Phase II rules and to close loopholes.

Section F.1.d.(3) (Pollutants of Concern) requires Copermittees to update their procedures for identifying pollutants of concern for each Priority Development Project. This is important to do periodically because of changing water quality conditions and designations of impairments or areas of concern. Furthermore Copermittees continually learn more about pollutant-generating activities as they conduct inspections and investigations, and that information must be incorporated into the SSMP process.

Section F.1.d.(4) (Low Impact Development BMP Requirements) requires the Copermittees to require each Priority Development Project to implement low impact development (LID) BMPs to reduce the amount of polluted storm water runoff from

those sites. The Copermittees' ROWD proposes to revise the Riverside County Storm Water Quality BMP Design Handbook to incorporate LID design concepts.¹⁶⁸ The primary approach in LID site design BMPs is to limit the permanent loss of existing infiltration capacity because loss of infiltration is a major contributor to wet weather pollution discharges. General means to accomplish that goal include retaining natural infiltration areas of a site and limiting the amount of impervious surfaces. The Order does not require a specific or relative amount of pervious surfaces be added to a project. The Order seeks to retain on-site capture of the 85th percentile storm.

The Copermittees must require LID BMPs to be implemented for each Priority Development Project, unless found to be technically infeasible. LID BMPs must be formally considered during the plan review process for Priority Development Projects. The LID review process for each Priority Development Project is expected to include an assessment of LID BMP techniques to infiltrate, filter, store, evaporate, and/or retain runoff close to the source of the runoff. The review process is also expected to include an assessment of the potential collection of storm water for on site and off site reuse opportunities. In cases where LID BMPs are found to be technically infeasible, the Copermittees may grant a waiver to the Priority Development Project for all or a portion of the LID BMP requirements.

The Order directs the Copermittees to require new development projects to employ certain classes of LID site design BMPs. The required LID site design BMPs take advantage of features that are incorporated into the Priority Development Project, such as landscaping or walkways. It also requires that projects seek to maintain natural water drainage features rather than instinctively convey water in buried pipes and engineered ditches that eliminate natural water quality treatment functions. These types of site design BMPs are both effective and achievable.

LID BMPs must be sized and designed to ensure onsite retention without runoff, of the volume of runoff produced from a 24-hour 85th percentile storm event ("design capture volume"). This is consistent with other municipal storm water NPDES permits recently adopted by the Los Angeles and Santa Ana Water Boards, as well as the permit recently adopted by the San Diego Water Board for Orange County. The requirement for a numerical BMP design standard is well established for treatment control BMPs and is required in permits throughout the nation such as in Pennsylvania, West Virginia, Georgia, and Washington D.C. Since the 85th percentile storm event has previously been used as the numeric design standard for treatment control BMPs; the same size storm event can be applied as the numeric design standard for LID BMPs. The average 24-hour, 85th percentile rainfall for the Riverside County portion of the San Diego Region was calculated to be approximately 0.6 inches of rain.¹⁶⁹

The retention and restoration of natural drainage features, such as ephemeral streams, wetlands, and depressions, can be particularly important because small tributaries are essential to the maintenance of the chemical, biological, and physical

¹⁶⁸ Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

¹⁶⁹ San Diego Water Board, 2004. Fact Sheet/Technical report for Order No. R9-2004-001, dated July 14, 2004.

integrity of larger water bodies.¹⁷⁰ The loss and modification of such natural water resources to accommodate post-development storm water management leads to direct and indirect adverse effects on water quality that are felt both on the project site and off the site within the watershed.^{171,172,173} Effects to aquatic beneficial uses from altered drainage features can occur downstream and upstream. The length of upstream or downstream effect of channel modifications is dependant on the specific structure type and channel slope.¹⁷⁴ For instance, road culverts can act as partial barriers to upstream distribution of native aquatic macroinvertebrates in urban streams, while bridges can provide adequate passage.¹⁷⁵ As a result of the adverse effects to water quality and beneficial uses, the State of California nonpoint source pollution program management measures for urban areas includes limiting the destruction of natural drainage features and natural conveyance areas.¹⁷⁶ Additionally, any project proposing to discharge dredge and/or fill material to waters of the United States and/or State is required to obtain a CWA section 401 Water Quality Certification and/or Waste Discharge Requirements from the San Diego Water Board or State Water Board.

LID site design BMP options do not need to be costly.¹⁷⁷ Some design options, such as concave vegetated surfaces or routing rooftop or walkway runoff to landscaped areas, are cost neutral.¹⁷⁸ Other LID site design BMPs, such as minimizing parking stall widths or use of efficient irrigation devices, are oftentimes already required. In addition, use of LID site design BMPs reduces storm water runoff quantity, allowing for treatment control BMPs and other storm water infrastructure on site to be smaller, therefore savings costs for both developers and municipalities.^{179,180}

Because of the potential economic and environmental benefits of using LID site design, the U.S. Department of Housing and Urban Development, Office of Policy

¹⁷⁰ Aquatic scientists comment letter (April 10, 2003) on the Advanced Notice of Proposed Rulemaking (ANPRM) on the Clean Water Act Regulatory Definition of "Waters of the United States." (Docket ID No. OW-2002-0050). This letter is a synthesis of scientific information regarding ephemeral, intermittent, and headwater streams. It was written to USEPA by 85 leading aquatic scientists.

¹⁷¹ Wright, Tiffany, et al. 2006. *Direct and Indirect Impacts of Urbanization on Wetland Quality*. Prepared by the Center for Watershed Protection for the USEPA Office of Wetlands, Oceans, and Watersheds. 81p. Available on-line at <http://www.cwp.org>

¹⁷² Konrad, Christopher P. and Derek K. Booth, 2005. *Hydrologic Changes in Urban Streams and Their Ecological Significance*. American Fisheries Society Symposium. Vol. 45 pp.157-177.

¹⁷³ Coleman, Derrick, et al. 2005. *Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams*. Technical Report No. 450 of the Southern California Coastal Water Research Project.

¹⁷⁴ Fischenich, J.C. 2001. "Impacts of stabilization measures," EMRRP Technical Notes Collection (ERDC TNEMRRP- SR-32), U.S. Army Engineer Research and Development Center, Vicksburg, MS. <http://www.wes.army.mil/el/emrrp>

¹⁷⁵ Blakely, Tanya J., et al. 2006. *Barriers To The Recovery Of Aquatic Insect Communities In Urban Streams* Freshwater Biology Vol. 51(9), 1634–1645.

¹⁷⁶ California Nonpoint Source Encyclopedia, Management Measure 3.1.b. Runoff from Developing Areas, Site Development and Management Measure 3.3.a. Runoff from Existing Development, Existing Development.

¹⁷⁷ USEPA, 2000. Low-Impact Development: A literature review. EPA-841-B-00-005. 35p.

¹⁷⁸ Bay Area Stormwater Management Agencies Association., 1999. Start at the Source. Forbes Custom Publishing. Available on-line at: http://www.scvurppp-w2k.com/basmaa_satsm.htm. pp. 149.

¹⁷⁹ National Association of Home Builders Research Center. *Builders Guide to Low Impact Development*. Available on-line at <http://www.toolbase.org>

¹⁸⁰ National Association of Home Builders Research Center. *Municipal Guide to Low Impact Development*. Available on-line at <http://www.toolbase.org>

Development and Research, developed “*The Practice of Low Impact Development (LID)*” to assist the housing industry during the land development process.¹⁸¹ This document focuses specifically on technologies that affect both the cost impacts and environmental issues associated with land development. Much of the report focuses on storm water management because LID storm water management systems can save capital costs for developers and maintenance costs for municipalities.¹⁸² The executive summary of the HUD report notes:

This approach to land development, called Low Impact Development (LID), uses various land planning and design practices and technologies to simultaneously conserve and protect natural resource systems and reduce infrastructure costs. LID still allows land to be developed, but in a cost-effective manner that helps mitigate potential environmental impacts. LID is best suited for new, suburban development.

Developers can use site and structure designs that reduce building footprints, decrease the amount of paved infrastructure, and provide for dispersed drainage and infiltration of runoff from impervious surfaces to reduce the effective impervious surface.¹⁸³ The concept of effective impervious surface is important, because when runoff from these surfaces is directed to pervious areas rather to an impervious drainage system (i.e. curbs, gutters, street surfaces, storm drain pipes), it can infiltrate, evaporate, or be taken up by vegetation, thereby reducing the total volume of storm water runoff leaving a site.

In addition to all the benefits discussed above, LID BMPs have several other advantages over conventional treatment control BMPs. As previously discussed, implementing LID BMPs can save on maintenance costs for municipalities and property owners. LID BMPs are typically easier to operate and maintain compared to conventional mechanical treatment control BMP technologies. Because LID BMPs are easier to operate and maintain, they are also more reliable compared to conventional mechanical treatment control BMP technologies, thus more sustainable over the long term.

Through its process of conditioning development projects under the CWA section 401 Water Quality Certification program, the San Diego Water Board finds that the level of LID site design BMP implementation in the Order is feasible for all projects. The LID BMP requirements will help ensure that LID site design BMPs are implemented for new development projects. LID site design BMPs are a critical component of storm water runoff management at new development projects, since the LID BMPs provide multiple benefits including preservation of hydrologic conditions, reduction of pollutant discharges, cost effectiveness, and green space.

¹⁸¹ U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2003. *The Practice of Low Impact Development.* Prepared by: NAHB Research Center, Inc. Upper Marlboro, Maryland. Contract No. H-21314CA.

¹⁸² Ibid. Executive Summary, p.x.

¹⁸³ Bay Area Stormwater Management Agencies Association. 2003. *Using Site Design Techniques to Meet Development Standards for Stormwater Quality.* Available on-line at: <http://www.basmaa.org/>

The Order provides the Copermitees with flexibility in implementing the LID site design BMP requirements by providing a LID BMP waiver program. The Riverside County Copermitees plan on allowing the implementation of the LID BMPs contained in the Riverside County LID Design Manual if retention LID BMPs are found to be technically infeasible to retain all of the design capture volume. Other LID BMP design and guidance manuals that are acceptable to the Copermitees and/or San Diego Water Board may also be considered.

If retention LID BMPs and/or other LID BMPs are technically infeasible to retain and/or treat all or part of the design capture volume for a Priority Development Project, a waiver may be granted for the remaining portion of the design capture volume. The waiver would allow the remaining portion of the design capture volume to be treated with conventional treatment control BMPs and some form of mitigation.

The use of conventional treatment control BMPs for Priority Development Projects is expected to be allowed by the Copermitees on a very limited basis, and only when a Copermitee finds that LID BMPs are technically infeasible for retaining and/or treating the full design capture volume. In such cases, the Copermitee may issue a waiver for the Priority Development Project from all or a portion of the LID BMP requirements. The LID BMP waiver program that must be developed and implemented by the Copermitee(s) is discussed below under section F.1.d.(7). The criteria that the Copermitee(s) may use to make a finding of technical infeasibility for implementing LID BMPs are also discussed under section F.1.d.(7).

Section F.1.d.(5) (Source Control BMP Requirements) requires that Priority Development Projects implement a minimum set of source control BMPs to protect the water quality of receiving waters from discharges of runoff from these projects. This section has been added to provide more detail and clarify the Order's requirements for source control BMPs. The minimum source control BMPs listed as required by this section must be implemented by each Priority Development Project. In cases where one or more of the minimum source control BMPs are not warranted as part of the site design for the Priority Development Project (e.g., no outdoor material storage and/or work areas), those source control BMPs are not expected to be implemented.

Section F.1.d.(6) (Treatment Control BMP Requirements) includes several design requirements for any treatment control BMPs that are allowed to be implemented (i.e. granted a waiver for all or part of the LID BMP requirements) on Priority Development Projects. These requirements are generally consistent with Order No. R9-2004-001, with two exceptions. First, the Order limits the selections of methods used to determine the appropriate volume of storm water runoff to be treated. The modification ensures that priority development project proponents utilize the most accurate information to determine the volume or flow of runoff which must be treated.

Second, the Order requires that treatment control BMPs selected for implementation at Priority Development Projects have a removal efficiency rating that is ranked with high

or medium pollutant removal frequency for the project's most significant pollutants of concern. The requirement allows exceptions for those projects that, with a feasibility analysis, can justify the use of a treatment control BMP with a low removal efficiency for a Priority Development Project. This requirement is needed because to date, the Copermittees have generally approved low removal efficiency treatment control BMPs without justification or evidence that use of higher efficiency treatment BMPs was considered and found to be infeasible. Specifically, it has been found during audits of the Copermittees' SSMP programs that many SSMP reports do not adequately describe the selection of treatment control BMPs.¹⁸⁴ Moreover, USEPA's contractor Tetra Tech, Inc. recommends that "project proponents should begin with the treatment control that is most effective at removing the pollutants of concern [...] and provide justification if that treatment control BMP is not selected."¹⁸⁵

In addition, treatment control BMPs must be designed and implemented with measures to avoid the creation of nuisance or pollution associated with vectors, such as mosquitoes, rodents, and flies. Related guidelines are identified in guidance from CASQA.¹⁸⁶ Additional considerations are outlined in publications from the California Department of Health Services and University of California Division of Agriculture and Natural Resources.¹⁸⁷

Section F.1.d.(7) (Low-Impact Development BMP Waiver Program) requires the Copermittees to develop, collectively or individually, a LID BMP waiver program. For some Priority Development Project sites, it may be technically infeasible to implement the required LID BMPs to retain and/or treat the design capture volume due to the site constraints. For this reason, the San Diego Water Board has added to the Order a requirement for the Copermittees to develop such a program. The LID BMP waiver program would provide the opportunity for development projects to avoid partial or full LID BMP implementation in exchange for implementation of conventional treatment control BMPs and mitigation. The program would maintain equal water quality benefits as properly implemented LID BMPs when partial LID BMPs are coupled with some form of mitigation.

LID BMPs are not limited to infiltration BMPs, and may also include storage, evaporation, evapotranspiration, filtration, and/or on site reuse BMPs. Thus, the San Diego Water Board expects that every site will be able to implement some form of LID BMPs to some extent. The LID BMP waiver program is expected to be used by the Copermittees on a limited basis, and only when a Copermittee finds that LID BMPs are technically infeasible for retaining and/or treating the full design capture volume. The Order provides several conditions under which a Copermittee may find that the

¹⁸⁴ PG Environmental, 2008. Riverside County Flood Control and Water Conservation District and County of Riverside MS4 Inspection Report.

¹⁸⁵ Tetra Tech, Inc., 2005. Program Evaluation Report –San Diego Standard Urban Storm Water Mitigation Plan (SUSMP) Evaluation. P. 5.

¹⁸⁶ For example, see the California Stormwater BMP Handbook guidelines for Extended Detention Basins (TC-22) at <http://www.cabmphandbooks.org>.

¹⁸⁷ Marco Metzger. "Managing Mosquitoes in Stormwater Treatment Devices." University of California Division of Agriculture and Natural Resources Publication No. 8125. Available at <http://anrcatalog.ucdavis.edu>.

implementation of LID BMPs to retain and/or treat the design capture volume is technically infeasible [see section F.1.d.(7)(b)(i)-(iii)]. The Copermittees are not limited to the conditions listed in the Order, and may identify other conditions in the SSMP that would allow a finding of technical infeasibility.

Making a finding of technical infeasibility for the implementation of the LID BMP requirements on any Priority Development Project is at the discretion of each Copermittee through their SSMP plan review process. For any project proponent that would like to receive a waiver for all or part of the LID BMP requirements, the Copermittees may require and/or use any information to make a finding of technical infeasibility.

A separate technical report developed by the project proponent or the Copermittee to support a finding of technical infeasibility may not always be necessary to meet the requirements of this Order. In most cases, it is expected that the information that is provided in the project proponent's SSMP plan review documents (e.g., geotechnical reports, site design plans) will allow the Copermittees to determine whether or not it is technically feasible for LID BMPs to be implemented to retain and/or treat all or part of the design capture volume. The reason(s) for a Copermittee making a finding of technical infeasibility and granting a LID BMP waiver for any project must be provided in the Annual Report.

For Priority Development Projects that are granted a waiver for all or a portion of the LID BMP requirements, mitigation will be required to achieve water quality benefits that will be lost without the LID BMP retention and/or treatment. Any LID BMP waiver program which allows development projects to forgo all or part of the LID BMP implementation requirements must include mitigation provisions which will achieve similar water quality benefits. To ensure that this is the case for the LID BMP waiver program, minimum mitigation provisions for the program have been added to the Order.

Mitigation can be achieved on site or off site. On site mitigation may include additional sizing multipliers for conventional treatment control BMPs implemented on the site to treat a larger range of storm events to achieve the same or greater pollutant load removal expected from retention of the design capture volume. Off site mitigation may include other pollutant treatment projects that are not located on the site that will achieve the same or greater pollutant removal expected from on site LID BMPs for the design capture volume. For example, off site mitigation projects may include green streets projects, existing development retrofit projects, retrofit incentive programs, regional BMPs and/or riparian restoration projects. Off site mitigation projects may also satisfy the Order's retrofitting requirements in section F.3.d.

In addition to these mitigation options, the Order allows the Copermittees to develop and propose additional forms of mitigation (e.g., pollutant credit system, mitigation fund) that could be implemented as part of the LID BMP waiver program by the Copermittee(s). Any additional forms of mitigation proposed by the Copermittees

would be subject to approval by the San Diego Water Board Executive Officer prior to implementation.

Section F.1.d.(8) (LID and Treatment Control BMP Standards) addresses a need for the Copermittees to develop and apply consistent criteria for the design and maintenance of structural treatment BMPs. Correct BMP design is critical to ensure that BMPs are effective and perform as intended. Without design criteria, there is no assurance that this will occur, since there is no standard for design or review. As an example, Ventura County has developed a BMP manual that includes standard design procedure forms for BMPs. Ventura County's *Technical Guidance Manual for Storm Water Quality Control Measures* is available at <http://www.vcstormwater.org/publications.htm>.¹⁸⁸ CASQA also confirms the necessity of design criteria when it includes such criteria in its New Development and Redevelopment BMP Handbook.¹⁸⁹ This issue is noted in the ROWD, and the Copermittees propose to develop standard design checklist/plans/details for selected source control and treatment BMPs.¹⁹⁰

Section F.1.d.(9) (Implementation Process) requires the Copermittee to implement a process to verify compliance with SSMP requirements. The process must identify at what point in the planning process that projects must meet SSMP requirements and what are roles/responsibilities of municipal departments. The intent of this requirement is to provide consistency in the application of the SSMP between the Copermittees. This requirement was included in previous Order No. R9-2004-001.

Section F.1.d.(10) (Post-construction BMP Review) requires the Copermittees to keep their SSMP up to date with BMP effectiveness studies for low-impact design and treatment control BMPs. This requirement will ensure that two important types of information be included in those efforts: Site design BMPs and treatment BMPs that are assessed as part of contracts with the State Water Board and San Diego Water Board. Projects funded with such state grants must include effectiveness assessments using a quality assurance plan. As a result, such studies generally provide reliable sources of local data and should be included in the SSMP.

Sections F.1.e (BMP Construction Verification) requires the Copermittees to verify that the BMPs are being constructed for each Priority Development Project subject to SSMP requirements (SSMP project). SSMP projects that improperly construct or fail to construct site design, source control, and treatment control BMPs can pose a significant threat to water quality. Section F.1.e is included in response to recommendations from USEPA.¹⁹¹

¹⁸⁸ Ibid.

¹⁸⁹ California Stormwater Quality Association, 2003. Stormwater Best Management Practice Handbook – New Development and Redevelopment.

¹⁹⁰ Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

¹⁹¹ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68845. USEPA recommends such practices in the Phase II storm water regulations, promoting "inspections during construction to verify BMPs are built as designed."

In some cases SSMP projects may wish to allow occupancy and/or use of a portion of the site prior to full completion of the project. Section F.1.e is not intended to require a project to be fully (i.e. all phases and areas) completed before the occupancy and/or intended use of a portion of the site is allowed. A Copermittee, however, must verify that the BMPs designed to treat and control pollutants from the completed portion of the project are properly constructed before the occupancy and/or intended use of the completed portion is allowed. The BMPs must be specifically designed to control pollutants from the completed portion of the site that will be occupied and/or used prior to the full completion of the SSMP project.

Section F.1.f (BMP Maintenance Tracking) is included in the Order to ensure the continued effectiveness of the post-construction BMP requirements. BMPs need to be properly constructed and adequately maintained to ensure that they are operating correctly and remain effective in removing pollutants from a project site's runoff prior to discharging to receiving waters.

To facilitate the tracking of BMP maintenance, each Copermittee must develop and maintain a database of Priority Development Projects subject to SSMP requirements (SSMP projects) and the post-construction BMPs implemented for each SSMP project. The inventory is not expected or required to include LID BMPs that are implemented on a lot by lot basis at single family residential houses. The inventory, however, must include the post-construction BMPs for all other development or redevelopment SSMP project sites.

The Order requires BMPs at all high priority SSMP project sites as well as all Copermittee project sites with BMPs to be inspected by the Copermittees annually. Other measures, verification methods, and inspection frequencies may be used for BMPs at lower priority SSMP project sites. SSMP project sites with the highest potential for causing or contributing to a threat to water quality or an existing impairment of water quality are required to be inspected by the Copermittees on an annual basis.

The prioritization of the SSMP project sites requiring inspections by the Copermittees will be developed by the Copermittees and reported in the updated JRMP. The prioritization of SSMP project sites may be revised on an annual basis based on inspection findings, and the Copermittees must report changes in prioritization, and justification for each change, in the Annual Report.

The Order includes several criteria that must be considered by the Copermittees in determining the priority of a SSMP project site's threat to water quality. Receiving waters that are listed as impaired by pollutants and/or with discharges exceeding action levels are water bodies most at risk for impairment of beneficial uses. Thus, at a minimum, high priority SSMP projects must include sites that are known or suspected to generate pollutants in an area that is tributary (i.e. upstream within the same Hydrologic Subarea) to a receiving water body listed as impaired for those pollutants; and/or, a receiving water body where exceedances of action levels for

those pollutants are observed; and/or, a receiving water body where exceedances of NALs for those pollutants are observed and the Copermittee has not been able to identify the source.

Section F.1.h (Hydromodification) expands and clarifies current requirements for control of MS4 discharges to limit hydromodification effects caused by changes in runoff resulting from development and urbanization. The requirements are based on findings and recommendations of the Riverside County Storm Water Program,¹⁹² the Stormwater Monitoring Coalition (SMC),^{193,194} and the Storm Water Panel on Numeric Effluent Limits (Numeric Effluent Panel).¹⁹⁵ Added specificity is needed due to the current lack of a clear standard for controlling hydromodification resulting from development. More specific requirements are also warranted because hydromodification is increasingly recognized as a major factor affecting water quality and beneficial uses.

Hydromodification is the change in a watershed's runoff characteristics resulting from development, together with associated morphological changes to channels receiving the runoff. As the total area of impervious surfaces increases, infiltration of rainfall decreases, causing more water to run off the surface and at a higher velocity than natural conditions. While erosion in channels is a naturally occurring process, increased runoff rates, volumes, and velocities from developed areas can produce erosive flows in channels under rainfall conditions which are unnatural and were not previously problematic. Moreover, runoff from developed areas increases the duration of time that channels are exposed to erosive flows. The increase in the volume of runoff and the length of time that erosive flows occur ultimately intensify the amount and potential of channel erosion, subsequently causing changes in sediment transport characteristics and the hydraulic geometry (width, depth, and slope) of channels.¹⁹⁶

These types of changes have been documented in southern California. It has been reported that researchers studying flood frequencies in Riverside County have found that increases in watershed imperviousness of only 9-22 percent can result in increases in peak flow rates for the two-year storm event of up to 100 percent.¹⁹⁷ Such changes in runoff have significant impacts on channel morphology. It has recently been found that ephemeral/intermittent channels in southern California appear to be

¹⁹² Riverside County Copermittees. 2009. Report of Waste Discharge (San Diego Region).

¹⁹³ Coleman, Derrick, et al. 2005. *Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams*. Technical Report No. 450 of the Southern California Coastal Water Research Project.

¹⁹⁴ Stein, Eric and Susan Zaleski. 2005. *Managing Runoff to Protect Natural Streams: The Latest Developments on Investigation and Management of Hydromodification in California*. Proceedings of a special technical workshop co-sponsored by California Stormwater Quality Association (CASQA), Stormwater Monitoring Coalition (SMC), and University of Southern California Sea Grant (USC Sea Grant). Technical Report No. 475 of the Southern California Coastal Water Research Project.

¹⁹⁵ Storm Water Panel Recommendations to the California State Water Resources Control Board. 2006. *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial, and Construction Activities*.

¹⁹⁶ Santa Clara Valley Urban Runoff Pollution Prevention Program, 2005. *Hydromodification Management Plan*. P. 1-1.

¹⁹⁷ Schueler and Holland, 2000. *Storm Water Strategies for Arid and Semi-Arid Watersheds (Article 66)*. The Practice of Watershed Protection.

more sensitive to changes in imperviousness than channels in other areas. Morphology of small channels in southern California was found to change with only 2-3 percent watershed imperviousness, as opposed to 7-10 percent watershed imperviousness in other parts of the nation.¹⁹⁸

Sediment that would normally be eroded from the developed areas (i.e. naturally eroded if the area remained undeveloped) is typically coarser grained and deposited closer to the source. Coarser grained sediments that are deposited also provide or contribute to habitat that is more hospitable to aquatic flora and fauna.

Developed areas and increased impervious surface change the types and quality of sediment that are discharged in runoff to the channels under rainfall conditions, which can have an adverse impact on downstream habitats. Sediment in runoff from developed areas and impervious surfaces are typically finer grained, which remains suspended for longer periods of time and can affect aquatic flora (e.g., reduce photosynthesis by limiting transmittance of light) and fauna (e.g., interfere with respiration). Several types of pollutants generated on developed areas (e.g., pesticides, nutrients, bacteria, metals, hydrocarbons) also tend to adsorb on to finer grained sediments. In addition, finer grained sediments get deposited further away from the source or point of discharge. These changes in the characteristics and quality of the sediment in the runoff from developed areas also contribute to the hydromodification effects on downstream channels.

Effects of hydromodification are evident in Riverside County and recognized by the Copermittees. Analyses of bioassessment data within the San Diego Region has indicated that physical changes to stream channels caused by hydromodification are likely responsible, in part, for the low bioassessment scores in urbanized settings.¹⁹⁹ This pattern is consistent under Order No. R9-2004-001, although non-reference bioassessment monitoring was limited to two sites located at mass loading stations. These sites consistently exhibited poor or very poor IBI scores and sub-optimal or marginal habitat. In addition to poor habitat, water chemistry and toxicity impacts were documented at mass and tributary loading stations, likely exacerbating the observed low IBI scores.²⁰⁰ It is important to recognize that the physical changes in stream channels are a direct result of MS4 discharges, but that two separate mechanisms are involved in bringing about those changes. First, is a change in the flow regime caused by the increase in impervious surfaces and loss of natural conveyance systems. Discharges to receiving waters from the MS4 outfalls do not mimic the natural discharges from former tributaries to that receiving water, and the change results in erosion. Second, the physical stream habitat in many places has been severely modified in order to efficiently convey those increased storm water discharges to the ocean. Where streams are hardened and/or buried to convey storm water, they

¹⁹⁸ Coleman, et. al., 2005. Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams. P. iv.

¹⁹⁹ See San Diego Water Board Order No. R9-2009-002 Fact Sheet.

²⁰⁰ Riverside County Copermittees Fiscal Year 2008-2009 Santa Margarita Watershed Annual Progress Report.

cannot provide adequate water quality and other necessary conditions to support beneficial uses. Both of these issues are addressed in the Order.

The Copermittees' recognize the need to improve management of hydromodification. The ROWD proposes to revise the SSMP to incorporate additional information from ongoing hydromodification studies conducted by the SMC. The Order allows the Copermittees to adopt criteria consistent with future SMC findings in the development of their Hydromodification Management Plan.

Section F.1.h. requires the Copermittees to submit a draft Hydromodification Management Plan (HMP) on or before June 30, 2013. This will provide the Copermittees over 2 years to develop the draft HMP.

Section F.1.h (1) describes several elements that must be included in the HMP. For example, the HMP must identify a method for assessing susceptibility of channel segments which receive runoff discharges from Priority Development Projects, and include a channel standard to ensure that the stability of the channel is not compromised as a result of discharges from the Priority Development Projects. The HMP must also identify a range of flows where Priority Development Projects could cause hydromodification effects and subsequent stream instability.

Maintaining the pre-development flows and durations from a Priority Development Project will significantly reduce the potential for increased erosion caused by development. Loss of natural sediment that will be removed because of otherwise pervious areas covered by the impervious development and removal of pollutants in runoff from Priority Development Projects, however, can still increase the potential for increased erosion. Runoff that is discharged from a project that lacks sediment becomes "sediment hungry" and can result in increased erosion upstream and downstream from the point of discharge. Thus, the HMP must also identify a method and compensate for the loss of sediment supply that is expected due to development and include a performance and/or design standard that will be able to mitigate for that expected loss of sediment supply.

The HMP must require Priority Development Projects to implement control measures (such as LID or detention basins) to prevent hydromodification and resultant degradation of stream conditions upstream and/or downstream of project sites. To compare post-project flow rates and durations to pre-project flow rates and durations, the HMP must specify that the pre-development (naturally occurring) flow rates and durations shall be used when assessing pre-project conditions, so that the naturally occurring hydrology throughout the watershed is eventually restored.

In cases where a stream has been armored with concrete, rip rap, or other man-made materials, the HMP shall require the assessment of a comparable soft-bottom channel as the channel standard, as opposed to using the characteristics of the hardened channel as the channel standard. This is to ensure that hydromodification management measures are already in place should any portion of the hardened

channel be returned to its natural state, thereby restoring the physical integrity of the creek and its Beneficial Uses. The only exceptions are for projects that discharge storm water runoff into underground storm drains or conveyance channels with bed and banks that have been concrete lined all the way to water storage reservoirs or lakes, where effects from hydromodification are not expected. Other exceptions that are acceptable to the San Diego Water Board may be identified in the final HMP.

The HMP must also include metrics for assessing impacts to downstream watercourses from Priority Development Projects, as well as assessing improvements to these watercourses. The metrics must be able to assess changes to the channels as Priority Development Projects are developed and constructed in the watershed. Monitoring and evaluating changes to the physical conditions of the channels receiving runoff discharges from Priority Development Projects will provide the Copermittees data that can be used to determine whether or not the HMP is effective at reducing the increased erosive forces caused by development and impervious surfaces over time.

In addition to metrics to assess changes to the physical conditions of the channels, the Copermittees must monitor and evaluate the biological conditions (e.g., habitat quality, benthic flora and fauna, IBI scores) of the channels. This is because historic hydromodification impacts, such as concrete lining and channelization, are suspected to have impacted the natural physical habitat of urban streams resulting in low IBI scores. The Copermittee's 2008-2009 monitoring report indicated decreased IBI scores at mass loading stations below urbanized watersheds, in part due to marginal or suboptimal habitat. The Monitoring and Reporting Program in the Order includes new requirements for monitoring of habitat for bioassessment, with the "Full" suite of physical/habitat characterization measurements found in the SWAMP Bioassessment Standard Operating Procedures being required with each bioassessment sample. Additional bioassessment sites are also required at locations higher in the watershed, which is expected to more closely reflect localized impacts. Therefore, the IBI scores required by the Monitoring and Reporting Program will be a useful metric in terms of assessing both impacts to streams from Priority Development Projects and improvements due to implementation of the HMP management measures. The Copermittees may also develop or utilize other metrics and identify other monitoring locations that can be used to assess the effectiveness of the HMP on the physical and biological conditions of the channels.

In addition to the control measures that must be included in the HMP to prevent or minimize hydromodification effects from Priority Development Projects, section F.1.h.(2) requires the HMP to include additional management measures that can be used on Priority Development Projects based on a prioritized consideration of the following elements in this order: 1) site-design control measures, 2) on-site management measures, 3) the use of regional control measures upstream of receiving waters, and lastly, 4) in-stream management and control measures (not to include reinforcement with non-naturally occurring materials). The suite of management measures must also include stream restoration as a viable option to achieve the channel standard and subsequently restore Beneficial Uses. In-stream controls are

expected to be in the form of stream restoration or rehabilitation. The use of stream restoration is expected to be an option that is used in conjunction with other on site management measures and not by itself as the only management measure. Stream restoration or rehabilitation projects that are considered in-stream controls for the purpose of preventing or minimizing hydromodification effects do not include projects that use non-naturally occurring materials (e.g., concrete, rip-rap, or gabions, etc.), but may include projects that use natural materials and/or create stable and sustainable channel configurations.

The San Diego Water Board recognizes that fully achieving post-project runoff flow rates and durations that do not exceed pre-development (naturally occurring) runoff flow rates and durations on redevelopment projects with existing impervious surfaces may be challenging. Thus, section F.1.h.(3) has been included to allow the Copermittees to propose, as part of the HMP, a waiver program specifically for Priority Development Projects that are redevelopment projects, as defined by section F.1.d.(1)(b). Because redevelopment projects may not be able to achieve post-project runoff flow rates and durations that do not exceed pre-development (naturally occurring) runoff flow rates and durations through onsite management and control measures, offsite mitigation measures may be required. Redevelopment projects must achieve post-project runoff flow rates and durations that are less than or equal to pre-project and down to pre-development runoff flow rates and durations to be eligible to receive a waiver under the program. For a redevelopment project, the pre-project runoff flow rates and durations are those currently being discharged by the existing development prior to the redevelopment project being built. Meeting pre-project runoff flow rates and durations is usually a less stringent performance criteria than meeting the pre-development runoff flow rates and durations. Implementing BMPs to meet the pre-project flow rates and durations is significantly easier and cheaper for a redevelopment project compared to meeting pre-development flow rates and durations. If a project is granted a waiver, the estimated incremental hydromodification impacts from not achieving the pre-development (naturally occurring) runoff flow rates and durations for the project site must be fully mitigated with offsite mitigation. Offsite mitigation measures may include utilizing regional hydrologic control measures (e.g., regional detention or infiltration basins) or rehabilitation of stream channels to achieve sustainable channel configurations.

Section F.1.h (6) describes interim hydromodification criteria that must be implemented by the Copermittees until the final HMP is found to be adequate by the San Diego Water Board Executive Officer. The Copermittees currently have hydromodification requirements in the SSMP (section 4.4 of the Riverside County WQMP). Until the final HMP is required to be implemented, the Copermittees must continue implementing their existing hydromodification requirements. The existing hydromodification requirements²⁰¹ allow exemptions for Priority Development Projects if they meet one of three conditions. One of those conditions is if a project discharges directly to a publicly-owned, operated and maintained MS4. This condition has been

²⁰¹ Riverside County Copermittees, 2006 (updated in 2009). Riverside County Water Quality Management Plan (WQMP), Section 4.4.

too broadly applied and has resulted in many projects being exempt from the hydromodification requirements in the past.

Therefore, the Order modifies the conditions that may exempt Priority Development Projects from implementing the interim hydromodification criteria. The modifications to the conditions are minor and can be implemented in the interim until the final HMP is approved. This allows the Copermittees to focus their resources on development of the final HMP.

Finally, the requirements included in section F.1.h do not supersede the LID BMP requirements in section F.1.d. (4). In certain situations, the requirements to incorporate LID BMPs will satisfy the requirements for hydromodification management. Using LID is a viable option for both accomplishing hydromodification management and pollutant load reductions.

Section F.1.i (Unpaved Roads Development) specifically requires the Copermittees to implement or require implementation of BMPs for erosion and sediment control after construction of all new unpaved roads. As discussed for Finding D.1c, design and source control BMPs for unpaved roads are needed to minimize the discharge of sediment to the MS4s and receiving waters, especially during storm events. There are several guidance documents available (see Discussion for Finding D.1.c) that include design and source control BMPs that can be readily implemented by the Copermittees for the development of new unpaved roads.

F.2. Construction Component

The following legal authority applies to section F.2:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D) provides that the proposed management program include “A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(1) provides that the proposed management program include “A description of procedures for site planning which incorporate consideration of potential water quality impacts.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(2) provides that the proposed management program include “A description of requirements for nonstructural and structural best management practices.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(3) provides that the proposed management program include “A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(4) provides that the proposed management program include “A description of appropriate educational and training measures for construction site operators.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermitttee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(b)(14) provides that “The following categories of facilities are considered to be engaging in ‘industrial activity’ for the purposes of this subsection: [...] (x) Construction activity including cleaning, grading and excavation activities [...].”

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Section F.2 has additions to ensure the protection of threatened and endangered species and requires the consideration of potential impacts from the use of Active/Passive Sediment Treatment (AST) at sites determined by the Copermitttees to be exceptional threats to water quality. These requirements were added to ensure additional protection of the Beneficial Uses of waters of the State.

Section F.2.a (Ordinance Update) requires each Copermitttee to review and update its grading and storm water ordinances as necessary to comply with the MS4 permit. By updating the grading and storm water ordinances, the Copermitttees will have the necessary legal authority to require construction sites to implement effective BMPs that will reduce pollutant discharges to the maximum extent practicable. The Order allows the Copermitttees 365 days to review and update their ordinances. The 365 days should be adequate to allow for the relatively minor changes that might be needed since their ordinances were last updated under Order No. R9-2004-001.

Section F.2.b (Source Identification) requires the Copermittees to develop and update a watershed based inventory of all construction sites regardless of size or ownership. This section has been modified to require the inventory be updated regularly, rather than annually because constructions sites tend to change often within the course of a year. More frequent updates will ensure the Copermittees have a more accurate inventory of construction sites within their jurisdiction. A regularly updated inventory of active construction sites will assist the Copermittees in ensuring that all sites are inspected per Order requirements. The Order does not specify the frequency of updates, and instead relies on each Copermittee to develop updates appropriate to local construction activity. Failure to maintain a useful inventory would be a violation of the Order.

Section F.2.c (Site Planning and Project Approval Process) requires Copermittees to incorporate consideration of potential water quality impacts prior to approval and issuance of construction and grading permits.

This section now requires the Copermittees to review project proponents' runoff management plans for compliance with local regulations, policies, and procedures. USEPA recommends that it is often easier and more effective to incorporate storm water quality controls during the site plan review process or earlier.²⁰² In the Phase I storm water regulations, USEPA states that a primary control technique is good site planning.²⁰³ USEPA goes on to say that the most efficient controls result when a comprehensive storm water management system is in place.²⁰⁴ To determine if a construction site is in compliance with construction and grading ordinances and permits, USEPA states that the "MS4 operator should review the site plans submitted by the construction site operator before ground is broken."²⁰⁵ Site plan review aids in compliance and enforcement efforts since it alerts the "MS4 operator early in the process to the planned use or non-use of proper BMPs and provides a way to track new construction activities."²⁰⁶

The Copermittees have the discretion to determine the depth and detail of the review, as well as the method by which the review will be conducted. The Copermittees review must at least verify that the project proponent's runoff management plan complies with the Copermittee's construction, storm water, and grading ordinances and permits prior to issuing the permit.

Section F.2.d (BMP Implementation) includes modifications to the requirements for each Copermittee to designate and ensure implementation of a set of minimum BMPs at construction sites. These modifications are based on San Diego Water Board findings and experience during implementation of Order No. R9-2004-001.

²⁰² USEPA, 1992. Guidance 833-8-92-002. Section 6.3.2.1.

²⁰³ Federal Register / Vol. 55, No. 222 / Friday, November 16, 1990 / Rules and Regulations. P. 48034.

²⁰⁴ Ibid.

²⁰⁵ USEPA, 2000. Guidance 833-R-00-002. Section 4.6.2.4, P. 4-30.

²⁰⁶ Ibid., P. 4-31.

As a result, the Order requires a minimum set of BMPs to be designated for all sites. In addition to the minimum set of BMPs, enhanced BMPs must be designated and implemented for sites tributary to (i.e. upstream within the same Hydrologic Subarea of) a 303(d) listed water body, or within, directly adjacent to, or discharging directly to ESAs. Enhanced BMPs are control actions and measures specifically targeted to the pollutant or condition of concern and of higher quality and effectiveness than the minimum control measures otherwise required. Enhanced BMPs are expected to be better and more effective for pollutant removal than the minimum set of BMPs.

For sites that are identified as exceptional threat to water quality, active/passive sediment treatment (AST) is required to be implemented in addition to the minimum set and/or enhanced sediment control BMPs. AST is required at construction sites that are identified by the Copermittee as an exceptional threat to water quality due to high turbidity or suspended sediment levels in the site's effluent even when other sediment control BMPs have been implemented. In cases where the Copermittee's designated minimum set of BMPs and/or enhanced BMPs are not able or expected to be able to reduce turbidity or suspended sediment levels to a level that will be protective of water quality, AST is necessary and is considered MEP for the discharges from these sites.

AST has been effectively implemented extensively in the other states and in the Central Valley Region of California.²⁰⁷ In addition, the San Diego Water Board's inspectors have observed AST being effectively implemented at large sites greater than 100 acres and at small, less than 5 acre, in-fill sites. AST is often necessary for Copermittees to ensure that discharges from construction sites are not causing or contributing to a violation of water quality standards. For example, the Basin Plan lists the water quality objective for turbidity as 20 NTU for all hydrologic areas and subareas except for the Coronado HA (10.10) and the Tijuana Valley (11.10). For certain construction sites with high clay content soils, large slopes and exposed areas, the only technology that is likely to meet 20 NTU is AST combined with erosion and sediment controls. To ensure the MEP standard and water quality standards are met, the requirement for implementation of AST at exceptional threat construction sites has been added to the Order, while still providing sufficient flexibility for each Copermittee's unique program.

The Copermittees may define types of construction sites, and/or at any time identify any construction sites after inspections, that are considered exceptional threats to water quality warranting AST. AST may include any sediment control technologies that are capable of reducing turbidity or suspended sediment levels in a construction site's discharge to meet water quality standards in receiving waters.

The Order does not include seasonal restrictions on grading. Seasonal restrictions on grading for storm water are difficult to implement due to the conflict between seasonal grading restrictions, avian breeding and nesting seasons and the seasonal passage of

²⁰⁷ State Water Board, 2004. Conference on Advanced Treatment at Construction Sites.

endangered salmonids; therefore the seasonal grading restrictions have not been included with the other BMPs in the Order. For example, the Least Bell's Vireo and the Coastal California Gnatcatcher, found in southern California, are listed as federally endangered and threatened, respectively.²⁰⁸ Permits issued by the California Department of Fish and Game (CDFG) restrict grading during these birds' breeding seasons, which is from April 10 to August 31 for the Least Bell's Vireo²⁰⁹ and from February 15 to August 31 for the Coastal California Gnatcatcher.²¹⁰ Ideally storm water restrictions on grading would be during the rainy season from October 1 through April 30.²¹¹ Combined, these restrictions would limit construction grading to be during the month of September, which is infeasible. Section D.2.d of the Order still requires project proponents to minimize grading during the rainy season and coincide grading with seasonal dry weather periods to the extent feasible.

Section F.2.e (Inspections) establishes criteria for inspections based on risk factors including size, season, and location of the construction site. Modifications have been made to requirements of Order No. R9-2004-001 based on the experience of the Copermitttees and San Diego Water Board construction programs.

The types of construction sites that must be inspected every two weeks during the rainy season have been changed from Order No. R9-2004-001. In general, because large construction sites (i.e. greater than 50 acres) have been closely scrutinized during the last permit period, they tend to be adequately implementing BMPs. Smaller construction sites (i.e. site with less than 50 acres), however, were not inspected as frequently and can pose a significant threat to water quality. The final rule recently promulgated by USEPA for construction sites²¹² identified construction sites with 20 or more acres of land disturbed at one time as posing a significant threat to water quality during the rainy season. Thus, the San Diego Water Board recognized that smaller construction sites needed to be inspected more frequently. As with the construction inspection requirements that were recently adopted for the Orange County Phase I MS4s, this Order requires sites in active grading during the rainy season that are over 30 acres, rather than sites over 50 acres, be inspected every two weeks.

The Order also lowers the size of construction sites adjacent to or discharging directly to ESAs that receive scrutiny. Order No. R9-2004-001 requires such sites five acres and more to be inspected every two weeks during the rainy season. This Order requires such sites one acre and above and tributary to (i.e. with the same Hydrologic Subarea of) a CWA section 303(d) water body segment impaired for sediment; or within, directly adjacent to, or discharging directly to a receiving water within an ESA to be inspected every two weeks during the rainy season and once during August or

²⁰⁸ State of California, Department of Fish and Game, 2010. State and Federally Listed Endangered and Threatened Animals of California.

²⁰⁹ United States Department of the Interior, Fish and Wildlife Service, 2001. Least Bell's Vireo Survey Guidelines.

²¹⁰ United States Department of the Interior, Fish and Wildlife Service, 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines.

²¹¹ San Diego Water Board, 2001. Order No. 2001-01, San Diego County MS4 Permit. Directive F.2.g.(2).

September. The lower size threshold is consistent with Phase II storm water permits and the Construction General Permit, State Water Board Order No. 2009-0009-DWQ.

The Copermittees also have the discretion to define or identify other construction sites that are significant threats to water quality that must be inspected every two weeks. Several factors are provided that must be considered by each Copermittee in evaluating threat to water quality.

Finally, types of construction sites that must be inspected at least monthly during the rainy season have been changed from Order No. R9-2004-001. All construction sites with one acre or more of soil disturbance must be inspected monthly during the rainy season instead of just 3 times during the rainy season. This level of inspection is necessary by the Copermittees to ensure adequate compliance with their grading, building, storm water or other water quality related orders and provisions.

This section also requires the Copermittees to track the number of inspections for each inventoried construction site. This requirement has been added to ensure that the Copermittees can demonstrate that construction sites are inspected at the minimum frequencies.

Section F.2.g requires the Copermittees to notify the San Diego Water Board when high level enforcement has been issued to a construction site as a result of storm water violations. The Copermittees will define the types of high level enforcement that will warrant a notification of the San Diego Water Board in their JRMPs. Copermittees are also required to annually notify the San Diego Water Board of construction sites that have alleged violations. This section was added to enhance San Diego Water Board and Copermittee communication and coordination in regulating construction sites.

F.3 Existing Development Component

F.3.a. Municipal

The following legal authority applies to section D.3.a:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(1) provides that the proposed management program include "A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(3) provides that the proposed management program include "A description for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving

waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of de-icing activities.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(4) provides that the proposed management program include “A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(5) provides that the proposed management program include “A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include “A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.”

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Section F.3.a.(2) (General BMP Implementation) requires the Copermittees to designate minimum BMPs for general municipal areas and activities, regardless of their threat to water quality. BMPs must also be designated for special events. The designated minimum BMPs required to be implemented at a site can be based on the sources or activities present at the site. Threat to water quality is used to determine inspection frequencies in section F.3.a.(8).

Section F.3.a.(3), F.3.a.(4), and F.3.a.(5) (BMP Implementation for Specific Categories) establishes requirements for specific categories of activities and areas. These are selected based on the CWA and findings of the Copermittees in annual reports and ROWD that identify these activities as warranting special attention.

Pesticides, Herbicides, and Fertilizers. 40 CFR 122.26(d)(2)(iv)(A)(6) requires a description of a storm water program for pesticides, herbicides, and fertilizers. In addition, water quality data demonstrates widespread presence of such pollutants in

receiving waters and MS4 discharges. In response to similar requirements of Order No. R9-2004-001, the Copermittees have developed a specific Integrated Pest Management, Pesticides, and Fertilizer guidelines.

Flood Control Structures. In order to more closely meet the intent of the federal regulations and guidance, the requirement has been modified. 40 CFR 122.26(d)(2)(iv)(A)(4) requires "A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible." Retrofitting flood control devices can reduce storm water pollutants and improve water quality.

USEPA expands on the federal provision with the following information: "Storm water management devices and structures that focus solely on water quantity are usually not designed to remove pollutants, and may sometimes harm aquatic habitat and aesthetic values".²¹³ As flood control structures and other elements of the MS4 age and retrofitting becomes necessary, opportunities for water quality improvements arise.

Conveyance systems which take water quality consideration into account (such as grassed swales, vegetated detention ponds, etc.) can often cost less to construct than traditional concrete systems. Evaluation of the applicability of such systems during retrofitting must occur to ensure that pollutants in storm water runoff are reduced to the maximum extent practicable. USEPA supports utilizing BMPs for pollution reduction in flood management projects, stating that "The proposed management program must demonstrate that flood management projects take into account the effects on the water quality of receiving water bodies. [...] Opportunities for pollutant reduction should be considered".²¹⁴

There are generally two types of retrofits for flood control structures. The first type involves adding an engineered device to an existing structure in order to treat or divert runoff. Examples include catch basin inlet filters/screens, ultraviolet disinfection facilities, hydrodynamic separators, and diversions to the sanitary sewer. The second type involves re-installing pervious or natural treatment features to facilities. Examples include removing concrete portions of conveyances to create pervious conveyances; and creating treatment wetlands within flood detention facilities. The later type of retrofit is preferred by the San Diego Water Board. They are likely more sustainable over the long-term because they may require less rigorous operation and maintenance than the former. They may also provide the additional benefit of providing significant

²¹³ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. Washington D.C. EPA/833-B-92-002.

²¹⁴ Ibid.

or incidental opportunities for beneficial uses (e.g., recreation, wildlife, water supply).^{215,216}

Sweeping of Municipal Areas. Sweeping municipal areas would likely be done in the absence of the Order. However, in certain cases it is an important component of a jurisdictional runoff management program. The Order contains requirements to ensure that the use of street sweeping is optimized for runoff applications if it is to be used and reported as a BMP.

Section F.3.a.(6) (Operation and Maintenance of MS4 and Treatment Controls) requires the Copermittees to inspect and remove waste from their MS4s prior to the rainy season.

Maintenance is critical to the successful implementation of every storm water runoff management program. USEPA finds that “Lack of maintenance often limits the effectiveness of storm water structural controls such as detention/retention basins and infiltration devices. [...] The proposed program should provide for maintenance logs of, and identify specific maintenance activities for, each class of control, such as removing sediment from retention ponds every five years, cleaning catch basins annually, and removing litter from channels twice a year.

If maintenance activities are scheduled infrequently, inspections must be scheduled to ensure that the control is operating adequately. In cases where scheduled maintenance is not appropriate, maintenance should be based on inspections of the control structure or frequency of storm events. If maintenance depends on the results of inspections or if it occurs infrequently, the applicant must provide an inspection schedule. The applicant should also identify the municipal department(s) responsible for the maintenance program”.²¹⁷ The MS4 maintenance requirements are based on the above USEPA recommendations. This maintenance will help ensure that structural controls are in adequate condition to be effective year round, but especially at the beginning of and throughout the rainy season.

Two requirements have been added to the Order that were not within Order No. R9-2004-001. Subsection (iii) allows a decreased inspection frequency for facilities that are routinely clean, and subsection (iv) requires trash to be removed from open channels and detention basins in a timely manner. Typically, Copermittees have reported annual or semi-annual creek cleanups as significant BMPs. The large volumes of trash reported to be removed during these events demonstrates the significant amount of trash that accumulates in the channels. In order to reduce the effect of the trash, the Order requires that trash be removed more frequently.

²¹⁵ Burton, Carmen et al. 2005. Assessing Water Source and Channel Type as Factors Affecting Benthic Macroinvertebrate and Periphyton Assemblages in the Highly Urbanized Santa Ana River Basin, California. American Fisheries Society Symposium. Vol.47 pp.239-262.

²¹⁶ Stromberg, Juliet C. 2001. Restoration of Riparian Vegetation in the South-Western United States: the importance of flow regimes and fluvial dynamism. Journal of Arid Environments. Vol49, pp.17-34.

²¹⁷ USEPA, 1992. Guidance Manual for the Preparation of Part II of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems. Washington D.C. EPA/833-B-92-002.

Section F.3.a.(7) (Infiltration from Sanitary Sewer to MS4) requires the Copermittees to implement controls and measures to prevent and eliminate sewage infiltration or seepage from municipal sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4.

Sections F.3.a.(8) and F.3.a.(9) (Inspections and Enforcement) establishes a minimum set of municipal areas and activities for oversight and inspection by the Copermittees and requires that Copermittees properly enforce runoff requirements at municipal areas and activities.

Section F.3.a.(10) (Copermittee Maintained Unpaved Roads Maintenance) requires the Copermittees to implement or require implementation of BMPs for erosion and sediment control during and after maintenance activities on the unpaved roads that the Copermittees are responsible for maintaining, particularly in or adjacent to stream channels or wetlands. As discussed for Finding D.1c, source control BMPs for unpaved roads are needed to minimize the discharge of sediment to the MS4s and receiving waters. There are several guidance documents available (see Discussion for Finding D.1.c) that include BMPs that can be readily implemented by the Copermittees for the development of new unpaved roads. This requirement is necessary to ensure the Copermittees minimize the discharge of sediment from their unpaved roads used for their maintenance activities.

F.3.b. Commercial / Industrial

The following legal authority applies to section F.3.b:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C) provides that the proposed management program include "A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(1) provides that the Copermittee must "identify priorities and procedures for inspections and establishing and implementing control measures for such discharges."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(C)(2) provides that the proposed management program shall "Describe a monitoring program for storm water discharges associated with the industrial facilities identified in paragraph (d)(2)(iv)(C)

of this section, to be implemented during the term of the permit, including the submission of quantitative data on the following constituents: any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing NPDES permit for a facility; oil and grease, COD, pH, BOD₅, TSS, total phosphorus, total Kjeldhal nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).”

Federal NPDES regulation 40 CFR 122.26(d)(2)(ii) provides that the Copermitttee “Provide an inventory, organized by watershed of the name and address, and a description (such as Standard Industrial Classification [SIC] codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, storm water associated with industrial activity.”

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to “control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(A) provides that each Copermitttee must demonstrate that it can control “through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from site of industrial activity.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) provides that the Copermitttee develop a proposed management program which includes “A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls.”

Section F.3.b.(1) (Source Identification) requires that botanical and zoological gardens and exhibits, building material retailers and storage, animal boarding facilities and kennels, mobile pet services, plumbing services, and power washing services be included in the Copermitttees’ inventory of commercial sites/sources. These commercial or industrial sites and sources have been identified by the Copermitttees and/or the San Diego Water Board as facilities that may contribute a significant pollutant load to the MS4. In cases where a particular type of facility is not present or known to operate within a Copermitttee’s jurisdiction, there is no expectation that there would be any such facilities included in the inventory. If, however, that type of facility does become established or begins operating within a Copermitttee’s jurisdiction during the period of this Order, the Copermitttees are expected to identify those sites or sources and include them in their inventory of commercial or industrial facilities. This

is not a significant change because Order No. R9-2004-001 requires that any commercial or industrial site or source determined by a Copermittee to contribute a significant pollutant load to the MS4 be added to its inventory of commercial or industrial sites.

The inventory of commercial and industrial facilities is expected to be reviewed and, if necessary, updated at least annually and included in the Annual Report. The inventory is expected to include the prioritization of each facility to ensure the facility is inspected at the correct frequency. If changes are made to the prioritization for any facilities, justification for the changes is expected to be reported in the Annual Report. The inventory is the foundation for the tracking of BMP implementation, number and date(s) of inspections performed, inspection findings, violations, and enforcement actions for each commercial or industrial facility, all of which are expected to be included in the Annual Report.

Section F.3.b.(3) (Mobile Businesses Program) requires each Copermittee to develop and implement a program to reduce the discharge of storm water pollutants from mobile businesses to the MEP and to prevent the discharge of non-storm water. Mobile businesses are service industries that travel to the customer to perform the service rather than the customer traveling to the business to receive the service. Examples of mobile businesses are power washing, mobile vehicle washers, carpet cleaners, port-a-potty servicing, pool and fountain cleaning, mobile pet groomers, plumbers, and landscapers. These mobile services produce waste streams that could potentially impact water quality if appropriate BMPs are not implemented.

Order No. R9-2004-001 also requires BMP implementation for certain mobile businesses (e.g., mobile vehicle washing and mobile carpet cleaning). These storm water requirements of Order No. R9-2004-001 are not significantly different from the existing requirements. The Order specifies the Copermittees must prevent non storm water dry weather flows from entering the MS4 (see section C.2.b). Special attention is required for mobile businesses because of the difficulty of controlling discharges from mobile businesses with existing programs.

Mobile businesses present a unique difficulty in storm water regulation. Due to the transient nature of the business, the regular, effective practice of unannounced inspections is difficult to implement. Also, tracking these mobile businesses is difficult because they are often not permitted or licensed and their services cross Copermittee jurisdictions. Mobile businesses that operate within a municipality may be based in another municipality or even outside the Region.

The Order takes into account the difficulties in regulating mobile businesses. The Copermittees may choose to cooperate in developing and implementing their programs for mobile businesses, including sharing of mobile business inventories, BMP requirements, enforcement action information, and education. Sharing information will allow the Copermittees to better identify and track mobile businesses operating in their jurisdictions.

Because BMPs have been developed already, but communication with mobile businesses may be difficult, the Order provides broad flexibility to the Copermittees for developing a targeted program within the Commercial portion of each JRMP.

Section F.3.b.(4) (Inspection of Industrial and Commercial Sites/Sources) includes requirements for inspections of industrial and commercial sites/sources. The Order is similar to the Order No. R9-2004-001 in requiring that inspections check for coverage under the General Industrial Permit; assessment of compliance with Copermittee ordinances and permits related to storm water and non-storm water runoff; assessment of BMP implementation, maintenance, and effectiveness; visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and education and outreach on storm water pollution prevention.

The Order also requires that inspections include review of BMP implementation plans if the site uses or is required to use such a plan, and the review of facility monitoring data if the site monitors its runoff. BMP implementation plans do not include SSMPs required pursuant to section F.1.d. If a facility is not required to have a BMP implementation plan or required to collect monitoring data, the inspection does not need to include a review of this information. BMP implementation plans and monitoring data are expected to be available for any facility that is covered under the General Industrial Permit. The BMP implementation plans and monitoring data can provide the inspector pertinent information that can be used during the visual inspection of the facility (e.g., BMPs implemented, maintenance records for BMPs, pollutants in storm water runoff). The Copermittees' inspectors have the discretion to determine the depth and detail of the review and use of the information in conducting the inspection.

Changes in the Order's requirements for inspection procedures mimic USEPA's guidance: "Site inspections should include (1) an evaluation of the pollution prevention plan and any other pertinent documents, and (2) an onsite visual inspection of the facility to evaluate the potential for discharges of contaminated storm water from the site and to assess the effectiveness of the pollution prevention plan."²¹⁸ In 1999, USEPA "recognized visual inspection as a baseline BMP for over 10 years," and "visual inspections are an effective way to identify a variety of problems. Correcting these problems can improve the water quality of the receiving water."²¹⁹

Inspection frequencies in the Order have been modified from Order No. R9-2004-001. Order No. R9-2004-001 specifies frequencies for inspecting commercial/industrial sites based on threat to water quality and requires high priority sites to be inspected annually. For sites not identified as high priority, each site must be inspected at least once within a 5 year period.

²¹⁸ USEPA, 1992. Guidance 833-8-92-002, section 6.3.3.4 "Inspection and Monitoring".

²¹⁹ USEPA, 1999. 832-F-99-046, "Storm Water Management Fact Sheet – Visual Inspection".

Also, the option for implementing a third party certification program is included. To the extent that third party certifications are conducted to fulfill the inspection requirements for this section of this Order, the Copermittee will be responsible for conducting and documenting quality assurance and quality control of the third-party certifications. The Copermittees may propose a third party certification program that must receive approval from the San Diego Water Board Executive Officer prior to implementation. The Order includes several requirements that must be included in the third party certification program in order for it to be considered for approval by the San Diego Water Board.

Section F.3.b.(6) (Reporting of Non-Compliant Sites) has been added as additional notification to the San Diego Water Board regarding commercial and industrial sites. Copermittees are required to annually notify, prior to the rainy season, the San Diego Water Board of commercial and industrial sites that have any unresolved high level enforcement actions. This was added to enhance San Diego Water Board and Copermittee communication. Information may be provided as part of the JRMP annual report if submitted prior to the rainy season.

F.3.c. Residential

The following legal authority applies to section F.3.c:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A) provides that the Copermittee develop a proposed management program which includes "A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls."

Federal NPDES regulation 40 CFR 122.44(d)(1)(i) requires NPDES permits to include limitations to "control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality."

Section F.3.c.(4) (Common Interest Areas / Home Owner Association Areas / Mobile Home Parks) includes requirements for common interest areas / homeowners' associations and mobile home parks. Many residential neighborhoods and some commercial areas within the jurisdiction of the Copermittees are within common interest developments and are, therefore, subject to management of common areas by associations. The Declaration of the Covenants, Conditions and Restrictions (CC&Rs)

contains the ground rules for the operation of such an association. CC&Rs are an appropriate method for protecting the common plan of developments and to provide for a mechanism for financial support for the upkeep of common areas including roads, storm drains, and other components of storm water conveyance systems.

This Order interprets common interest areas as property subject to the codes and ordinance and enforcement mechanisms of the city or county in which it resides and, therefore, holds the local government responsible for the discharge of wastes from storm water conveyance systems located within these areas.

Section F.3.d. Retrofitting Existing Development

The following legal authority applies to section F.3.d:

Legal Authority: The legal authority for retrofitting existing development is the same legal authority as that identified for municipal, industrial, commercial and residential development sections (See fact sheet discussion on those sections, F.3.a – c). In particular, CWA sections 402(p)(3)(B)(ii-iii), and CWC section 13377 give the Regional Water Board the legal authority to require retrofitting of existing development.

Section F.3.d has been added to require a plan for the retrofit of existing development (see Finding D.3.h and Discussion). This section contains specific requirements for a program to retrofit existing development. When appropriately applied as in this Order, retrofitting existing development meets MEP standards.

Existing BMPs are not sufficient, as evidenced by 303(d) listings and exceedances of Water Quality Objectives from the Copermittees monitoring reports. More advanced BMPs, including the retrofitting of existing development with LID, are part of the iterative process. Previous permits limited the requirement of treatment control BMPs to new development and redevelopment. Based on the current rate of redevelopment compared to existing BMPs, the use of LID only on new and redevelopment will not adequately address current water quality pollution and problems, including downstream hydromodification. Retrofitting existing development is practicable for a municipality through a systematic evaluation, prioritization and implementation plan focused on impaired water bodies, pollutants of concern, areas of downstream hydromodification, feasibility and effective communication and cooperation with private property owners. The retrofitting requirements are based largely on guidance from the USEPA²²⁰ and the Center for Watershed Protection.²²¹

Section F.3.d.(1) requires the Copermittees to identify and inventory areas of existing development within their jurisdiction as candidates for retrofitting projects. The Copermittees are expected to examine the inventories that they are maintaining as required under sections F.3.a-c, inspection findings, and any other forms of data and information to identify the candidates for retrofitting projects. Several areas of existing

²²⁰ USEPA, MS4 Permit Improvement Guide, EPA 833-R-10-001, April, 2010.

²²¹ Center for Watershed Protection, Urban Subwatershed Restoration Manual No. 3, Urban Stormwater Retrofit Practices Manual, Version 1.0, July/August 2007.

development that must be identified as candidates for retrofitting projects are listed. Based in part on guidance developed by the Center for Watershed Protection, these areas of existing development are expected to provide the most immediate improvements for water quality through retrofitting. This list of areas that must be considered does not limit the Copermittees from identifying other areas within their jurisdiction that may be evaluated for retrofitting projects.

Section F.3.d.(2) requires each Copermittee to evaluate the candidates identified under section F.3.d.(1) and rank them based on several criteria. One or more types of retrofit source control or treatment control BMPs may be evaluated for each candidate. Landowner cooperation is among the criteria to evaluate and prioritize retrofitting. For example, retrofitting projects on publicly owned properties are likely and expected to be feasible with sufficient funding secured.

Section F.3.d.(4) requires each Copermittee to cooperate with private property owners to encourage the implementation of site specific retrofitting projects. Because the Copermittees have limited authority to directly require retrofitting projects on private property, the Copermittees must encourage private property owners to implement retrofitting projects through indirect programs and incentives. Several programs and incentives that have been successful in other areas are provided in the Order for the Copermittees consideration in developing their practices to encourage private property owners to retrofit their sites. This list, however, does not limit the Copermittees from identifying and considering other practices that may be effective in encouraging private property owners to implement retrofitting projects on their sites.

Section F.3.d.(5) requires retrofit BMPs that are implemented to be tracked in accordance with section F.1.f. The retrofit BMPs must also be inspected. Retrofit BMPs on publicly owned properties must be inspected per section F.1.f. Privately owned retrofit BMPs must be inspected as needed to ensure proper operation and maintenance. Tracking and inspecting retrofit BMPs is necessary for the Copermittee to ensure that the retrofit BMPs are not removed and are maintained to remain effective. Inspections can also provide the Copermittee useful information on the effectiveness of individual retrofit BMPs. For retrofit BMPs on publicly owned properties, tracking and inspection will correct any problems with the BMPs as soon as a problem arises and will ensure proper maintenance.

For retrofit BMPs on privately owned properties, retrofit BMPs are expected to be implemented and maintained by the property owner on a voluntary basis. The retrofit BMPs must be tracked by the Copermittees, but their inspections are required less frequently due to access issues (i.e. on an as-needed basis). Voluntary retrofitting projects do not warrant frequent Copermittee inspections due to the property owner's willingness to retrofit. Periodic inspections may be performed to ensure the site owner has not removed the retrofit BMPs. Periodic inspections would also ensure that the retrofit BMPs remain effective by providing an opportunity for the inspector to educate the original and subsequent site owner(s) if the retrofit BMP is not operating effectively and requires some maintenance.

F.4. Illicit Discharge Detection and Elimination

The following legal authority applies to section F.4:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B) provides that the proposed management program “shall be based on a description of a program, including a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(1) provides that the Copermittee include in its proposed management program “a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(2) provides that the Copermittee include in its proposed management program “a description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens.”

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(3) provides that the Copermittee include in its proposed management program “procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(4) provides that the Copermittee include in its proposed management program “a description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(5) provides that the Copermittee include in its proposed management program “a description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(6) provides that the Copermittee include in its proposed management program “a description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials.”

Federal NPDES regulations 40 CFR 122.26(d)(2)(iv)(B)(7) provides that the Copermittee include in its proposed management program “a description of controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary.”

Section F.4.a (Prevent and Detect Illicit Discharges and Connections) requires the Copermittees to implement a program to actively seek and eliminate IC/IDs. Additional wording has been added to this section to clarify and ensure that all appropriate municipal personnel (i.e. field personnel) are utilized in the program to observe and report these illicit discharges and connections.

Section F.4.b (Maintain MS4 Map) requires each Copermittee to maintain an updated map of its entire MS4 and the corresponding drainage areas within its jurisdiction. The Order specifies that the map must include the segments of the storm sewer system owned, operated, and maintained by the Copermittee, and include locations of all known inlets, connections with other MS4s, and outfalls to the Copermittee’s MS4. Knowing where their inlets, access points, connections with other MS4s, and outfalls are located will allow the Copermittees to better track, identify, and eliminate IC/IDs. The use of a geographic information system (GIS) by the Copermittees is strongly encouraged for the MS4 map. The Riverside County Flood Control and Water Conservation District (RCFCD) currently maintains a GIS layer that is a compilation of all the Copermittee MS4 maps. Although an individual Copermittee may not have GIS capabilities, each Copermittee has agreements with RCFCD for providing updated MS4 maps to the RCFCD to update this GIS layer and subsequent submittal to the San Diego Water Board.

Section F.4.e (Investigation / Inspection and Follow-Up) requires the Copermittees to conduct follow up investigations and inspect portions of the MS4 for illicit discharges and connections, based on dry weather effluent analytical monitoring results. The section also requires the Copermittees to establish criteria for triggering follow up investigations. Additional language has been added to this section to clarify the minimum level of effort and timeframes for follow up investigations when dry weather limitations are exceeded. This section requires the Copermittees to include and evaluate the specified action levels in their response criteria and to develop response criteria for pollutants without action levels.

Timely investigation and follow up of exceedances is necessary to identify sources of illicit discharges, especially since many of the discharges are transitory. The requirements for immediate response to obvious illicit discharges and a 2 business day minimum response time when field screening action levels are exceeded is necessary to ensure timely response by the Copermittees. When analytical data indicate an exceedance of action levels, the Copermittee(s) have 5 business days to confirm the need to initiate an investigation to identify the source of the exceedance. The Copermittees are expected to investigate for potential sources of the pollutant(s) that may have caused the exceedance of action levels upstream of the collection point and collect additional analytical and field data as necessary. If the quality of the data

is confirmed to be unreliable or inaccurate and the investigation indicates there were no sources of the pollutant that could have caused an exceedance of the applicable action level, then further investigation is no longer warranted and should be documented in the Annual Report.

Section F.4.f (Elimination of Illicit Discharges and Connections) requires the Copermittee(s) to take immediate action to initiate steps necessary to eliminate illicit discharges, illicit discharge sources, and illicit connections that have been detected as a result of the investigations required under section F.4.e. The steps necessary to eliminate the illicit discharge or connection are typically initiated with identifying and contacting the person responsible for the illicit discharge or connection. The Copermittee(s) are expected to eliminate the detected illicit discharges and connections as soon as possible after they are able to contact the person responsible for the illicit discharge or connection. The steps expected and/or necessary to eliminate illicit discharges and connections under different scenarios and for different sources should be developed and implemented by the Copermittee(s). These steps may be outlined by the Copermittee(s) in their JRMPs.

In some cases, the Copermittee(s) may determine that one of the necessary steps is to contact the San Diego Water Board to assist in resolving and eliminating illicit discharges and connections. The Copermittee(s), however, are expected to exhaust all of their available administrative and enforcement authorities and mechanisms for addressing and eliminating illicit discharges and connections before contacting the San Diego Water Board for assistance.

Section F.4.h (Prevent and Response to Sewage Spills and Other Spills) requires each Copermittee to implement measures to prevent and respond to spills into its MS4. These requirements are consistent with Order No. R9-2004-001 and based on federal regulations at 40 CFR 122.26(d)(2)(iv)(B)(4). Those federal NPDES regulations clearly require that owners and operators of MS4s have procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer.

The Order includes sewage and non-sewage spills in the requirement for spill prevention and response. Federal regulations clearly define sewage as an illicit discharge that must be addressed by municipalities (see Phase II Final Rule, p.68758). Sewage is an illicit discharge to the MS4 that threatens public health. As such, the Copermittees must implement measures to prevent sewage from entering the MS4 system and must respond to illicit discharges that have entered the system. This section has been revised to clarify that management measures and procedures must be implemented to prevent, respond to, and cleanup spills. In addition to the management measures and procedures, a mechanism for the Copermittees to be notified of spills is necessary in order for those management measures and procedures to be implemented as soon as possible after a spill has occurred. The facilitation of public reporting of illicit discharges required by section F.4.c, in addition to regular and open communication with other agencies (e.g., sanitary sewer districts),

may also serve as a mechanism for notifying the Copermittees of spills within their jurisdiction.

Section F.3.a.(7) of the Order includes requirements for measures that must be taken to prevent sewage spills. Examples of measures being implemented by Copermittees include inspections of fats, oils, and grease management at restaurants. Other preventative measures can be implemented during routine planning efforts for new development and redevelopment projects. Similarly, building permit inspections should be used to verify the integrity of the sanitary and storm sewer infrastructure and ensure that cross-connections between the two are avoided.

F.5. Public Participation Component

The following legal authority applies to section F.5:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

No significant changes from Order No. R9-2004-001 have been made to this section of the Order.

F.6. Education Component

The following legal authority applies to section F.6:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(A)(6) provides that the proposed management program include "A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as *educational activities*, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(B)(6) provides that the proposed management program include "A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv)(D)(4) provides that the proposed management program include "A description of appropriate educational and training measures for construction site operators."

Section F.6 (Education Component) includes an introductory paragraph that is the same as in Order No. R9-2004-001, except for the addition of New Development / Redevelopment Project Applicants, Developers, Contractors, Property Owners, and other Responsible Parties to the list of target communities.

Section F.6.a (General Requirements) includes education topics that are required for the education programs developed and implemented for the target communities. The Copermittees can choose how and to what degree to address these topics. Some topics may be more important for certain target communities.

The requirement for educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials has been moved to this section from the Illicit Discharge Detection and Elimination section.

Section F.6.b (Specific Requirements) includes requirements for specific target communities, which are in addition to the general requirements. The education and training requirements previously included in other sections of Order No. R9-2004-001 (i.e. Development Planning, Construction, Existing Development) have been removed and consolidated under this section. Specific education requirements are included for: 1) the Copermittees' departments and personnel (i.e. staff and contractors, and Planning Boards and Elected Officials, if applicable), 2) new development / redevelopment and construction sites, 3) commercial and industrial sites/sources, and 4) residential and general public communities.

Section F.6.b.(1) (Copermittee Departments and Personnel) requires the Copermittees to implement an education program for their staff and contractors. Education is required at all levels of municipal staff and contractors. Education is especially important for the staff responsible for planning and development review, oversight, inspection and enforcement of construction activities, selecting and implementing BMPs for Copermittee areas, inspection and enforcement of industrial and commercial facilities, and other Copermittee activities which might result in discharges of pollutants if proper BMPs are not used.

Education of Copermittee departments and personnel may be conducted with joint and/or individual training programs (i.e. on a regional and/or jurisdictional scale), and may include both formal and informal training. The Copermittees may choose the scale and methods for educating their departments and personnel.

The annual training required for construction, building, code enforcement, grading review staffs, inspectors, and other responsible construction staff requires the training to occur annually, prior to the rainy season.

Section F.6.b.(2) (New Development / Redevelopment and Construction Sites) requires the Copermittees to educate parties responsible for a project (i.e. project applicants, developers, contractors, property owners, community planning groups, and other responsible parties) about storm water issues and BMPs. Different levels of training will be needed for planning groups, owners, developers, contractors, and construction workers, but all should get a general education of storm water requirements. Education of all construction workers can prevent unintentional discharges, such as discharges by workers who are not aware that they are not allowed to wash things down the storm drains. Training for BMP installation workers is imperative because the BMPs will fail if not properly installed and maintained. Training for field level workers can be formal or informal tail-gate format.

Section F.6.b.(3) (Commercial and Industrial Sites / Sources) requires the Copermittees to notify the owner/operator of each of their inventoried commercial and industrial sites/sources of the BMP requirements applicable to the site/source at least twice during the five-year period of the Order. Notification of BMP requirements may be fulfilled during the business license application/renewal process and/or during site inspections. Notifying commercial and industrial sites/sources of the BMP requirements will ensure the business owners are aware of the appropriate BMPs to implement that prevent discharges of pollutants from these sites/sources.

Section F.6.b.(4) (Residential and General Public) requires the target audiences for residential and general public communities to include underserved target audiences (e.g., disadvantaged communities), residents and managers of Common Interest Areas / Homeowner Associations, and owners and residents of mobile home parks. These communities are frequently neglected or underserved by most water quality education programs, but can be significant sources of pollutants. Thus, it is important for the residential and general public education programs to reach out to and educate these communities on their potential impacts to water quality.

G. Watershed Water Quality Workplan

The following legal authority applies to section G:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(a)(3)(ii) states: "The Director may [...] issue distinct permits for appropriate categories of discharges [...] including, but not limited to [...] all discharges within a system that discharge to the same watershed [...]"

Federal NPDES regulations 40 CFR 122.26(a)(3)(v) states: "Permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems that are issued on a system-wide, jurisdiction-wide, watershed, or other basis may specify different conditions relating to different discharges covered by the permit, including different management programs for different drainage areas [watersheds] which contribute storm water to the system."

Federal NPDES regulation 40 CFR 122.26(a)(5) states: "The Director may issue permits for municipal separate storm sewers that are designated under paragraph (a)91)(v) of this section on a system-wide basis, a jurisdiction-wide basis, watershed basis, or other appropriate basis."

Federal NPDES regulation 40 CFR 122.26(d)(2)(iv) states: "Proposed programs may impose controls on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls."

Section G requires Copermittees to continue implementation of their watershed runoff management program (WRMP), however the implementation approach has changed. Order No. R9-2004-001 required a Watershed SWMP that included a collaborative strategy to abate the sources and reduce the discharges causing high priority water quality problems. This strategy was to guide each watershed Copermittee's selection and implementation of Watershed Activities, so that the activities selected and implemented would remove that pollutant contribution responsible for the identified high priority water quality problem. Outcomes of these requirements were not able to demonstrate improvements to water quality.

Revised language in Order No. R9-2010-0016 attempts to focus each watershed Copermittee's efforts and resources on addressing the highest water quality problems in the watershed by focusing attention on the health of the receiving water body and the most efficient use of the watershed Copermittee's time and resources. Order No. R9-2010-0016 requires the watershed Copermittees to develop and follow a workplan approach towards assessing receiving water body conditions, prioritizing the highest

priority water quality problems, implementing effective BMPs, and measuring water quality improvement in the receiving water.

Section G.1. (Watershed Workplan Components) requires the watershed Copermittees to develop a workplan that will implement a collective watershed strategy to assess and prioritize the water quality problems, and identify, address, and mitigate the highest priority water quality issues/pollutants within the Upper Santa Margarita watershed's receiving waters. This section specifies the minimum components that must be included in the Watershed Workplan. Development of a workplan rather than watershed activities will allow the Copermittees flexibility to iteratively modify their watershed strategy over the course of future planning years as priorities change.

Section G.2 (Watershed Workplan Implementation) requires the Copermittee's to begin implementing the Watershed Workplan within 90 days of submittal unless otherwise directed by the San Diego Water Board. The Watershed Workplan must meet the requirements of the Order. The San Diego Water Board expects that implementing the Watershed Workplan, which will coordinate the Copermittees' efforts in the watershed, will result in water quality improvements sooner than later. If there are deficiencies in the Watershed Workplan, the San Diego Water Board will provide guidance to remedy those deficiencies as appropriate.

Section G.3 (Copermittee Collaboration) requires the Copermittees to collaborate to develop and implement the Watershed Workplan. Watershed Copermittee collaboration must include frequent regularly scheduled meetings. Because there are several other agencies with MS4s in the Upper Santa Margarita watershed that the Copermittees have indicated in the ROWD are a source of pollutants that may discharge into the MS4 systems of the Copermittees, the Copermittees are also required to pursue interagency agreements, or similar cooperative efforts, with non-Copermittee owners of the MS4 (such as Caltrans, Native American tribes, and school districts) to control the contribution of pollutants from one portion of the shared MS4 to another portion of the shared MS4. In addition, the Copermittees are required, as appropriate, to participate in watershed management efforts to address water quality issues within the entire Santa Margarita Watershed (such as the County of San Diego and United States Marine Corps Camp Pendleton).

Section G.4 (Public Participation) requires the Copermittees to implement a watershed-specific public participation mechanism within each watershed. A required component of the watershed-specific public participation mechanism must be a minimum 30-day public review of the Watershed Workplan. Opportunity for the public to review and comment on the Watershed Workplan must occur before the workplan is implemented.

Section G.5 (Watershed Workplan Review and Updates) requires the Copermittees to review and update the Watershed Workplan annually to identify needed changes to the prioritized water quality problem(s) listed in the workplan. This section requires the Copermittees to review and update their workplan each year to incorporate changing priorities and evolving watershed strategies.

Section G.6 (Pyrethroid Toxicity Reduction Evaluation) requires the Copermittees to incorporate the pyrethroid pollutant reduction program into the Watershed Workplan, as described in the ROWD.

H. Fiscal Analysis

The following legal authority applies to section H:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(vi) provides that “[The Copermittee must submit] for each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs under paragraphs (d)(2)(iii) and (iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.”

Section H has been expanded in order to develop more useful and meaningful fiscal reporting. A revamped fiscal reporting strategy will provide the San Diego Water Board and the Copermittees with better capability to manage performance of the programs.

The Copermittees’ effort is expected to provide standardization of reporting so that figures between Copermittees are comparable, which is one of many types of information which can be used by the San Diego Water Board to better understand Copermittee program implementation. Standardization and comparison of fiscal analysis reporting is supported by the State Water Board funded NPDES Stormwater Cost Survey, which finds that “standards for reporting costs and storm water activities are needed to allow accurate cost comparisons to be made between storm water activities.”²²² This document also provides guidance regarding categorization of expenditures for tracking and reporting.

The Order establishes a criterion for when Copermittees must add narrative evaluations to the tables. This will address some of the variability in reporting and will provide the public and San Diego Water Board with improved understanding of how resources are shifted in response to annual assessments. This will also help ensure that projected annual costs adequately reflect planned program modifications described in the annual reports.

The San Diego Water Board has chosen not to require a description of fiscal benefits realized from implementation of the storm water protection program. This is a recommendation from the National Association of Flood and Stormwater Management

²²² Currier, et al., 2005. *NPDES Storm Water Cost Survey Final Report*. Prepared for California State Water Resources Control Board by Office of Water Programs, California State University, Sacramento. P. 63.

Agencies.²²³ For instance, the current fiscal assessment does not address city-wide fiscal benefits of protection (e.g., public health, tourism, property values, economic activity, beneficial uses, etc.), even though many costs currently reported to the San Diego Water Board are for related activities. This type of assessment may help Copermittees improve the allocation of resources and it may help the Copermittees secure adequate funding for the program. Finally, it will provide a clearer picture of the storm water and non-storm water runoff program to the public and San Diego Water Board. However, qualitative assessments could be overly subjective and most Copermittees likely lack the ability to provide accurate quantitative assessments. The San Diego Water Board encourages Copermittees to consider means for conducting assessments of fiscal benefits derived from the programs. Such assessments could be conducted on a regional scale similar to studies of program costs conducted by the State Water Board.²²⁴

Currently, each Riverside County municipality's annual report includes a table based on a template developed by the principal Copermittee. The template was meant to facilitate reporting consistency among the Copermittees. The annual report table contains estimates of spending during the reported period and estimates of the next year's spending.

Review of the fiscal analysis tables included in the annual reports has not been as straightforward as expected, and the value of the information is moderate. The reviews indicate that cities do not use consistent methods to fill in the tables because they use different accounting and budgeting processes, and certain storm water program expenditures are not easily categorized into the table formats. Furthermore, storm water permit-related activities involve several departments, which makes it difficult for the storm water manager to gather and decipher actual costs.

These issues also make it difficult for the Copermittees to accurately compartmentalize expenditures within the format. As a result, the current financial reporting provides estimates at best and cannot be reliably used to compare program implementation among most municipalities.

²²³ National Association of Flood and Stormwater Management Agencies. 2006. *Guidance for Municipal Stormwater Funding*. Prepared under a grant provided by the USEPA.

²²⁴ State Water Board, 2005. NPDES Stormwater Cost Survey.

I. Total Maximum Daily Loads

The following legal authority applies to section I:

Broad Legal Authority: CWA section 303(d)(1)(A) and (C), and Federal regulations 40 CFR 130.2(i), 40 CFR 130.7(b)(1) and 40 CFR 122.44(d)(1)(vii)(B).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.44(d)(1)(vii)(B) requires that NPDES permit requirements incorporate water quality based effluent limitations that must be consistent with the requirements and assumptions of wasteload allocations (WLAs) assigned to the MS4 as part of the calculated TMDLs.

Section I.1. is a placeholder for the requirements and WLAs assigned to the Copermittees' MS4 discharges of any future TMDLs that are adopted by the San Diego Water Board.

Section I.2 includes, by reference to Santa Ana Water Board Order No. R8-2010-0033, including the relevant sections of the fact sheet and findings (and subsequent revisions), the requirements and WLAs assigned to the MS4s for the Lake Elsinore/Canyon Lake (San Jacinto Watershed) Nutrient TMDLs that are being implemented for the Santa Ana Water Board. Because the San Jacinto Watershed is within the boundaries of the Santa Ana Water Board's region, the Lake Elsinore/Canyon Lake Nutrient TMDLs and its requirements must be implemented by the Cities of Murrieta and Wildomar for the areas within their jurisdictions located in the Santa Ana Region (Region 8).

J. Program Effectiveness Component

The following legal authority applies to section J:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(d)(2)(v) provides that the Copermittees must include “Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water.” Under Federal NPDES regulation 40 CFR 122.42(c) applicants must provide annual reports on the progress of their storm water management programs.

Section J.1 (Program Effectiveness Assessments) of the Order requires the Copermittees to assess the effectiveness of the implementation of their jurisdictional, watershed, and monitoring programs and activities. The Riverside County Storm Water Program is supportive of the CASQA effort, and use of CASQA assessment techniques is consistent with the methodology proposed in the ROWD.^{225,226}

This section requires the Copermittees to establish assessment measures or methods for each of the six outcome levels described by CASQA that will be used to assess the effectiveness of the Jurisdictional Runoff Management Program (JRMP) and Watershed Workplan implementation at (1) reducing the discharge of storm water pollutants from its MS4 to the MEP; (2) prohibit non-storm water discharges; and (3) preventing runoff discharges from the MS4 from causing or contributing to a violation of water quality standards.

The effectiveness assessment measures or methods must be established and included as part of the updated JRMPs and Watershed Workplan that are due on or before June 30, 2012. Beginning with the Annual Report due in 2013, the Copermittees are required to annually perform the assessments using the established assessment measures or methods.

Section J.2 (Respond to Assessments) of the Order requires the Copermittees to improve jurisdictional and watershed activities or BMPs when they are found to be ineffective or when water quality impairments are continuing. This requirement fulfills the purpose of conducting effectiveness assessments – to improve and refine the Copermittees’ programs. The requirement is consistent with USEPA’s Phase II

²²⁵ The Riverside County Copermittees proposed an assessment strategy based on the CASQA Municipal Stormwater Program Effectiveness Assessment Guidance in section 6.1.2.1 of the ROWD.

²²⁶ CASQA 2007. Municipal Stormwater Program Effectiveness Assessment Guidance.

regulations, which state: "If the permittee determines that its original combination of BMPs are not adequate to achieve the objectives of the municipal program, the MS4 should revise its program to implement BMPs that are adequate [...]."²²⁷

Each Copermittee must update the effectiveness assessment work plan and schedule to address any program modifications and improvements in response to the findings of their assessment. The updates to the work plan and schedule must be incorporated into the applicable Annual Report.

Section J.3 (Assessment and Response Reporting) of the Order describes the information required to be submitted in the Annual Report pertaining to program effectiveness assessments, review, and response. A summary of the effectiveness assessments, responses to the effectiveness assessments, and any steps implemented to improve the Copermittee's ability to assess program effectiveness must be included with the Annual Report. The reporting will demonstrate whether Copermittees have appropriately responded to the effectiveness assessments.

²²⁷ Federal Register / Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations. P. 68762.

K. Reporting

The following legal authority applies to section K:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.42(c) requires that “The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer system that has been designated by the director under § 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation.”

CWC section 13267 provides that “the Regional Board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Section K.1 (Runoff Management Plans) outlines the process and due dates for submitting JRMPs and Watershed Workplan. The information to be included in the Jurisdictional and Watershed plans must be sufficient to demonstrate the capacity to implement the requirements of section F and G, respectively, of the Order.

In many cases, the requirements of the Order should not necessitate a complete rewrite of the plans, as was basically done in 2005. Only sections of the Order which are new or have been significantly changed should warrant rewriting of plans' sections. The San Diego Water Board plans to work with the Copermittees and provide guidance regarding where JRMPs and Watershed Workplan must be updated in accordance with the Order. This will help ensure that rewriting, reporting, and review efforts are minimized.

Section K.2 (Other Required Reports and Plans) include requirements for information to be included in the SSMP update, the HMP, and the Report of Waste Discharge (ROWD) for the next permit reissuance. The Order requires submittal of an updated SSMP on or before June 30, 2012; a draft HMP on or before June 30, 2013; and a

ROWD 180 days in advance of the expiration of this Order. The section also identifies the minimum information to be included in the ROWD, based on USEPA's May 17, 1996 guidance "Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems."

Section K.3 (Annual Reports) outlines the process and roles of the Copermittees for developing and submitting the JRMP Annual Report. Information to be included in the Annual Reports is described in section K.3.a.(3).

Each Copermittee is required to maintain records demonstrating that Permit activity requirements have been met, which allows the San Diego Water Board to confirm compliance as needed, such as via inspections, program audits, or requests for information per CWC sections 13225 and 13267.

Reporting requirements in the Order focus on results and responses to the effectiveness assessments conducted by the Copermittees. This will allow the San Diego Water Board to determine how appropriately municipalities adapt and tailor their programs to findings from activities and monitoring results. Assessment of progress toward meeting the objectives is possible because the data collected by the Copermittees under Order No. R9-2004-001 can be used to establish baseline conditions. Compared to activity-based reporting, this will greatly enhance the ability of the San Diego Water Board, Copermittees, and the public to determine whether the programs are successful.

The Order reduces the amount of program activity-based reporting from Order No. R9-2004-001. Under the CASQA assessment model, activity-based reporting includes primarily outcomes that document compliance with permit requirements (Level 1 outcomes), rather than being indicators of the impact of activity implementation.²²⁸ This approach is consistent with guidance from the USEPA, which notes that annual reports should highlight program effectiveness as well as describing activities.²²⁹ This emphasis is also consistent with recommendations from the National Academy of Public Administration in its report to USEPA on Evaluating Environmental Progress, which suggest that reviewing activities data provides limited value when evaluating the effectiveness of programs and resulting environmental conditions.²³⁰

The Order maintains some reporting requirements for certain activity-based outcomes. These are mostly focused on activities that establish or revise municipal processes related to storm water runoff and management. The processes required by the Order are especially important in situations where sustaining water quality improvements may require activities that extend beyond the five-year period of the NPDES permit.

²²⁸ Level 1 outcomes under the CASQA guidance include documentation that required activities have been implemented.

²²⁹ USEPA 2007. *MS4 Program Evaluation Guidance*. USEPA Office of Wastewater Management EPA-833-R-07-003. January 2007 field test version.

²³⁰ National Academy of Public Administration 2001. *Evaluating Environmental Progress: How EPA and the States Can Improve the Quality of Enforcement and Compliance Information* (June 2001). <http://www.napawash.org>

In addition, the Order maintains many activity-based reporting requirements related to enforcement of local requirements, with an emphasis on the results from such activities. This is intended to facilitate review of the contributions that inspection and enforcement activities have made toward meeting the goals of the Order. Reporting of these types of activities is supported by recommendations from the National Academy of Public Administration in its report to the USEPA: *Evaluating Environmental Progress: How EPA and the States Can Improve the Quality of Enforcement and Compliance Information* (June 2001).²³¹ Other activity-based reporting has been reduced to selected items based on consideration of program priorities.

Another source of prioritization for activity-based reporting is the *Storm Water Panel Recommendations to the California State Water Resources Control Board The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities* (June 19, 2006). In particular, the panel highlighted needs to improve the design, maintenance, and inspections of best management practices.

Section K.4 (Interim Reporting Requirements) specifies that the JRMP Annual Reports must be submitted in accordance with the requirements of Order No. R9-2004-001 prior to submittal of the JRMPs required under section K.1a.

²³¹ The National Academy of Public Administration report is available on-line at <http://www.napawash.org>

L. Modification of Programs

The following legal authority applies to section L:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Section L of the Order provides a process for the Copermittees to modify their runoff management programs. This process will be useful so that the Copermittees can continue to refine and improve their programs based on the findings of their annual program effectiveness assessments. The process allows for minor modifications to the Copermittees' programs where the Copermittees can exhibit that the modifications meet or exceed existing legal requirements under the Order. Such a process avoids lengthy and time consuming formal approvals of proposed modifications before the San Diego Water Board, while still ensuring compliance with applicable legal standards and the Order. The process included in the Order is based on a process utilized by the California Regional Water Quality Control Board, San Francisco Bay Region (San Francisco Bay Water Board) in their MS4 permit for Alameda County.²³²

²³² San Francisco Bay Water Board, 2003. Order No. R2-2003-0021. P. 45.

M. Principal Permittee Responsibilities

The following legal authority applies to section M:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.26(a)(3)(iii)(C) provides that "A regional authority may be responsible for submitting a permit application."

Federal NPDES regulation 40 CFR 122.26(d)(2)(i)(D) provides that "[The Copermittee must demonstrate that it can control] through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system."

No significant changes were made to this section.

N. Receiving Waters and MS4 Discharge Monitoring and Reporting Program

The following legal authority applies to section N:

Broad Legal Authority: CWA sections 402, 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iii) and 122.44 require the Copermittees to conduct a comprehensive monitoring program.

See section T of this Fact Sheet/Technical Report for a discussion of changes to the Receiving Waters Monitoring and Reporting Program.

O. Standard Provisions, Reporting Requirements, And Notifications

The following legal authority applies to section O:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Standard provisions, reporting requirements, and notifications are consistent to all NPDES permits and are generally found in Federal NPDES regulation 40 CFR 122.41.

Section O.2 of the Order has been changed to remove the statement that all plans and reports submitted in compliance with the Order are an enforceable part of the Order. This statement has been removed because it is unnecessary. The Order itself contains sufficient detailed requirements to ensure that compliance with discharge prohibitions, receiving water limitations, non-storm water action levels and the narrative standard of MEP for storm water are achieved. Implementation by the Copermittees of programs in compliance with the Order's requirements, prohibitions, and receiving water limitations is the pertinent compliance standard to be used under the Order, as opposed to assessing compliance by reviewing the Copermittees' implementation of their plans alone.

Rather than being substantive components of the Order itself, the Copermittees' management plans are simply descriptions of their runoff management programs required under the Order. These plans serve as procedural correspondence which guides program implementation and aids the Copermittees and San Diego Water Board in tracking implementation of the programs. In this manner, the plans are not functional equivalents of the Order. For these reasons, the Copermittees' runoff management plans need not be an enforceable part of the Order.

P. Attachment A – Basin Plan Prohibitions

The following legal authority applies to Attachment A:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: CWC section 13243 provides that “A regional board, in a water quality control plan or in waste discharge requirements, may specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.”

CWC section 13263(a) provides that waste discharge requirements prescribed by the San Diego Water Board implement the Basin Plan.

No significant changes were made to this attachment.

Q. Attachment B – Standard Provisions

The following legal authority applies to Attachment B:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Specific Legal Authority: Standard provisions, reporting requirements, and notifications are consistent to all NPDES permits and are generally found in Federal NPDES regulation 40 CFR 122.41.

Attachment B includes Standard Provisions which have been developed by the State Water Board. These Standard Provisions ensure that NPDES permits are consistent and compatible with USEPA's federal regulations. Some Standard Provisions sections specific to publicly owned sewage treatment works are not included in Attachment B.

R. Attachment C – Definitions

The following legal authority applies to Attachment C:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv).

Attachment C contains definitions for terms found in the Order. In addition, definitions for terms previously defined in Order No. R9-2004-001 Attachment C, but which are not found in the current Order, have been deleted.

An additional section which includes acronyms and abbreviations has been added. This is to ensure clarity and prevent confusion of terms. Definitions have been added for new terms used in the permit to provide a clear understanding of their meaning and use.

S. Attachment D – Summary of Submittals

The following legal authority applies to Attachment D:

Broad Legal Authority: CWA sections 402(p)(3)(B)(ii-iii), CWC section 13377, 13383, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv) and 122.44(i).

Specific Legal Authority: Federal NPDES regulation 40 CFR 122.42(c) requires that “The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer system that has been designated by the director under § 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation.”

CWC section 13267 provides that “the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires.”

Attachment D to the Order provides a table summary of scheduled submittals required by the Order. Unscheduled submittals are no longer added to the table, since there is no proper due date for such submittals. A task summary has not been created for the Order, since the previous task summary was found to be redundant, repeating information found in the submittal summary and elsewhere in the Order.

A Jurisdictional Runoff Management Program (JRMP) Annual Report Checklist has been added to the reporting requirements. This addition is to determine and ensure that all requirements of the permit are being met. A Jurisdictional Runoff Management Program (JRMP) Annual Report Checklist has been added to the reporting requirements. This addition is to determine and ensure that all requirements of the permit are being met.

T. Attachment E - Receiving Waters and MS4 Discharge Monitoring and Reporting Program

The following legal authority applies to the Receiving Waters and MS4 Discharge Monitoring and Reporting Program:

Broad Legal Authority: CWA sections 402, 402(p)(3)(B)(ii-iii), CWC section 13377, and Federal NPDES regulations 40 CFR 122.26(d)(2)(i)(B, C, E, and F) and 40 CFR 122.26(d)(2)(iv), 122.44 and 122.45.

Specific Legal Authority: Federal NPDES regulations 40 CFR 122.26(d)(2)(iii) requires the Copermittees to conduct a comprehensive monitoring program.

Federal NPDES regulation 40 CFR 122.42(c) requires that "The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer system that has been designated by the director under § 122.26(a)(1)(v) of this part must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include: (1) The status of implementing the components of the storm water management program that are established as permit conditions; (2) Proposed changes to the storm water management program that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under § 122.26(d)(2)(iv) and (d)(2)(v) of this part; (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year; (5) Annual expenditures and budget for year following each annual report; (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; (7) Identification of water quality improvements or degradation."

CWC section 13267 provides that "the regional board may require than any person who has discharged [...] shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires."

I. Purpose

According to USEPA, the benefits of sampling data include, but are not limited to:

1. Providing a means for evaluating the environmental risk of storm water discharges by identifying types and amounts of pollutants present;
2. Determining the relative potential for storm water discharges to contribute to water quality impacts or water quality standard violations;
3. Identifying potential sources of pollutants; and

4. Eliminating or controlling identified sources more specifically through permit conditions.²³³

Equally important, monitoring programs are an essential link in the improvement of storm water management efforts. Data collected from monitoring programs can be assessed to determine the effectiveness of management programs and practices, which is vital for the success of the iterative approach used to meet the MEP standard for storm water. When water quality data indicate that water quality standards or objectives are being exceeded, particular pollutants, sources, and drainage areas can be identified and targeted for specific management efforts. When data indicate that a particular BMP or program component is not effective, improved efforts can be selected and implemented.

Considering the benefits described above, the Receiving Waters Monitoring and Reporting Program (MRP) has been designed to determine impacts to receiving water quality and beneficial uses from storm water runoff and to use the results to refine the Copermittees' storm water runoff management programs for the reduction of storm water pollutant loadings to the MEP. For non-storm water discharges, monitoring has been designed to identify and eliminate prohibited illicit discharges and to determine appropriate actions to take in response to dry weather non-storm water action levels. Additionally, the results from dry weather non-storm water monitoring can be used to evaluate exempted non-storm water discharges as a source or conveyance of pollutants. The primary goals of the MRP include:

1. Assess compliance with Order No. R9-2010-0016;
2. Measure and improve the effectiveness of the Copermittees' runoff management programs;
3. Assess the chemical, physical, and biological impacts of receiving waters from MS4 discharges;
4. Characterize storm water runoff discharges;
5. Identify sources of specific pollutants;
6. Prioritize drainage and sub-drainage areas that need management actions;
7. Detect and eliminate illicit discharges and illicit connections to the MS4;
8. Assess the overall health of receiving waters; and
9. Provide information to implement required BMP improvements

Each of the components of the MRP is necessary to meet the objectives listed above. In addition, the MRP has been designed in accordance with the guidance provided by the Southern California Stormwater Monitoring Coalition's Model Monitoring Technical Committee in its August 2004 "Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California." This guidance document was developed in response to Senate Bill 72 (Kuehl), which addressed the standardization of sampling and analysis protocols in municipal storm water monitoring programs. The technical committee which developed the guidance included representatives from

²³³ USEPA, 1992. NPDES Storm Water Sampling Guidance Document. EPA/833-B-92-001.

Southern California Regional Water Boards (including the San Diego Water Board), municipal storm water Copermittees (including Riverside County Flood Control District), Heal the Bay, and the Southern California Coastal Water Research Project.

As its title suggests, the guidance essentially developed a model municipal storm water monitoring program for use in Southern California. The model program is structured around five fundamental management questions, outlined below. The MRP is designed as an iterative step towards ensuring that the Copermittees' monitoring program can fully answer each of the five management questions.

1. Are conditions in receiving waters protective, or likely to be protective, of beneficial uses?
2. What is the extent and magnitude of the current or potential receiving water problems?
3. What is the relative storm water runoff contribution to the receiving water problem(s)?
4. What are the sources of storm water runoff that contribute to receiving water problem(s)?
5. Are conditions in receiving waters getting better or worse?

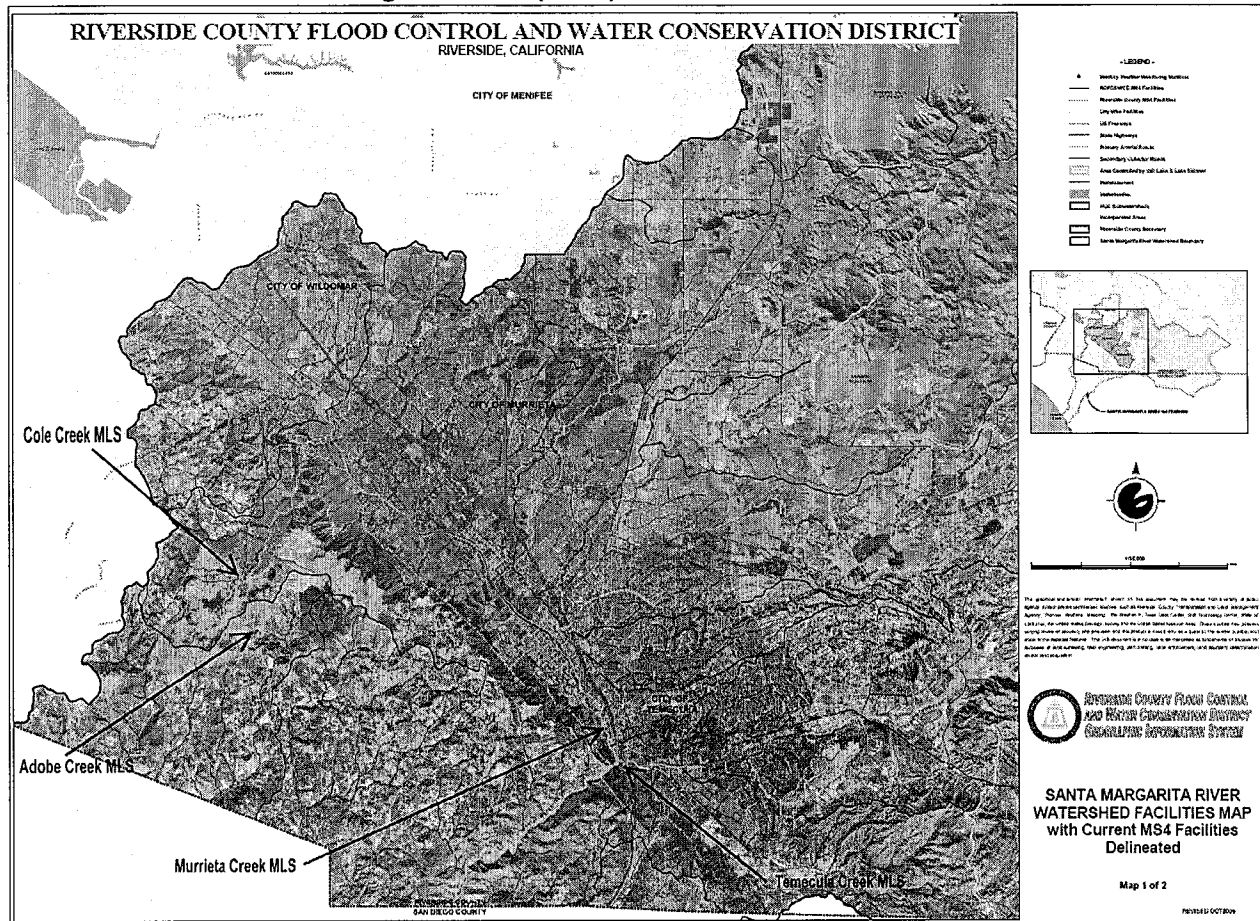
The three MS4 NPDES permits within San Diego Water Board jurisdiction each have very similar core monitoring requirements that include receiving water monitoring, effluent monitoring, and special studies (see Finding E.12 and Discussion). The justifications for each component of the monitoring program are discussed below.

II. Monitoring Program

The Monitoring Program has been organized into distinct sections and includes receiving water monitoring, MS4 effluent monitoring, a monitoring program in high priority inland aquatic habitat, and special studies. Each monitoring program is expected to answer specific questions and achieve goals outlined in section I. Some of these questions require the linkage of both receiving water monitoring and MS4 discharge monitoring that is required in the Order. As such, the Monitoring Program has been written to allow the Copermittees to utilize the same data and/or sampling effort where monitoring requirements overlap. For example, the Copermittees may elect to develop a Trash Special Study where the sampling is done at the same location and time as stream assessment monitoring. The Copermittees may evaluate the goals and questions of the Monitoring Program when evaluating how required monitoring programs may overlap.

Section II.A.1 (Mass Loading Station Monitoring) of the MRP requires mass loading and toxicity monitoring at monitoring stations located at the bottom of the Riverside County portion of the Santa Margarita watershed (see figure below).

Locations of Mass Loading Stations (MLS) under Order No. R9-2004-0001



The intent of current mass loading monitoring as conducted by the Copermitees under Order No. R9-2004-001 is to use water chemistry data from storm events and dry weather flows to calculate pollutant loads and to assess water quality with respect to applicable acute and chronic toxicity criteria from the California Toxics Rule (CTR) and bioassessment as part of the triad monitoring approach.²³⁴ The mass loading monitoring that is required by the Order will provide data representing event mean concentrations of pollutants, total pollutant loadings, and toxicity conditions from specific drainage areas. Mass loading monitoring stations are recommended by the Model Monitoring Technical Committee in order to answer management questions 1, 2, and 5.²³⁵ The stations are also expected to contribute towards meeting MRP goals

²³⁴ Riverside County Copermitees. 2009. Report of Waste Discharge, section 6.4 .

²³⁵ Model Monitoring Technical Committee, 2004. Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California. Chapter 5.

1, 2, 3, 4, 6, and 8. The locations of the mass loading monitoring stations are not changed from Order No. R9-2004-001. The MRP, however, retains flexibility to allow the Copermittees to propose changing the location of a mass loading station. The Copermittees may also propose additional mass loading stations should they determine more are needed. The Copermittees will identify a permanent mass loading reference station for the permit term.

Some revisions to the required list of constituents to be monitored at mass loading stations have been made. The changes are made to be compatible with the federal NPDES regulations and in response to data collected during the current permit term. Audits of the Copermittees' monitoring program and reviews of annual reports during the last permit term have found consistent shortcomings in the Copermittees' monitoring programs. As a result, some changes have been made to the monitoring requirements. The changes include:

1. All events must now include: Biological Oxygen Demand, 5-day Chemical Oxygen Demand, Total Organic Carbon, Dissolved Organic Carbon. These are specifically required by 40 CFR 122.26(d)(2)(iii)(A) and (B), but were omitted from collection and reporting required by Order No. R9-2004-001.
2. Carbamate and Pyrethroid pesticides must be monitored. Pyrethroid pesticides were identified from TIEs conducted in response to toxicity observed during sampling as part of the triad approach at Temecula and Murrieta Creek. Long term monitoring of pesticide presence is critical to evaluate Copermittees BMP efforts and program effectiveness. Carbamate pesticides are utilized in residential, agricultural and commercial applications, and have been shown to have negative direct and indirect impacts on aquatic invertebrates and vertebrates, as well as associated riparian species.²³⁶ In addition, the National Marine Fisheries Service (NMFS) issued a Biological Opinion in 2009 that concluded pesticide products containing carbaryl and carbofuran are likely to jeopardize 22 listed salmonids, including Southern California Steelhead.²³⁷
3. Impaired water body pollutants. Specific pollutants have been added in response to the U.S. Environmental Protection Agency approval of California's 2004-2006 and the San Diego Water Board approval of the 2008 303(d) List.

²³⁶ See:

Boone and James. 2003. Interactions of an insecticide, herbicide, and natural stressors in amphibian community mesocosms. *Ecological Applications*: 13(3) pp. 829-841.

Hanazato. 2001. Pesticide effects on freshwater zooplankton: an ecological perspective. *Environmental Pollution*: 112 pp. 1-10.

USGS. 1999. Field Manual of Wildlife Diseases: General Field Procedures and Diseases of Birds. Chapter 39. California Department of Pesticide Regulation. 2010. Urban Pesticide Monitoring in Northern and Southern California. <http://www.cdpr.ca.gov/docs/emon/surfwttr/presentations.htm>

²³⁷ NMFS. 2009. Endangered Species Act Section 7 Consultation Biological Opinion: Environmental Protection Agency Registration of Pesticides Containing Carbaryl, Carbofuran, and Methomyl.

4. A requirement to collect a grab sample for total petroleum hydrocarbons whenever a sheen is observed has been added based upon results from IC/ID programs in existing southern California NPDES MS4 permits.
5. The required organisms for toxicity testing have changed from the previous order to be consistent with USEPA guidance.²³⁸ *Ceriodaphnia dubia* (water flea) has been replaced with *Pimephales promelas* (fathead minnow) to provide at least three test species from different phyla. *Hyalella azteca* has been retained as a test organism due to sensitivity to pyrethroid pesticides.
6. A constituent-specific table has been added to provide clarity to the list of pollutants that are required to be monitored as part of the triad approach.
7. More prescriptive reporting requirements have been added in the event the Copermittees fail to monitor the required number of mass loading events.

Section II.A.2 (Stream Assessment Monitoring) of the MRP requires the Copermittees to conduct bioassessment monitoring using a multiple lines of evidence approach which includes collection of benthic macroinvertebrates and algae, a full physical habitat assessment, water chemistry sampling, and toxicity testing. Bioassessment monitoring is a cost-effective tool that measures the effects of water quality over time.²³⁹ It is an important indicator of stream health and impacts from storm water and non-storm water runoff. It can detect impacts that chemical and toxicity monitoring alone cannot. USEPA encourages permitting authorities to consider requiring biological monitoring methods in conjunction with chemical and toxicity testing to fully characterize the nature and extent of impacts from runoff.²⁴⁰ Therefore, the San Diego Water Board commonly requires bioassessment monitoring in MS4 and other types of discharge permits.

Bioassessment is the direct measurement of the biological, chemical, and physical condition, and attainment of beneficial uses of receiving waters (typically using benthic macroinvertebrates, periphyton, and fish). Bioassessment monitoring integrates the effects of both water chemistry (including toxicity) and physical habitat impacts (e.g., sedimentation or erosion) of various discharges on the biological community native to the receiving waters. Moreover, bioassessment is a direct measurement of the impact of cumulative, sub-lethal doses of pollutants that may be below reasonable water chemistry detection limits, but that still have biological affects.

Because bioassessment focuses on communities of living organisms as integrators of cumulative impacts resulting from water quality or habitat degradation, it defines the ecological risks resulting from storm water and non-storm water MS4 runoff.

²³⁸ USEPA, 1991. Technical Support Document for Water Quality Based Toxics Control. EPA 505-2-90-001.

²³⁹ California Department of Fish and Game, 2002. California Regional Water Quality Control Board, San Diego Region 2002 Biological Assessment Report: Results of May 2001 Reference Site Study and Preliminary Index of Biotic Integrity.

²⁴⁰ USEPA, 1999. Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers. EPA 841-B-99-002. P. 2-5.

Bioassessment not only identifies that an impact has occurred, but also measures the effect of the impact and tracks recovery when control or restoration measures have been taken. These features make bioassessment a powerful tool to assess compliance, evaluate the effectiveness of BMPs, and to track both short and long-term trends (MRP goals 1, 2, 3, and 8). Bioassessment can also help answer management questions 1, 2, and 5.

The Order also identifies the most current established protocol to be used in identifying bioassessment reference stations. The protocol referenced in the Order is specified because it provides a qualitative and repeatable method for identifying reference sites. Moreover, the protocol is well established, since it has been peer reviewed and published.

The Order includes four significant modifications to the bioassessment monitoring required under Order No. R9-2004-001. These changes include:

1. Bioassessment monitoring must be consistent with the State Water Board's Surface Water Ambient Monitoring Program (SWAMP) Standard Operating Procedures (SOP) as amended.²⁴¹
2. Bioassessment monitoring is to include an assessment of periphyton (algae).²⁴² Advantages of bioassessment using periphyton include: (1) they have rapid reproduction rates and very short life cycles, making them valuable indicators of short-term impacts; (2) as primary producers, they are most directly affected by physical and chemical factors; (3) sampling is easy and inexpensive; and (4) algal assemblages are sensitive to some pollutants which may not visibly affect other aquatic assemblages.²⁴³ Future bioassessment must use algal IBI scores, when developed.
3. The number of bioassessment stations has been increased from three to six. The Copermittees currently conduct bioassessment monitoring at one reference station and at the two mass loading stations at Temecula and Murrieta Creek. The increase in required sampling is needed to evaluate more localized impacts higher in the Santa Margarita Hydrologic Unit (HU) in conjunction with SAL and NAL monitoring, as well as to evaluate any impacts that occur from hydromodification. The additional required reference station will aid in detecting any differences in bioassessment scores over time that may be independent of MS4 discharges.
4. The bioassessment section title has been changed to Stream Assessment Monitoring. This was done to prevent confusion by the Copermittees in

²⁴¹ SWAMP February 2007 (amended September 2008). Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California

²⁴² SWAMP June 2009. Standard Operating Procedures for Collecting Stream Algae Samples and Associated Physical Habitat and Chemical Data for Ambient Bioassessments in California.

²⁴³ USEPA, 1999. Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers. EPA 841-B-99-002. P. 3-3.

understanding sampling differences between mass loading stations and bioassessment sites. Under Order No. 2004-0001 all bioassessment sites were co-located with mass loading stations. Thus, the collection of water chemistry and toxicity data was done simultaneously for mass loading and bioassessment purposes, which prevented duplicative water chemistry and toxicity testing. For new "Stream Assessment Monitoring" sites not located at mass loading stations, the nomenclature for monitoring has been changed to prevent possible misinterpretation of the term "bioassessment" to mean only the collection of benthic macroinvertebrates and physical habitat data.

Section II.A.3 (Follow-up Analysis and Actions) of the MRP requires the Copermittees to use the results of the receiving water monitoring to determine if impacts from MS4 discharges are occurring and when follow-up actions are necessary. The triad approach allows a wide range of measurements to be combined to more efficiently identify pollutants, their sources, and appropriate follow-up actions. Results from the three types of monitoring must be assessed to evaluate the extent and causes of pollution in receiving waters and to prioritize management actions to eliminate or reduce the sources. The framework provided is to be used to determine conclusions from the data and appropriate follow-up actions. The framework is proposed by the Copermittees and derived from the Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California.²⁴⁴ These follow-up actions are expected to primarily help answer management questions 2 and 4, as well as address MRP goals 2, 4, 5, 6 and 7.

When, based on the framework in Table 3 of the MRP, data indicates the presence of toxic pollutants in runoff, the Copermittees are required to conduct a Toxicity Identification Evaluation (TIE). A TIE is a set of procedures used to identify the specific chemical(s) responsible for toxicity to aquatic organisms. When discharges are toxic to a test organism, a TIE must be conducted to confirm potential constituents of concern and rule out others, therefore allowing Copermittees to determine and prioritize appropriate management actions. If a sample is toxic to more than one species, it is necessary to determine the toxicant(s) affecting each species. If the type and source of pollutants can be identified based on the data alone and an analysis of potential sources in the drainage area, a TIE is not necessary.

When a TIE identifies a pollutant associated with MS4 discharge as a cause of toxicity, it is then necessary to conduct follow-up actions to identify the causative agents of toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. Follow-up actions should analyze all potential source(s) causing toxicity, potential BMPs to eliminate or reduce the pollutants causing toxicity, and suggested monitoring to demonstrate that toxicity has been removed.

²⁴⁴ Model Monitoring Technical Committee, 2004. Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California. P. 5-61.

Section II.A.4 (Regional Monitoring Programs) of the MRP identifies that the San Diego Water Board recognizes the importance of regional monitoring efforts to answer monitoring questions and/or address problems that may not be specific to only the Santa Margarita hydrologic unit (see Finding E.12 and Discussion). Additionally, the Copermittees' jurisdiction does not encompass the entire Santa Margarita hydrologic unit, as portions of the hydrologic unit include, but are not limited to, San Diego County, tribal lands, the Cleveland National Forest, and Marine Corps Base at Camp Pendleton.

Section II.B (Wet Weather MS4 Discharge Monitoring) of the MRP requires the Copermittees to develop and implement a program, in accordance with 40 CFR 122.26(d)(2)(iii), to monitor and characterize pollutants in discharges of storm water effluent from major MS4 outfalls. Currently the Copermittees do not monitor the discharge of storm water from the MS4 outfalls. As a result, a substantial amount of information regarding the quality of MS4 effluent is unknown, and in-stream stations monitored under R9-2004-001 have not accurately characterized MS4 effluent data during the permit term.²⁴⁵ The collection of wet-weather MS4 effluent data will enable the Copermittees to assess the effectiveness of existing storm water BMP measures, estimate cumulative annual pollutant loads from MS4 storm water discharges, and estimate seasonal pollutant loads from individual major outfalls. This data can be used to more effectively target storm water management program efforts. The MRP also requires compliance with section D of the Order for Storm Water Action Levels.

The monitoring of outfalls is expected to be used to identify storm drains that are discharging pollutants in concentrations that may pose a threat to receiving waters. Source investigations are expected to be conducted as a response to the data. The Copermittees are required to monitor for those pollutants in 40CFR 122.26(d)(2)(iii)(B); for 303(d) listed pollutants for the Santa Margarita Hydrologic Unit; and for pollutants with Storm Water Action Levels.

The MRP provides the Copermittees great flexibility in assigning stations and sampling frequency for wet-weather monitoring. Copermittees are to propose the number and frequency of monitoring stations, thus proposing the overall cost of their program. The San Diego Water Board will review the proposed program to ensure it will comply with Federal regulations and section D of the Order for Storm Water Action Levels.

The monitoring requirements also include a requirement to measure receiving water hardness when comparing storm water MS4 discharge data to Storm Water Action Levels for priority pollutants (e.g. metals). The effect of these constituents upon receiving waters will vary depending upon the hardness of receiving waters.

Section II.B.2 (Source Identification Monitoring) requires the Copermittees to develop and implement a program to identify sources of discharges of pollutants causing the high priority water quality problems within each hydrologic subarea. The current

²⁴⁵ Riverside County Copermittees. 2009. Report of Waste Discharge, section 5.1.

source identification monitoring program conducted by the Copermittees has not been demonstrated to be effective due to the continued receiving water monitoring that documents persistent exceedances of water quality objectives for 303(d) listed pollutants, as well as the listing of new water bodies and pollutants (see Finding C.7). Furthermore, all monitoring conducted under Order R9-2004-001 focused on receiving water conditions rather than MS4 effluent discharges. Outside of required toxicity identification and reduction evaluations, little to no source identification was conducted for observed exceedances of water quality standards in receiving waters.

Identification of sources causing high priority water quality problems is a central purpose of storm water runoff management programs. Monitoring which enables the Copermittees to identify sources of water quality problems aids the Copermittees in focusing their management efforts, improving their programs and choosing additional and/or better BMPs. In turn, the Copermittees' programs can abate identified sources, which will improve the quality of storm water runoff discharges and receiving waters. This monitoring is needed to address management questions 3 and 4, in addition to ensuring that pollutants in storm water discharges from the MS4 are reduced to the MEP. Moreover, in its review of the San Diego County Copermittees' monitoring proposal, Tetra Tech, Inc. finds that "after some years of assessment monitoring, it is time to look more systematically at determining the relative urban contributions and the sources of urban runoff that contribute to identified receiving water problems."²⁴⁶

Section II.C (Non-Storm Water Dry Weather Action Levels) of the MRP describes the monitoring to be conducted by the Copermittees to determine compliance with dry weather, non-storm water action levels.

The section for Dry Weather Non-Storm Water Action Level Monitoring has taken the place of Illicit Discharge Detection and Elimination Monitoring under the previous Order. This change is required to assess compliance with action levels for non-storm water discharges from the MS4 into receiving waters while the Copermittees simultaneously conduct Illicit Discharge Detection and Elimination activities. The prior Order did not require the testing of non-storm water MS4 effluent prior to discharge into receiving waters, and thus Illicit Discharge Detection and Elimination Monitoring was conducted in receiving waters that were technically considered part of the MS4 but did not necessarily contain solely MS4 effluent. Discussions between the San Diego Water Board and Copermittees identified this shortcoming, which is reflected in the Copermittees Annual Reports (2007-08 and 2008-09), and the Copermittees have requested the point of monitoring for non-storm water be changed to sample MS4 effluent.²⁴⁷ The required sampling frequency has great flexibility and allows Copermittees to sample a representative number of discharge points while the sampling methodology continues to be grab sampling. Additionally, the selection of representative outfalls or other identified stations has been clarified to ensure that those selected are consistent with federal requirements under 40 CFR 122.26(d) and section C of the Order.

²⁴⁶ Tetra Tech Inc., 2006. Review of San Diego County MS4 Monitoring Program.

²⁴⁷ Riverside County Copermittees ROWD, January 2009. Section 7.8.2.

Section II.C.2 (Source Identification Monitoring) requires the Copermittees to develop and implement a program to identify the sources of pollutants in non-storm water discharges. The section provides clarification that the program must utilize action levels pursuant to section C of the Order as a source identification response criteria. The source identification monitoring program is required under sections C, F.4.d, and F.4.e of the Order and to comply with 40 CFR 122.26(d)(2)(iv)(B), which requires the Copermittees have a program to detect and remove illicit discharges into the MS4.

Section II.D (High Priority Inland Aquatic Habitat) of the MRP describes required monitoring to be done in order to assess if MS4 storm water and/or non-storm water discharges are affecting high priority aquatic and/or riparian species. The existing monitoring program does almost all monitoring at or near mass loading stations, which are located at and below the confluence of multiple major hydrologic subareas. While this approach may estimate cumulative loadings and impacts from entire hydrologic areas, it provides little information regarding localized impacts to receiving waters subject to MS4 discharges, especially for high priority habitats. This approach is also recommended by the Southern California Stormwater Monitoring Coalition's Model Monitoring Technical Committee as an integral part of a storm water monitoring program. The Model Monitoring Technical Committee, which includes a member from RCFCD, recommends the use of "site-specific stations focused on the status of high-priority inland habitats of concern, with monitoring based primarily on the Triad approach for dry weather sampling and on chemistry and toxicity for wet weather."²⁴⁸

The monitoring of MS4 discharges into high-priority inland habitats is of special importance to the species which rely on the habitat subject to the discharge. The Santa Margarita River, and its tributaries, has been designated with BIOL, WARM, COLD, RARE and WILD beneficial uses, in part due to the presence of threatened and endangered species.²⁴⁹ Portions of the Santa Margarita HU also include areas designated as critical habitat by state and Federal agencies. Federal and State threatened and endangered species are particularly susceptible to negative direct and indirect effects of MS4 discharges because the habitat available to them has already been reduced, restricted, and/or degraded, and their populations have already been reduced to low levels.²⁵⁰ Therefore, short-term or chronic degradation of habitat or exposure to pollutants caused by MS4 discharges results in a proportionally high level of negative impact to already impacted beneficial uses. Threatened or endangered species with reduced habitat availability may be restricted from avoiding pollutants associated with MS4 discharges,²⁵¹ and any reproductive impacts from pollutants would likely have significant negative effects on already low population sizes.

²⁴⁸ Model Monitoring Technical Committee, 2004. Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California.

²⁴⁹ See Federal Register 50 CFR 71.11 and the California Code of Regulations, Title 14 Section 670.5.

²⁵⁰ Carroll, R., Augspurger, C., Dobson, A., Franklin, J., Orians, G., Reid, W., Tracy, R., Wilcove, D. and J. Wilson. 1996. Strengthening the use of science in achieving the goals of the Endangered Species Act: An Assessment by the Ecological Society of America. *Ecological Applications*. 6(1) pp. 1-11.

²⁵¹ For example, see National Marine Fisheries Service Draft Southern Steelhead Recovery Plan, July 2009.

Information regarding the extent of environmentally-sensitive habitats is available from sources familiar to the Copermittees.²⁵² Examples include the Western Riverside Multiple Species Habitat Conservation Plan, Santa Margarita HU assessments conducted by the U.S. Army Corps of Engineers, and California Department of Fish and Game Ecological Reserves. Therefore, a relatively small level of effort will be required to collect information to determine high priority inland aquatic habitats. In addition, the Copermittees already are required to have updated inventories of inland MS4 outfall locations. As a result, a monitoring plan can be developed within 36 months to address the new requirement.

Section II.E.2 (Sediment Toxicity Study) includes a requirement that the Copermittees conduct a sediment toxicity special study. This study has been added to the Monitoring and Reporting requirements to assess the quality of stream sediments and possible contamination due to runoff from the MS4. Toxicity tests focusing on aqueous toxicity may not account for the full toxicity of receiving waters if constituents, such as heavy metals or pesticides, are bound to sediments. Southern California studies have shown that stream sediments can exhibit significant levels of toxic metals and pesticides, including pyrethroids.^{253,254} Additionally, the Copermittees have identified the presence of aqueous toxicity at both mass loading stations due to pyrethroid pesticides, but their presence in sediments is unknown.

Section II.E.3 (Trash and Litter Investigation) includes a requirement that the Copermittees conduct a Trash and Litter Investigation (see Finding C.8 and Discussion). The objective of the study is to evaluate the quantity, type, and source(s) of trash and litter in receiving waters (see Finding E.12 and Discussion regarding regional efforts). Although trash can impair beneficial uses, the amount and type of trash discharged into receiving waters from the Copermittee(s) MS4 is unknown. Thus, the Copermittees have largely been unable to assess the effectiveness of their BMPs that target trash as a pollutant. The special study requires the Copermittees to utilize previously developed protocols to determine the source of trash and litter in receiving waters, assess BMP effectiveness, and implement additional BMPs if needed according to the requirements of the Order. Qualitative and quantitative protocols for trash assessment have already been developed for San Diego County and the San Francisco Bay Region. These protocols are required to be used in the development of the special study, are expected to reduce Copermittee costs, and promote regional consistency in trash and litter assessments.

Section II.E.4 (Agricultural, Federal and Tribal Input Study) includes a requirement for the Copermittees to draft and subsequently conduct a special study to determine the water quality of storm water flows which are entering their MS4 from agricultural,

²⁵² See Riverside County Copermittees ROWD, January 2009. Section 4.3.3.

²⁵³ Holmes, R.W., Anderson, B.S., Phillips, B.M., Hunt, J.W., Crane, D.B., Mekebr, A. and V. Connor. 2008. Statewide Investigation of the Role of Pyrethroid Pesticides in Sediment Toxicity in California's Urban Waterways. *Environmental Science Technology* 42: 7003-7009.

²⁵⁴ Crane, D.B. and C. Youngmans-Haug. 1992. Oxadiazon residue concentrations in sediment, fish, and shellfish from a combined residential/agricultural area in Southern California. *Bulletin of Environmental Contamination and Toxicology*. Volume 48, no. 4.

federal and tribal areas. The objective of the study is to determine the type, quantity and estimated loading of pollutants in these discharges. In the ROWD, the Copermittees specifically state their concern regarding the quality of storm water which is discharged into their MS4 from such areas, and state that these discharges may affect overall water quality, primarily in the Murrieta and Temecula Creek watersheds.²⁵⁵ However, no data, information, or analyses were presented or identified on the level of pollutants in such flows into their MS4. The special study has been designed with sampling frequency and parameter requirements that lend flexibility to the Copermittees. The minimum requirements are limited to grab samples for pollutants expected to be present in storm water discharges and at a number of representative sites chosen by the Copermittees. The special study requires testing to be source specific (e.g. only sampling discharge into from one of the three sources) and does not allow for sampling to be done on co-mingled flows within the MS4. Additionally, the Copermittees may elect to conduct composite sampling, toxicity testing, more targeted sites, or a combination thereof.

Section II.E.5 (MS4 and Receiving Water Maintenance Study) includes a requirement that the Copermittees investigate impacts to Beneficial Uses from routine removal of vegetation from portions of the MS4 that are also receiving waters (see Finding D.3.c and Discussion). The objective of the study is to determine if there are short-term or long-term in-stream water quality impacts from maintenance activities and to assess if the activities exacerbate the impairment of receiving waters 303(d) listed as impaired wholly or partially from MS4 discharges. Receiving waters within the Copermittees jurisdiction have been routinely cleared of vegetation by the Copermittees as part of their MS4 maintenance programs without mitigation efforts. The in-stream modification of vegetation may result in changes in water quality and Beneficial Uses from changes in nutrient cycling, the storage of organic matter, infiltration, flow attenuation, temperature and erosion potential.^{256,257,258} The relative contribution, if any, of maintenance activities to CWA 303(d) water quality impairments is unknown. The program is also expected to work in conjunction with other permit requirements of the Order. For example, the Copermittees may choose to utilize study results when implementing the HMP, LID, and retrofitting programs.

Section II.E.6 (Intermittent and Ephemeral Stream Perennial Conversion Study) includes a study to assess specifically exempted non-storm water discharges²⁵⁹ into surface waters and discharges into MS4s covered under a separate NPDES permit in order to determine if the exempted discharges and/or separate NPDES discharges to the MS4 are causing or contributing to a condition of pollution, contamination or nuisance. For ephemeral and intermittent inland surface waters, modification of flows

²⁵⁵ Riverside County Copermittees ROWD, January 2009. Sections 3.2 and 3.3.

²⁵⁶ Fischenich, J.C. and R.R. Copeland. 2001. Environmental Considerations for Vegetation in Flood Control Channels. US Army Corps of Engineers.

²⁵⁷ Shade et al. 2005. Hydrologic exchange and N uptake by riparian vegetation in an arid-land stream. *Journal of North American Benthological Society*. 24(1):19-28.

²⁵⁸ Warner, R.E. and K.M. Hendrix. 1984. California Riparian Systems: Ecology, Conservation, and Productive Management. pp. 160-189. University of California Press.

²⁵⁹ See Finding C.15 of the Order for discussion of exempted non-storm water discharges.

may impact beneficial uses through modification of in-stream ecology including, but not limited to, sediment transport, biogeochemical functioning, water temperature, non-native species presence and exclusion of native species.^{260,261} The objective of the study is to determine if the alteration of natural in-stream hydrologic regimes from intermittent or ephemeral to perennial due to exempted non-storm water discharges has modified the beneficial uses of the receiving water. The evaluation includes both qualitative and quantitative measurements of parameters which will help the Copermittees determine if exempted discharges and/or separate NPDES discharges into the MS4 are causing a condition of pollution, contamination, or nuisance. Such a determination would potentially require an action to be taken by the Copermittee(s) (i.e. prohibition of an exempted discharge), permit modification for a separate NPDES permit, and/or an action by the San Diego Water Board.

Section II.F (Monitoring Provisions) of the MRP includes monitoring provisions which are standard requirements for all municipal storm water permits.

III. Reporting Program

Section III of the MRP discusses submittal of the Planned Monitoring Program, the Receiving Waters and MS4 Discharge Monitoring Annual Reports, and Interim Reporting Requirements. For the purposes of Receiving Waters and MS4 Discharge Monitoring and Reporting Program, required reviews and approvals by the San Diego Water Board of draft monitoring plans, proposals or protocols shall be conducted by the San Diego Water Board Executive Officer.

Section III.C (Table of Reporting Requirements) has been added to the MRP to provide a quick reference for all required reporting dates found in the MRP

²⁶⁰ Naiman, R.J., Bunn, S.E., Nilsson, C., Petts, G.E., Pinay, G., and L.C. Thompson. 2002. Legitimizing Fluvial Ecosystems as Users of Water: An Overview. *Environmental Management*: 30(4) pp. 455-467.

²⁶¹ Marchetti, M.P., Light, T., Moyle, P.B. and J.H. Viers. 2004. Fish Invasions in California Watersheds: Testing Hypotheses Using Landscape Patterns. *Ecological Applications*. 14(5) pp. 1507-1525.

U. Attachment F - Source Data

Attachment F contains data utilized for the development of Storm Water Action Levels and Non-storm Water Action Levels.

Tab 2

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
ORDER NO. R9-2004-001
NPDES NO. CAS0108766
WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGES OF URBAN RUNOFF FROM
THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
DRAINING THE COUNTY OF RIVERSIDE,
THE CITY OF MURRIETA, THE CITY OF TEMECULA AND THE
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION
DISTRICT WITHIN THE SAN DIEGO REGION**

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MONITORING AND REPORTING PROGRAM No. R9-2004-001

FINDINGS

The California Regional Water Quality Control Board, San Diego Region (hereinafter SDRWQCB), finds that:

1. The Riverside County Flood Control and Water Conservation District (District), the County of Riverside and the Cities of Murrieta and Temecula (hereinafter called Permittees), own or operate municipal separate storm sewer systems (MS4s), through which urban runoff is discharged into waters of the United States (U.S.) within the Santa Margarita Watershed area of Riverside County in the San Diego Region (hereinafter referred to as the Upper Santa Margarita Watershed).
2. The SDRWQCB has previously issued two MS4 permits for the Upper Santa Margarita Watershed. The first-round MS4 permit was issued on July 16, 1990, and the second-round MS4 permit was issued on May 13, 1998 (Order No. R9-98-02). On May 26, 1998, the United States Environmental Protection Agency (EPA), Region IX, objected to Order No. 98-02 due to concerns regarding the Receiving Water Limitations (RWL) language. The EPA concluded that the RWL language in the permit did not comply with the federal Clean Water Act (CWA) and its implementing regulations. On April 27, 1999, the EPA reissued the MS4 permit, which the SDRWQCB adopted as Addendum No. 1 to Order No. R9-98-02 on November 8, 2000. On May 30, 2003 and in accordance with Order No. R9-98-02, the District, as the Principal Permittee, submitted a Report of Waste Discharge (ROWD) for renewal of their MS4 Permit.
3. The Water Quality Control Plan for the San Diego Basin (Basin Plan), identifies the following beneficial uses for water bodies in the Santa Margarita Watershed: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PROC), Industrial Service Supply (IND), Ground Water Recharge (GWR), Contact Water Recreation (REC1) (potential use), Non-contact Water Recreation (REC2), Warm Freshwater Habitat WARM, Cold Freshwater Habitat (COLD), Wildlife Habitat (WILD), and Rare, Threatened, or Endangered Species (RARE).
4. Urban runoff contains waste, as defined in the California Water Code (CWC), and pollutants that adversely affect the quality of the waters of the State. The discharge of urban runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the U.S. as defined in the CWA.
5. The most common categories of pollutants in urban runoff include total suspended solids, sediment (due to anthropogenic activities); pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.
6. The discharge of pollutants and/or increased flows from MS4s may cause or threaten to cause the concentration of pollutants to exceed applicable receiving water quality objectives and impair or threaten to impair designated beneficial uses resulting in a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance.
7. Pollutants in urban runoff can threaten human health. Human illnesses have been clearly linked to recreating near storm drains flowing to coastal waters. Also, urban runoff pollutants in receiving waters can bioaccumulate in the tissues of invertebrates and fish, which may be eventually consumed by humans.

8. Development and urbanization especially threaten environmentally sensitive areas (ESAs), such as water bodies designated as supporting a RARE beneficial use (supporting rare, threatened or endangered species) and CWA 303(d) impaired water bodies. Such areas have a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance. In essence, development that is ordinarily insignificant in its impact on the environment may become significant in a particular sensitive environment. Therefore, additional control to reduce pollutants from new and existing development may be necessary for areas adjacent to or discharging directly to an ESA.
9. Urban runoff often contains pollutants that cause toxicity to aquatic organisms (i.e., adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). Toxic pollutants impact the overall quality of aquatic systems and beneficial uses of receiving waters.
10. The Final 2002 CWA Section 303(d) List of Water Quality Limited Segments identifies the entire length of Murrieta Creek (12 miles) and the upper portion of the Santa Margarita River (18 miles) as impaired for phosphorus. Potential sources of the phosphorus impairment include urban runoff and unknown point and nonpoint sources. The Santa Margarita Lagoon is listed as impaired for eutrophication.
11. The Permittees' water quality monitoring data submitted to date documents persistent exceedances of Basin Plan water quality objectives for various urban runoff-related pollutants (chlorpyrifos, chromium, diazinon, dissolved oxygen, fecal coliform, MBAS, phosphorus, etc.) at eight different monitoring stations in the Upper Santa Margarita Watershed. The data indicate that urban runoff from activities such as over-application of pesticides and potential illicit discharges from industrial and commercial activities may be contributing to potential water quality impairments. Also, bioassessment monitoring, conducted by the California Department of Fish and Game, and physical assessments, conducted as part of the development of the Draft Operational Guidebook For Referenced Based Assessment of the Functions of Riverine Waters/Wetlands in the Santa Margarita Watershed, indicate that impacts to the biological and physical integrity of receiving waters have occurred as a result of urbanization in the upper watershed.
12. Peak storm water discharges rates, velocities and durations must be controlled to prevent downstream erosion and protect stream habitat. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed urban area is significantly greater in volume, velocity, peak flow rate, and pollutant load than pre-development runoff from the same area. The increased volume, velocity, rate, and duration of runoff greatly accelerate the erosion of downstream natural channels.
13. As part of the ROWD, the Permittees proposed to update and modify their existing Drainage Area Management Plan (DAMP), dated March 1993, to incorporate new programs, requirements, and commitments. Direction to the Permittees in revising the DAMP, hereinafter referred to as a Storm Water Management Plan (SWMP), is necessary to ensure that the document provides a written description of the specific urban runoff management measures and programs that each Permittee will implement to fulfill its individual responsibilities and the area-wide and watershed-based activities necessary to meet the maximum extent practicable (MEP) standard. It is practicable for the Permittees to update the SWMP within one year. The SWMP is an integral and enforceable component of this Order.

14. The MEP standard is an ever-evolving, flexible, and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. Reducing the discharge of pollutants in urban runoff to the MEP requires Permittees to conduct and document evaluation and assessment of each program component and revise activities, control measures, best management practices (BMPs), and measurable goals, as necessary to meet MEP. Because MEP is a dynamic performance standard, it is necessary to describe in greater detail, measures that are essential for compliance.
15. Pollutants can be effectively reduced in urban runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Pollution prevention is the reduction or elimination of pollutant generation at its source and is the best "first line of defense". Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control BMPs remove pollutants from urban runoff.
16. Developing minimum BMPs and implementing or requiring their implementation at industrial and commercial facilities, construction sites, and residential areas is necessary for the Permittees to ensure that, ultimately, discharges of pollutants into and from its MS4 are reduced to the MEP.
17. Controlling urban runoff pollution by using a combination of onsite source control BMPs augmented with treatment control BMPs before the runoff enters the MS4 is important for the following reasons: (1) Many end-of-pipe BMPs (such as diversion to the sanitary sewer) are typically ineffective during significant storm events. Whereas, onsite source control BMPs can be applied during all runoff conditions; (2) End-of-pipe BMPs are often incapable of capturing and treating the wide range of pollutants which can be generated on a sub-watershed scale; (3) End-of-pipe BMPs are more effective when used as polishing BMPs, rather than the sole BMP to be implemented; (4) End-of-pipe BMPs do not protect the quality or beneficial uses of receiving waters between the source and the BMP; and (5) Offsite end-of-pipe BMPs do not aid in the effort to educate the public regarding sources of pollution and their prevention.
18. Urban runoff treatment and/or mitigation must occur prior to the discharge of urban runoff into a receiving water. Federal regulations at 40 CFR 131.10(a) state that in no case shall a state adopt waste transport or waste assimilation as a designated use for any waters of the U.S. Authorizing the construction of an urban runoff treatment facility within a water of the U.S., or using the water body itself as a treatment system or for conveyance to a treatment system, would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the construction, operation, and maintenance of a pollution control facility in a water body can negatively impact the physical, chemical, and biological integrity, as well as the beneficial uses, of the water body. This is consistent with EPA guidance to avoid locating structural controls in natural wetlands.
19. Historic and current developments make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are both MS4s and receiving waters.
20. As operators of the MS4s, the Permittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or control. These discharges may cause or contribute to a condition of contamination or exceedances of water quality objectives.

21. In accordance with federal NPDES regulations and to ensure the most effective oversight of industrial and construction site discharges, discharges of runoff from industrial and construction sites are subject to dual (state and local) storm water regulation. Under this dual system, the SDRWQCB is responsible for enforcing the General Construction Activities Storm Water Permit, SWRCB Order 97-03 DWQ, NPDES No. CAS000001 (General Construction Permit) and the General Industrial Activities Storm Water Permit, SWRCB Order 99-08 DWQ, NPDES No. CAS000002 (General Industrial Permit), and each municipal Permittee is responsible for enforcing its local permits, plans, and ordinances, which may require the implementation of additional BMPs than required under the statewide general permits.
22. This Order implements the federal CWA, the Porter-Cologne Water Quality Control Act (Division 7 of the CWC, commencing with section 13000), applicable state and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board (SWRCB), and the Basin Plan.
23. The RWL language specified in this Order is consistent with language recommended by the EPA and established in SWRCB Water Quality Order 99-05, adopted by the SWRCB on June 17, 1999. The RWL in this Order require compliance with water quality standards through an iterative approach requiring the implementation of improved and better-tailored BMPs over time.
24. The Standard Urban Storm Water Management Plan (SUSMP) requirements contained in this Order are consistent with Order WQ-2000-11 adopted by the SWRCB on October 5, 2000. In the precedential order, the SWRCB found that the design standards, which essentially require that urban runoff generated by 85 percent of storm events from specific development categories be infiltrated or treated, reflects the MEP standard. The order also found that the design standards are appropriately applied to the majority of the Priority Development Project categories contained in Section F of this Order. It gave Regional Water Quality Control Boards (RWQCBs) the discretion to include additional categories and locations, such as retail gasoline outlets (RGOs) and ESAs, in future SUSMPs.
25. RGOs are significant sources of pollutants in urban runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other urban areas. To meet MEP, source control and treatment control BMPs are needed at RGOs that meet the following criteria: (a) 5,000 square feet or more, or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day. These are appropriate thresholds since vehicular development size and volume of traffic are good indicators of potential impacts of urban runoff from RGOs on receiving waters.
26. This Order is in conformance with SWRCB Resolution No. 68-16 and the federal Antidegradation Policy described in 40 CFR 131.12.
27. Section 6217(g) of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) requires coastal states with approved coastal zone management programs to address non-point pollution impacting or threatening coastal water quality. CZARA addresses five sources of non-point pollution: agriculture, silviculture, urban, marinas, and hydromodification. This NPDES permit addresses the management measures required for the urban category, with the exception of septic systems. The adoption and implementation of this NPDES permit relieves the Permittee from developing a non-point source plan, for the urban category, under CZARA. The SDRWQCB addresses septic systems through the administration of other programs.

28. Each Permittee is individually responsible for adoption and enforcement of ordinances and/or policies, implementation of identified control measures/BMPs needed to prevent or reduce pollutants in storm water runoff, and for the allocation of funds for the capital, operation and maintenance, and enforcement expenditures necessary to implement and enforce such control measures/BMPs under its jurisdiction.
29. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not "inject" runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; and (3) ensuring that each drainage feature is adequately maintained in perpetuity.
30. If not properly designed or maintained, certain BMPs implemented or required by municipalities for urban runoff management may create a habitat for vectors (e.g. mosquitoes and rodents). However, proper BMP design to avoid standing water can prevent the creation of vector habitat. Nuisances and public health impacts resulting from vector breeding can be prevented with close collaboration and cooperative effort between municipalities and local vector control agencies and the State Department of Health Services during the development and implementation of the SWMP.
31. The issuance of waste discharge requirements and an NPDES permit for the discharge of urban runoff from MS4s to waters of the U.S. is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, section 21000 et seq.) in accordance with the CWC section 13389.
32. The SDRWQCB has notified the Permittees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing discharge of urban runoff.
33. The SDRWQCB has, at public meetings on February 11, 2004 and July 14, 2004, held public hearings and heard and considered all comments pertaining to the terms and conditions of this Order.

PERMIT PROVISIONS

IT IS HEREBY ORDERED: That the Permittees, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the CWA and regulations adopted thereunder, shall each comply with the following:

A. PROHIBITIONS

1. Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC section 13050), in waters of the State are prohibited.
2. Discharges from MS4s that cause or contribute to exceedances of water quality objectives for surface water or groundwater are prohibited.
3. Discharges from MS4s containing pollutants which have not been reduced to the MEP are prohibited.
4. In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in **Attachment A** to this Order.

B. NON-STORM WATER DISCHARGES

1. Each Permittee shall effectively prohibit all types of non-storm water discharges into its MS4 unless such discharges are either authorized by a separate NPDES permit; or authorized in accordance with Requirements B.2 and B.3 below.
2. The following categories of non-storm water discharges are not prohibited unless a Permittee or the SDRWQCB identifies the discharge category as a source of pollutants to waters of the U.S. For such a discharge category, the Permittee shall either prohibit the discharge category or develop and implement appropriate control measures under the SWMP to reduce pollutants to the MEP and submit the report to the SDRWQCB pursuant to section III.A.1.d of Monitoring and Reporting Program No. R9-2004-001 (hereafter referred to as the MRP).
 - a) Diverted stream flows;
 - b) Rising ground waters;
 - c) Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
 - d) Uncontaminated pumped ground water;
 - e) Foundation drains;
 - f) Springs;
 - g) Water from crawl space pumps;
 - h) Footing drains;
 - i) Air conditioning condensation;
 - j) Flows from riparian habitats and wetlands;
 - k) Water line flushing;
 - l) Landscape irrigation;
 - m) Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks;
 - n) Irrigation water;
 - o) Lawn watering;

- p) Individual residential car washing;
 - q) Non-emergency fire fighting flows; and
 - r) Dechlorinated swimming pool discharges.
3. Discharges from emergency fire fighting activities are not prohibited. If discharges are determined to be a significant source of pollutants to waters of the U.S., the Permittees shall require the implementation of appropriate BMPs to reduce the discharge of pollutants to the MEP, when not interfering with the protection of health and property.
 4. Each Permittee shall examine its Illicit Discharge Monitoring results collected in accordance with Requirement J.3 of this Order and section II.B of the MRP to identify water quality problems which may be the result of any non-prohibited discharge category(ies) listed above in Requirement B.2. Follow-up investigations shall be conducted as necessary to identify and control any non-prohibited discharge category(ies) listed above.

C. RECEIVING WATER LIMITATIONS

1. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses of receiving waters) are prohibited.
2. Each Permittee shall comply with Requirement C.1, Prohibition A.2, and Prohibition A.4 as it applies to Prohibition No. 5 in **Attachment A** of this Order through timely implementation of control measures and other actions to reduce pollutants in urban runoff discharges in accordance with the SWMP and other requirements of this Order including any modifications. The SWMP shall be designed to achieve compliance with Requirement C.1, Prohibition A.2, and Prohibition A.4 as it applies to Prohibition 5 in **Attachment A** of this Order. If exceedance(s) of water quality standards persist notwithstanding implementation of the SWMP and other requirements of this Order, the Permittee shall assure compliance with Requirement C.1, Prohibition A.2, and Prohibition A.4 as it applies to Prohibition 5 in **Attachment A** of this Order by complying with the following procedure:
 - a) Upon a determination by either a Permittee or the SDRWQCB that MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Permittee shall promptly notify and thereafter submit a report to the SDRWQCB that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the SWMP Annual Report unless the SDRWQCB directs an earlier submittal. The report shall include an implementation schedule. The SDRWQCB may require modifications to the report;
 - b) Submit any modifications to the report required by the SDRWQCB within 30 days of notification;
 - c) Within 30 days following SDRWQCB approval of the report described above, the Permittee shall revise its SWMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;
 - d) Implement the revised SWMP and monitoring program in accordance with the approved schedule.

So long as the Permittee has complied with the procedures set forth above and are implementing

the revised SWMP, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the SDRWQCB to develop additional BMPs.

D. LEGAL AUTHORITY

1. Each Permittee shall establish, maintain, and enforce adequate legal authority to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize the Permittee to:
 - a) Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to its MS4 and control the quality of runoff from industrial and construction sites. This requirement applies both to industrial and construction sites that have coverage under the General Industrial Permit and General Construction Permit, as well as to those sites that do not. Grading ordinances shall be upgraded and enforced as necessary to comply with this Order.
 - b) Prohibit all identified illicit discharges not otherwise allowed pursuant to Requirement B.2 including but not limited to:
 - (1) Sewage;
 - (2) Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
 - (3) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
 - (4) Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;
 - (5) Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
 - (6) Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
 - (7) Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
 - (8) Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
 - (9) Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).
 - c) Prohibit and eliminate illicit connections to the MS4;
 - d) Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
 - e) Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);

- f) Require the use of BMPs to prevent or reduce the discharge of pollutants into MS4s to the MEP.
 - g) Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Permittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities discharging into its MS4, including construction sites;
 - h) Utilize enforcement mechanisms to require compliance with Permittee storm water ordinances, permits, contracts, or orders; and
 - i) Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Permittees;
2. Each Permittee shall include as part of its Individual SWMP, which must be submitted within 365 days of adoption of this Order, a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order.

E. STORM WATER MANAGEMENT PLAN (SWMP)

1. Within 365 days from the date of this Order, the Principal Permittee shall submit a SWMP to the SDRWQCB. The SWMP shall describe the various urban runoff management programs that will be implemented to comply with this Order and to reduce pollutants in urban runoff to the MEP for the duration of this Order. The SWMP is an integral and enforceable component of this Order and shall consist of the following:
 - a) Individual SWMP - The written description of each Permittee's individual programs that address Sections B through J of this Order. **Attachment D** contains direction for the preparation of the Individual SWMP. Each Permittee shall submit their Individual SWMP to the Principal Permittee by a date determined by the Principal Permittee for inclusion in the SWMP.
 - b) Watershed SWMP - The written account of all area-wide and watershed-based programs and activities conducted by the Permittees. The Watershed SWMP shall contain the programs and items required above in Requirements K.1 – K.4 of this Order.
2. Unless otherwise specified, within 365 days of the adoption of this Order, each Permittee shall have completed full implementation of the SWMP and all requirements in this Order. Prior to the implementation of new or revised programs, each Permittee shall, at a minimum, continue implementation of existing programs developed pursuant to Order No. R9-98-02 and described in the 2002-2003 Annual Progress Report.
3. Each Permittee shall incorporate a mechanism for public participation during the development and implementation of its SWMP.

F. DEVELOPMENT PLANNING

Permittees shall implement a program, including but not limited to, the requirements in this section, to reduce pollutants in urban runoff from developments to the MEP.

1. Assess General Plan

Each Permittee's General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) shall include water quality and watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures for development projects. As part of its Individual SWMP, each Permittee shall provide a workplan with a time schedule detailing any changes to its General Plan regarding water quality and watershed protection. Examples of water quality and watershed protection principles and policies to be considered include the following:

- a) Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of development and, where feasible, slow runoff and maximize on-site infiltration of runoff.
- b) Implement pollution prevention methods supplemented by source control and treatment control BMPs. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.
- c) Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- d) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
- e) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of appropriate BMPs to mitigate the projected increases in pollutant loads and flows.
- f) Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.
- g) Reduce pollutants associated with vehicles and increasing traffic resulting from development.
- h) Post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the MEP.

2. Modify Development Project Approval Processes

a) Requirements for all Development Projects (New Development and Redevelopment)

During the planning process, prior to the issuance of permits, Permittees shall require all proposed development projects to implement BMPs to ensure that the discharge of pollutants from the development will be reduced to the MEP and will comply with this Order and all local ordinances, plans, and permits. Development project requirements shall ensure that water quality objectives are not violated throughout the life of the development. At a minimum, requirements shall:

- (1) Require project proponent to implement applicable pollution prevention and source control BMPs for applicable development projects.
- (2) Require project proponent to implement site design/landscape characteristics where feasible which maximize infiltration, provide retention, slow runoff, and minimize impervious land coverage for all development projects.

- (3) Require project proponent to incorporate buffer zones for natural water bodies, where feasible. Where buffer zones are infeasible, require project proponent to implement other buffers such as trees, access restrictions, etc.
 - (4) When known, require industrial facility operators subject to the General Industrial Permit to provide evidence of permit coverage prior to occupancy.
 - (5) Require project proponent to ensure its grading or other construction activities meet the provisions specified in Section G of this Order.
 - (6) Require project proponent to provide proof of a mechanism which will ensure ongoing long-term maintenance of all structural post-construction BMPs.
- b) Standard Urban Storm Water Mitigation Plans (SUSMPs) – Requirements for Priority Development Projects

Within 365 days of adoption of this Order, each Permittee shall develop, adopt, and implement a SUSMP to reduce pollutants to the MEP and to maintain or reduce downstream erosion and protect stream habitat from all Priority Development Projects. Priority Development Projects are: a) all new development projects, and b) those redevelopment projects that create, add or replace at least 5,000 square feet of impervious surfaces on an already developed site, that are listed under the project categories or locations in Requirement F.2.b.(1) below. Redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in Requirement F.2.b.(3) applies only to the addition, and not to the entire development. Each Permittee shall submit both the adopted SUSMP and amended ordinances to the SDRWQCB no later than 365 days after the adoption of this Order.

Immediately following adoption of its SUSMP, each Permittee shall review and ensure that all Priority Development Projects meet SUSMP requirements. The SUSMP requirements shall apply to all Priority Development Projects or phases of Priority Development Projects that have not yet begun grading or construction activities. If a Permittee determines that lawful prior approval of a project exists, whereby application of SUSMP requirements to the project is infeasible, SUSMP requirements need not apply to the project. Where feasible, the Permittees shall utilize the 12-month SUSMP development and implementation period to ensure that projects undergoing approval processes include application of SUSMP requirements in their plans.

(1) Priority Development Project Categories

- (a) *Housing subdivisions of 10 or more dwelling units.* This category includes single-family homes, multi-family homes, condominiums, and apartments.
- (b) *Commercial developments greater than 100,000 square feet.* This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; municipal facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-

malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; airfields; and other light industrial facilities.

- (c) *Automotive repair shops.* This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.
 - (d) *Restaurants.* This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement F.2.b.(3) and peak flow rate requirement F.2.b.(2)(a).
 - (e) *All hillside development greater than 5,000 square feet.* This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.
 - (f) *Environmentally Sensitive Areas (ESAs).* All development located within or directly adjacent to or discharging directly to an ESA (where discharges from the development or redevelopment will enter receiving waters within the ESA), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition. "Directly adjacent" means situated within 200 feet of the ESA. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
 - (g) *Parking lots 5,000 square feet or more.* Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
 - (h) *Street, roads, highways, and freeways.* This category includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.
 - (i) *Retail Gasoline Outlets.* This category includes RGOs that meet the following criteria: (a) 5,000 square feet or more or (b) a projected Average Daily Traffic (ADT) of 100 or more vehicles per day
- (2) **BMP Requirements** – The SUSMP shall include a list of recommended source control and treatment control BMPs. The SUSMP shall require all Priority Development Projects to implement a combination of on-site source control and on-site/shared treatment control BMPs (to treat the runoff specifically generated from each project) selected from the recommended BMP list. The BMPs shall, at a minimum:
- (a) Control the post-development urban runoff discharge velocities, volumes, durations, and peak rates to maintain or reduce pre-development downstream erosion, and to protect stream habitat;
 - (b) Conserve natural areas where feasible;

- (c) Minimize storm water pollutants of concern in urban runoff from the Priority Development Projects (through implementation of source control BMPs). Identification of pollutants of concern shall include, at a minimum, all pollutants for which water bodies receiving the development's runoff are listed as impaired under CWA section 303(d), all pollutants associated with the land use type of the development, and all pollutants commonly associated with urban runoff;
- (d) Be effective at removing or treating the pollutants of concern associated with the project;
- (e) Minimize directly connected impervious areas where feasible;
- (f) Protect slopes and channels from eroding;
- (g) Include storm drain stenciling and signage;
- (h) Include properly designed outdoor material storage areas;
- (i) Include properly designed trash storage areas;
- (j) Include proof of a mechanism, to be provided by the project proponent or Permittee, which will ensure ongoing long-term BMP maintenance;
- (k) Include additional water quality provisions applicable to individual Priority Development Project categories;
- (l) Be correctly designed so as to remove pollutants to the MEP;
- (m) Be implemented close to pollutant sources, when feasible, and prior to discharging into receiving waters; and
- (n) Ensure that post-development runoff does not contain pollutant loads which cause or contribute to an exceedance of water quality objectives and which have not been reduced to the MEP.

Under no circumstances can a BMP be constructed in a receiving water.

- (3) Numeric Sizing Criteria – The SUSMP shall require treatment control BMPs to be implemented for all Priority Development Projects. All treatment control BMPs shall be located so as to infiltrate, filter, or treat the required runoff volume or flow prior to its discharge to any receiving water. Treatment control BMPs may be shared by multiple Priority Development Projects as long as construction of any shared treatment control BMPs is completed prior to the use of any development project from which the treatment control BMP will receive runoff, and prior to discharge to a receiving water.

In addition to meeting the BMP requirements listed in Requirement F.2.b.(2) above, all treatment control BMPs for a single Priority Development Project shall collectively be sized to comply with the following numeric sizing criteria:

- (a) *Volume* - Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- (i) The volume of runoff produced from a 24-hour 85th percentile rainfall depth, as determined from the local historical rainfall record (0.6 inch approximate average for the Riverside County area)¹; or
- (ii) The volume of runoff produced by the 85th percentile 24-hour runoff event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
- (iii) The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in *California Stormwater Best Management Practices Handbook New Development and Redevelopment* (2003); or
- (iv) The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event;²

OR

- (b) *Flow* - Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- (i) The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour of a storm event; or
- (ii) The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity (for each hour of a storm event), as determined from the local historical rainfall record, multiplied by a factor of two; or
- (iii) The maximum flow rate of runoff for each hour of a storm event, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

- (4) Equivalent Numeric Sizing Criteria - The Permittees may develop, as part of the SUSMP, any equivalent method for calculating the volume or flow which must be mitigated (i.e., any equivalent method for calculating numeric sizing criteria) by post-construction treatment control BMPs. Such equivalent sizing criteria may be authorized by the SDRWQCB for use in place of the above criteria. In the absence of development and subsequent authorization of such equivalent numeric sizing criteria, the above numeric sizing criteria requirement shall be implemented.

¹ This volume is not a single volume to be applied to all of Riverside County. The size of the 85th percentile storm event is different for various parts of the County. The Permittees are encouraged to calculate the 85th percentile storm event for each of their jurisdictions using local rain data pertinent to their particular jurisdiction (inch standard is a rough average for the County and should only be used where appropriate rain data is not available). In addition, isopluvial maps may be used to extrapolate rainfall data to areas where insufficient data exists in order to determine the volume of the local 85th percentile storm event in such areas. Where the Permittees will use isopluvial maps to determine the 85th percentile storm event in areas lacking rain data, the Permittees shall describe their method for using isopluvial maps in their SUSMPs.

² Under this volume criteria, hourly rainfall data may be used to calculate the 85th percentile storm event, where each storm event is identified by its separation from other storm events by at least six hours of no rain. Where the Permittees may use hourly rainfall data to calculate the 85th percentile storm event, the Permittees shall describe their method for using hourly rainfall data to calculate the 85th percentile storm event in their SUSMPs.

- (5) Pollutants or Conditions of Concern – As part of the SUSMP, the Permittees shall develop a procedure for pollutants or conditions of concern to be identified for each Priority Development Project. The procedure shall address, at a minimum: (1) Receiving water quality (including pollutants for which receiving waters are listed as impaired under CWA section 303(d)); (2) Land use type of the development project and pollutants associated with that land use type; (3) Pollutants expected to be present on site; (4) Changes in storm water discharge flow rates, velocities, durations, and volumes resulting from the development project; and (5) Sensitivity of receiving waters to changes in storm water discharge flow rates, velocities, durations, and volumes.
- (6) Implementation Process – As part of the SUSMP, the Permittees shall develop a process by which SUSMP requirements will be implemented. The process shall identify at what point in the planning process development projects will be required to meet SUSMP requirements. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the SUSMP requirements, as well as any other measures necessary for the implementation of SUSMP requirements.
- (7) Waiver Provision – A Permittee may provide for a project to be waived from the requirement of implementing all treatment control BMPs (Requirements F.2.b.(2) & F.2.b.(3)) if infeasibility can be established. A waiver of infeasibility shall only be granted by a Permittee when all available treatment control BMPs have been considered and rejected as infeasible. Permittees shall notify the SDRWQCB within 5 days of each waiver issued and shall include the following information in the notification:
- (a) Name of the person granting each waiver;
 - (b) Name of developer receiving the waiver;
 - (c) Site location;
 - (d) Reason for waiver; and
 - (e) Description of BMPs required.

As part of the SUSMP, the Permittees may develop a program to require project proponents who have received waivers to transfer the savings in cost, as determined by the Permittee(s), to a storm water mitigation fund. This program may be implemented by all Permittees that choose to provide waivers. Funds may be used on projects to improve urban runoff quality within the watershed of the waived project. The waiver mitigation program should, at a minimum, identify:

- (a) The entity or entities that will manage the storm water mitigation fund (i.e., assume full responsibility for);
 - (b) The range and types of acceptable projects for which mitigation funds may be expended;
 - (c) The entity or entities that will assume full responsibility for each mitigation project including its successful completion; and
 - (d) How the dollar amount of fund contributions will be determined.
- (8) Infiltration and Groundwater Protection – To protect groundwater quality, each Permittee shall apply restrictions to the use of treatment control BMPs that are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration

basins). Such restrictions shall ensure that the use of such infiltration treatment control BMPs shall not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, use of treatment control BMPs that are designed to primarily function as infiltration devices shall meet the following conditions.³ As part of the SUSMP, the Permittees may develop alternative restrictions on the use of treatment control BMPs which are designed to primarily function as infiltration devices.

- (a) Urban runoff shall undergo pretreatment such as sedimentation or filtration prior to infiltration;
 - (b) All dry weather flows shall be diverted from infiltration devices;
 - (c) Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration treatment control BMPs are to be used;
 - (d) Infiltration treatment control BMPs shall be adequately maintained so that they remove pollutants to the MEP;
 - (e) The vertical distance from the base of any infiltration treatment control BMP to the seasonal high groundwater mark shall be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained;
 - (f) The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses;
 - (g) Infiltration treatment control BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Permittee; and
 - (h) Infiltration treatment control BMPs shall be located a minimum of 100 feet horizontally from any water supply wells. As part of the SUSMPs, the Permittees may develop alternative restrictions on the use of treatment control BMPs that are designed to primarily function as infiltration devices.
- (9) Downstream Erosion – The Permittees shall develop numeric criteria to ensure that discharges from Priority Development Projects maintain or reduce pre-development downstream erosion and protect stream habitat. At a minimum, numeric criteria shall be developed to control urban runoff discharge velocities, volumes, durations, and peak rates in order to maintain or reduce pre-development downstream erosion and protect stream habitat. The Permittees shall propose numeric criteria and a time-schedule for implementation of the criteria on new development projects within 365 days of the identification of the criteria and no later than the fourth-year Annual Report, or the application for permit renewal, to be submitted no later than October 31, 2008.

³ These conditions do not apply to treatment control BMPs that allow incidental infiltration and are not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.).

The Permittees shall be prepared to implement the numeric criteria upon renewal of this Order.

3. Revise Environmental Review Processes

Permittees shall revise their current environmental review processes as necessary to include requirements for evaluation of water quality effects and identification of appropriate mitigation measures for all development projects. The following questions are examples to be considered in addressing increased pollutants and flows from proposed projects:

- a) Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).
- b) Could the proposed project result in significant alteration of receiving water quality during or following construction?
- c) Could the proposed project result in increased impervious surfaces and associated increased runoff?
- d) Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?
- e) Could the proposed project result in increased erosion downstream?
- f) Is the project tributary to an already impaired water body, as listed on the CWA section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?
- g) Is the project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?
- h) Could the proposed project have a potentially significant environmental impact on surface water quality of marine, fresh, or wetland waters?
- i) Could the proposed project have a potentially significant adverse impact on groundwater quality?
- j) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?
- k) Can the project impact aquatic, wetland, or riparian habitat?

4. Conduct Education Efforts Focused on Development

a) Internal: Municipal Staff

Each Permittee shall implement an education program that includes annual training to ensure that planning and development review staffs (and Planning Boards and Elected Officials, if applicable) have an understanding of:

- (1) Federal, state, and local water quality laws and regulations applicable to development projects;
- (2) The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and

- (3) How impacts to receiving water quality resulting from development can be minimized (i.e., through implementation of various source control and treatment control BMPs).
- b) External: Project Applicants, Developers, Contractors, Property Owners, Community Planning Groups

As early in the planning and development process as possible, each Permittee shall implement a program to educate project applicants, developers, contractors, property owners, and community planning groups on the following topics:

- (1) Federal, state, and local water quality laws and regulations applicable to development projects;
- (2) Required federal, state, and local permits pertaining to water quality;
- (3) Water quality impacts of urbanization; and
- (4) Methods for minimizing the impacts of development on water quality.

G. CONSTRUCTION

Each Permittee shall implement a program to address construction sites to reduce pollutants in runoff to the MEP during all construction phases. At a minimum the construction component shall address:

1. Pollution Prevention

Each Permittee shall implement pollution prevention methods in its Construction Component and shall require its use by construction site owners, developers, contractors, and other responsible parties, where appropriate.

2. Grading Ordinance Update

Within 365 days of adoption of this Order, each Permittee shall review and update its grading ordinances as necessary for compliance with its storm water ordinances and this Order. The updated grading ordinance shall require implementation of BMPs designated by the Permittees pursuant to Requirements G.5 of this Order and other measures during all construction activities.

3. Modify Construction and Grading Approval Process

Each Permittee shall develop and implement a process to ensure that BMPs to reduce the discharge of pollutants to the MEP are applicable to construction and grading permits and plans prior to their approval and issuance. Such BMPs shall include the following requirements or their equivalent:

- a) Require project proponent to develop and implement a plan to manage storm water and non-storm water discharges from the site at all times;
- b) Require project proponent to minimize grading during the wet season and coincide grading with seasonal dry weather periods to the extent feasible. If grading does occur during the wet season, require project proponent to implement additional BMPs for any rain events which may occur, as necessary for compliance with this Order;
- c) Require project proponent to emphasize erosion prevention as the most important measure for keeping sediment on site during construction;
- d) Require project proponent to utilize sediment controls as a supplement to erosion prevention for keeping sediment on-site during construction, and never as the single or primary method;

- e) Require project proponent to minimize areas that are cleared and graded to only the portion of the site that is necessary for construction;
- f) Require project proponent to minimize exposure time of disturbed soil areas;
- g) Require project proponent to temporarily stabilize and reseed disturbed soil areas as rapidly as possible;
- h) Require project proponent to permanently revegetate or landscape as early as feasible;
- i) Require project proponent to stabilize all slopes; and
- j) Require project proponents subject to the General Construction Permit to provide evidence of existing permit coverage.

4. Source Identification

Each Permittee shall annually develop and update, prior to the rainy season, an inventory of all construction sites within its jurisdiction regardless of site size or ownership. This requirement is applicable to all construction sites regardless of whether the construction site is subject to the General Construction Permit, or other individual NPDES permit. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended, but not required.

5. BMP Implementation

- a) Each Permittee shall designate a set of minimum BMPs that ensure the following at all construction sites:
 - (1) Erosion prevention;
 - (2) Slope stabilization;
 - (3) Phased grading;
 - (4) Revegetation as early as feasible;
 - (5) Preservation of natural hydrologic features where feasible;
 - (6) Preservation of riparian buffers and corridors where feasible;
 - (7) Maintenance of all source control and treatment control BMPs; and
 - (8) Retention and proper management of sediment and other construction pollutants on site.
- b) Each Permittee shall implement, or require the implementation of, the designated minimum BMPs at each construction site within its jurisdiction year round. If a particular minimum BMP is infeasible at any specific site, each Permittee shall implement, or require the implementation of, other equivalent BMPs. Each Permittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order, including BMPs which are more stringent than those required under the General Construction Permit.
- c) Each Permittee shall implement, or require the implementation of, BMPs year round; however, BMP implementation requirements can vary based on wet and dry seasons.
- d) Each Permittee shall implement, or require implementation of, additional controls for construction sites tributary to CWA section 303(d) water bodies impaired for sediment as necessary to comply with this Order. Each Permittee shall implement, or require implementation of, additional controls for construction sites within or adjacent to or discharging directly to receiving waters within ESAs as necessary to comply with this Order.

6. Inspection of Construction Sites

- a) Each Permittee shall conduct construction site inspections for compliance with its local ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order.
- b) During the wet season Permittees shall, at a minimum, inspect the following sites every two weeks⁴:
 - (1) All sites 50 acres or more in size and grading will occur during the wet season;
 - (2) All sites 5 acres or more, and tributary to a CWA section 303(d) water body impaired for sediment or within or directly adjacent to or discharging directly to a receiving water within ESA; and
 - (3) Other sites determined by the Permittees or the SDRWQCB as a significant threat to water quality. In evaluating threat to water quality, the following factors shall be considered: (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; and (7) any other relevant factors.
- c) The Permittees, at a minimum, shall inspect all construction sites that do not meet the criteria specified in Requirement G.6.b above, but encompass 1 acre or more of soil disturbance at least three times during the wet season.
- d) The Permittees shall inspect construction sites less than 1 acre in size on as needed basis.
- e) Permittees shall inspect all construction sites as needed during the dry season.
- f) Based upon site inspection findings, each Permittee shall implement all follow-up actions necessary to comply with this Order.

7. Enforcement of Construction Sites

Each Permittee shall enforce its ordinances (grading, storm water, etc.) and permits (building, grading, etc.) at all construction sites as necessary to maintain compliance with this Order. Permittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: stop work authority, non-monetary penalties, fines, financial security, and/or permit denials for non-compliance.

8. Education Focused on Construction Activities

a) Internal: Municipal Staff

Each Permittee shall implement an education program that includes annual training to ensure that its construction, building, and grading review staff and inspectors have, at a minimum, an understanding of:

- (1) Federal, state, and local water quality laws and regulations applicable to construction and grading activities;

⁴ Any site may be inspected on a monthly basis if the responsible Permittee certifies in a written statement to the SDRWQCB ALL of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):

- Permittee has record of construction site's WDID number documenting the site's coverage under the General Construction Permit;
- Permittee has reviewed the construction site's SWPPP and finds the SWPPP to be in compliance with all local ordinances, permits, and plans; and
- Permittee finds that the SWPPP is being properly implemented on site.

- (2) The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization);
 - (3) How erosion can be prevented;
 - (4) How impacts to receiving water quality resulting from construction activities can be minimized (i.e., through implementation of various source control and treatment control BMPs); and
 - (5) How to assess construction sites for adequate BMP implementation and compliance with local codes, ordinances, and permits, and this Order.
- b) External: Project Applicants, Contractors, Developers, Property Owners, and other Responsible Parties

Each Permittee shall implement an education program to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the topics outlined above.

H. EXISTING DEVELOPMENT

Each Permittee shall develop and implement programs to prevent or reduce pollutants in runoff to the MEP from all existing development under its jurisdiction. The Existing Development programs shall address Sections H.1 through H.3 for municipal facilities and activities, industrial and commercial facilities, and residential activities.

1. Municipal Program

a) Pollution Prevention

Each Permittee shall require the use of pollution prevention methods by municipal departments, contractors, and personnel, where appropriate.

b) Source Identification

Each Permittee shall develop, and update annually, an inventory of the name, address (if applicable), and description of all of the Permittee's municipal facilities and activities that generate pollutants. Municipal facilities and activities to be inventoried shall include, but are not limited to, the following:

- Roads, streets, highways, and parking facilities;
- Flood management projects and flood control devices;
- Drainage facilities;
- Active or closed municipal landfills;
- Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
- Incinerators;
- Solid waste transfer facilities;
- Land application sites;
- Uncontrolled sanitary landfills;
- Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles;
- Sites for disposing and treating sewage sludge;
- Hazardous waste treatment, disposal, and recovery facilities;
- Household hazardous waste collection facilities;

- Municipal airfields;
- Parks and recreational facilities;
- Golf courses;
- Cemeteries;
- Other landscaped areas;
- Channel maintenance activities involving mowing and pesticide/herbicide application;
- Municipal facilities and activities tributary to a CWA section 303(d) impaired water body, where an area or activity generates pollutants for which the water body is impaired. Facilities and activities within or adjacent to or discharging directly to receiving waters within ESAs; and
- Other municipal facilities and activities that the Permittee determines may contribute a significant pollutant load to the MS4.

c) BMP Implementation

- (1) Within 365 days from the date of this Order, each Permittee shall implement or require the implementation of BMPs to reduce pollutants in urban runoff to the MEP from all of the Permittee's municipal facilities and activities. The required BMPs shall be facility or activity specific as appropriate.
- (2) For facilities and/or activities tributary to CWA section 303(d) impaired water bodies that generate pollutants for which the water body is impaired, each Permittee shall implement or require the implementation of additional BMPs to target that pollutant. Each Permittee shall implement, or require implementation of, additional controls for municipal facilities and activities within or directly adjacent to or discharging directly to receiving waters within ESAs as necessary to comply with this Order.

d) MS4 Maintenance

- (1) Each Permittee shall implement a schedule of maintenance activities for its structural source and treatment control BMPs designed to reduce pollutant discharges to or from its MS4s and related drainage structures.
- (2) Each Permittee shall implement a schedule of maintenance activities for its MS4. The maintenance activities must, at a minimum, include:
 - (a) Inspection of all of the Permittee's catch basins and storm drain inlets at least once a year between May 1 and September 30. If accumulated waste is visible, the catch basin, or storm drain inlet, shall be cleaned out. Additional cleaning shall be conducted as necessary;
 - (b) Removal of anthropogenic litter from the Permittee's open channels at least once a year between May 1 and September 30, with additional removal as necessary;
 - (c) Record keeping of the Permittee's MS4 cleaning activities;
 - (d) Proper disposal of waste removed from the Permittee's MS4 pursuant to applicable laws; and
 - (e) Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.

e) Management of Pesticides, Herbicides, and Fertilizers

The Permittees shall implement BMPs to reduce the contribution of pollutants to the MEP

associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from municipal facilities and activities to MS4s. Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators and distributors; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) schedules for irrigation and chemical application; and (5) the collection and proper disposal of unused pesticides, herbicides, and fertilizers.

f) Inspection of Municipal Facilities and Activities

At a minimum, each Permittee shall inspect all municipal facilities and activities annually. Inspections shall include an assessment of BMP implementation and effectiveness. Based upon site inspection findings, each Permittee shall implement all follow-up actions necessary to comply with this Order.

g) Enforcement of Municipal Facilities and Activities

Each Permittee shall enforce its storm water ordinance at all of its municipal facilities and activities as necessary to maintain compliance with this Order.

2. Industrial/Commercial Facilities Program

a) Pollution Prevention

Each Permittee shall require the use of pollution prevention methods by industrial/commercial facilities, where appropriate.

b) Source Identification

Each Permittee shall develop an inventory or database of all industrial and commercial facilities under its jurisdiction (regardless of site ownership) that could contribute a significant pollutant load to the MS4. At a minimum, the following facilities shall be included:

(1) Commercial Facilities:

- Automobile mechanical repair, maintenance, fueling, or cleaning;
- Airplane mechanical repair, maintenance, fueling, or cleaning;
- Boat mechanical repair, maintenance, fueling, or cleaning;
- Equipment repair, maintenance, fueling, or cleaning;
- Automobile and other vehicle body repair or painting;
- Mobile automobile or other vehicle washing (base of operations);
- Automobile (or other vehicle) parking lots and storage facilities;
- Retail or wholesale fueling;
- Pest control services (base of operations);
- Eating or drinking establishments;
- Mobile carpet, drape or furniture cleaning (base of operations);
- Concrete mixing or cutting (base of operations);
- Masonry (base of operations);
- Painting and coating (base of operations);
- Landscaping (base of operations);
- Nurseries and greenhouses;
- Golf courses, parks and other recreational areas/facilities;

- Cemeteries;
 - Pool and fountain cleaning (base of operations);
 - Port-a-Potty servicing (base of operations);
- (2) Industrial Facilities:
- Industrial facilities, as defined at 40 CFR 122.26(b)(14), including those subject to the General Industrial Permit;
 - Operating and closed municipal landfills;
 - Facilities subject to SARA Title III;
 - Hazardous waste treatment, disposal, storage and recovery facilities;
- (3) All other facilities tributary to a CWA section 303(d) impaired water body, where a facility generates pollutants for which the water body is impaired; and
- (4) All other facilities that the Permittee determines may contribute a significant pollutant load to the MS4.

The inventory shall include the following minimum information for each facility: name; address; a narrative description that best reflects the principal products or services provided by each facility, and the SIC code for industrial facilities.

Each Permittee shall maintain an up-to-date inventory. New information obtained during inspections or through other intra-agency informational sources (e.g. business licenses, pretreatment permits, sanitary sewer hook-up permits, yellow pages, etc.) shall be used to update the inventory on a regular basis.

c) BMP Implementation

- (1) Within 365 days from the date of this Order, each Permittee shall designate a set of minimum BMP requirements for all inventoried industrial/commercial facilities to reduce the discharge of pollutants in runoff to the MEP. Designated BMPs may be specific to facility types or to pollutant-generating activities conducted at the facilities.
- (2) For facilities and/or activities tributary to CWA section 303(d) impaired water bodies that generate pollutants for which the water body is impaired, each Permittee shall designate additional BMPs to target that pollutant. Each Permittee shall implement, or require implementation of, additional controls for industrial/commercial facilities and activities within or directly adjacent to or discharging directly to receiving waters within ESAs as necessary to comply with this Order.
- (3) Within 365 days from the date of this Order, each Permittee shall notify all inventoried facilities of their applicable minimum BMP requirements, and a description of the local codes or ordinances requiring compliance with reducing the discharge of pollutants in runoff to the MEP.
- (4) Each Permittee shall implement, or require the implementation of, the designated minimum BMPs at each inventoried facility within its jurisdiction. If a particular minimum BMP is infeasible at any specific site, each Permittee shall implement, or require implementation of, other equivalent BMPs. Each Permittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order including BMPs which are more stringent than those required under the General Industrial Permit.

d) Inspection of Industrial/Commercial Facilities

- (1) To establish priorities for inspections and oversight of industrial/commercial facilities, the Permittees shall prioritize each inventory described in Requirement H.2.b. above by threat to water quality (high, medium, or low). In evaluating threat to water quality, each Permittee shall consider, at a minimum, the following:
 - Type of facility (SIC Code);
 - Materials used at the facility;
 - Wastes generated;
 - Exposure of activities and pollutant discharge potential;
 - History of non-storm water discharges;
 - Size of facility;
 - Proximity to receiving water bodies and sensitivity of receiving water bodies;
 - Whether the industrial site is subject to the General Industrial Permit;
 - Any available source monitoring data; and
 - Any other relevant factors.
- (2) Each Permittee shall inspect and ensure minimum BMP implementation at all inventoried industrial/commercial facilities in accordance with the following schedule:
 - (a) High priority facilities shall be inspected annually;
 - (b) Medium priority facilities shall be inspected biannually (twice during the 5-year term of the permit);
 - (c) Low priority facilities shall be inspected once during the 5-year term of the permit; and
 - (d) Mobile operations shall be inspected as needed.
- (3) Inspections of industrial facilities shall include, but not be limited to:
 - (a) Check for coverage under the General Industrial Permit (Notice of Intent (NOI) and/or Waste Discharge Identification No.);
 - (b) Assessment of compliance with Permittee ordinances and permits related to urban runoff, including the implementation and maintenance of designated minimum BMPs;
 - (c) Assessment of BMP effectiveness;
 - (d) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and
 - (e) Education and outreach on storm water pollution prevention.
- (4) Inspections of commercial facilities shall include, but not be limited to:
 - (a) Assessment of compliance with Permittee ordinances and permits related to urban runoff, including the implementation and maintenance of designated minimum BMPs;
 - (b) Assessment of BMP effectiveness;
 - (c) Visual observations for non-storm water discharges, potential illicit connections, and potential discharge of pollutants in storm water runoff; and
 - (d) Education and outreach on storm water pollution prevention.

- (5) To the extent that the SDRWQCB has conducted an inspection of an industrial facility during a particular year, the requirement for the responsible Permittee to inspect this site during the same year will be satisfied.
- (6) Based upon facility inspection findings, each Permittee shall implement all follow-up actions necessary to comply with this Order.

e) Enforcement of Industrial/Commercial Facilities

Each Permittee shall enforce its storm water ordinance at all industrial/commercial facilities as necessary to maintain compliance with this Order. Permittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

f) Reporting of Industrial Non-Filers

As part of each Annual Report, each Permittee shall report a list of industrial facilities, including the name, address, and SIC code, that may require coverage under the General Industrial Permit for which a NOI has not been filed.

g) Industrial/Commercial Inspection Training

Each Permittee shall train staff responsible for conducting inspections of industrial/commercial facilities at least once a year. Permittees are encouraged to conduct training programs and provide compliance assistance to industrial/commercial facility owners, operators, and employers.

3. Residential Program

a) Pollution Prevention

Each Permittee shall encourage the use of pollution prevention methods by residents, where appropriate.

b) Source Identification

Each Permittee shall identify high priority residential activities that may contribute a significant pollutant load to the MS4. These activities may include:

- 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;
- Disposal of pet waste;
- Disposal of green waste; and
- Any other residential source that the Permittee determines may contribute a significant pollutant load to the MS4.

c) BMP Implementation

- (1) Within 365 days from the date of this Order, each Permittee shall designate a set of minimum BMP requirements for all high priority residential activities to reduce the discharge of pollutants in urban runoff to the MEP.

- (2) For residential activities tributary to CWA section 303(d) impaired water bodies that generate pollutants for which the waterbody is impaired, each Permittee shall designate additional BMPs to target that pollutant. Each Permittee shall implement, or require implementation of, additional controls for high priority residential activities within or directly adjacent to or discharging directly to receiving waters within ESAs as necessary to comply with this Order.
- (3) Each Permittee shall implement, or require implementation of, the designated minimum BMPs for the high priority residential activities identified pursuant to Requirement H.3.b. above. If a particular minimum BMP is infeasible for any specific site/source, each Permittee shall require implementation of other equivalent BMPs. Each Permittee shall also implement, or require implementation of, any additional BMPs necessary to comply with this Order.
- (4) Within 365 days from the date of this Order, each Permittee shall notify residents of the applicable minimum BMP requirements, and a description of the local codes or ordinances requiring compliance with reducing the discharge of pollutants in runoff to the MEP.

d) Enforcement of Residential Areas and Activities

Each Permittee shall enforce its storm water ordinance for residential activities as necessary to maintain compliance with this Order.

I. EDUCATION

Each Permittee shall implement an Education Component using all media as appropriate to (1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. At a minimum the education component shall address the following target communities:

1. Municipal Departments and Personnel
2. Construction Site Owners and Developers
3. Industrial Owners and Operators
4. Commercial Owners and Operators
5. Residential Community, General Public, and School Children
6. Quasi-Governmental Agencies/Districts (i.e., educational institutions, water districts, sanitation districts, etc.)

J. ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

Each Permittee shall implement an Illicit Discharge Detection and Elimination program containing measures to actively seek and eliminate illicit discharges and connections. At a minimum the Illicit Discharge Detection and Elimination program shall address:

1. Illicit Discharges and Connections

Each Permittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Permittee in accordance with Section B of this Order.

2. Develop/Maintain MS4 Map

Each Permittee shall develop or obtain an up-to-date labeled map of its entire MS4 and the corresponding drainage areas within its jurisdiction. The use of a GIS is highly recommended. The accuracy of the MS4 map shall be confirmed and updated at least annually.

3. Illicit Discharge Monitoring

Each Permittee shall implement the Illicit Discharge Monitoring Program in accordance with Section II.B of the MRP to detect illicit discharges and connections.

4. Investigation/Inspection and Follow-Up

Each Permittee shall investigate and inspect any portion of its MS4 that, based on visual observations, monitoring results or other appropriate information, indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water (including non-prohibited discharge(s) identified in Section B of this Order). Each Permittee shall develop numeric criteria in accordance with section II.B.3. of the MRP to determine when follow-up actions will be necessary. Numeric criteria and follow-up procedures shall be described in each Permittees' Individual SWMP.

5. Elimination of Illicit Discharges and Connections

Each Permittee shall eliminate all illicit discharges, illicit discharge sources, and illicit connections as soon as possible after detection. Elimination measures may include an escalating series of enforcement actions for those illicit discharges that are not a serious threat to public health or the environment. Illicit discharges that are a serious threat to public health or the environment must be eliminated immediately.

6. Enforce Ordinances

Each Permittee shall implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. Each Permittee shall also implement and enforce its ordinance, orders, or other legal authority to eliminate detected illicit discharges and connections to its MS4.

7. Sewage Spill Prevention and Response

Each Permittee shall take appropriate actions to prevent, respond to, contain and cleanup sewage spills (including private laterals and failing septic systems) into the MS4 and to prevent the contamination of surface water, ground water and soil to the MEP. Appropriate actions may include the following:

- Develop and implement a mechanism to be notified of all sewage spills from private laterals and failing septic systems into the MS4;
- Coordinate sewage spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times;
- Require adequately sized and properly maintained private property sewerage systems, such as at residential and commercial complexes;
- Require proper connections of private laterals to the public sewer main;
- Require adequately-sized, and properly maintained grease control devices at food establishments which otherwise could result in sewer line grease blockages;

- Conduct municipal activities such as street repair or tree plantings in a manner that minimizes sewer line damages or root blockages;
 - Identify priority areas, produce maps and other information on systems obtained during development review;
 - Educate the public on measures to prevent sewage spills; and
 - Ensure that private sewer lines are inspected.
8. Facilitate Public Reporting of Illicit Discharges and Connections - Public Hotline

Each Permittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Permittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Permittee-specific or shared by Permittees. All storm water hotlines shall be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Permittees shall respond to and resolve each reported incident. All reported incidents, and how each was resolved, shall be summarized in each Permittee's Individual Annual Report.

9. Facilitate Disposal of Used Oil and Toxic Materials

Each Permittee shall facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation shall include educational activities, public information activities, and establishment of collection sites operated by the Permittee or a private entity. Neighborhood collection of household hazardous wastes is encouraged.

K. WATERSHED-BASED ACTIVITIES

1. Each Permittee shall collaborate with other Permittees to identify, address, and mitigate the highest priority water quality issues/pollutants in the Upper Santa Margarita Watershed.
2. Each Permittee shall collaborate with all other Permittees to develop and implement a Watershed SWMP for the Upper Santa Margarita Watershed. The Watershed SWMP shall, at a minimum, contain the following:
 - a) An accurate map of the Upper Santa Margarita Watershed (preferably in GIS format) that identifies all receiving waters, all CWA section 303(d) impaired receiving waters, existing and planned land uses, MS4s, major highways, jurisdictional boundaries, and industrial and commercial facilities, municipal sites, and residential areas.
 - b) A description of any interagency agreement, or other efforts, with non-Permittee owners of the MS4 (such as Caltrans, Native American Tribes, and school districts) to control the contribution of pollutants from one portion of the shared MS4 to another portion of the shared MS4;
 - c) An assessment of the water quality of all receiving waters in the watershed based upon (1) existing water quality data; and (2) results from the Receiving Waters and Illicit Discharge Monitoring Programs described in the MRP;
 - d) An identification and prioritization of major water quality problems in the watershed caused or contributed to by MS4 discharges and the likely source(s) of the problem(s);
 - e) An implementation time schedule of short and long-term recommended activities (individual and collective) needed to address the highest priority water quality problem(s) identified in Requirement K.2.d. above. For this section, "short-term activities" shall mean those activities

that are to be completed during the life of this Order and “long-term activities” shall mean those activities that are to be completed beyond the life of this Order;

- f) A watershed-based education program, which focuses on water quality issues specific to the Santa Margarita watershed;
 - g) A mechanism to facilitate collaborative “watershed-based” (i.e., natural resource-based) land use planning with neighboring local governments in the watershed.
 - h) A description of any other urban runoff management programs or activities being conducted collectively by the Permittees to address water quality issues;
 - i) A description of Permittee responsibilities for implementing the programs described in the Watershed SWMP;
 - j) The expenditures and funding sources for the area-wide and watershed-based activities and programs;
 - k) Standardized reporting formats developed collectively by the Permittees, as specified in Requirement M.1;
 - l) Short-term strategy for assessing the effectiveness of the activities and programs implemented as part of the Watershed SWMP. The short-term assessment strategy shall identify methods to assess program effectiveness and include specific direct and indirect performance measurements that will track the immediate progress and accomplishments of the Watershed SWMP towards improving receiving water quality impacted by urban runoff discharges. The short-term strategy shall also discuss the role of monitoring data collected by the Permittees in substantiating or refining the assessment; and
 - m) Long-term strategy for assessing the effectiveness of the Watershed SWMP. The long-term assessment strategy shall identify specific direct and indirect performance measurements that will track the long-term progress of the Watershed SWMP towards achieving improvements in receiving water quality impacted by urban runoff discharges. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, receiving water quality monitoring, and achievement of measurable goals. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.
3. Permittees shall, as appropriate, participate in watershed management efforts to address storm water quality issues within the entire Santa Margarita Watershed, including efforts conducted by other entities in the watershed, such as San Diego County, U.S. Marine Corps Base Camp Pendleton, Native American tribes, and other state, federal, and local agencies.
4. At least once a year, all Permittees shall meet to review and assess available water quality data (from the MRP and other reliable sources), assess program effectiveness, and to review and update the Watershed SWMP.

L. MONITORING AND REPORTING PROGRAM

Pursuant to CWC section 13267, the Permittees shall comply with all requirements contained in the MRP.

M. PRINCIPAL PERMITTEE RESPONSIBILITIES

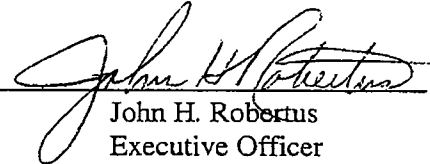
The Principal Permittee shall, at a minimum:

1. Coordinate the joint development by all of the Permittees of standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be submitted to the SDRWQCB for review as part of the SWMP. The standardized format(s) shall be used by all Permittees and shall include protocols for electronic reporting.
2. Integrate individual Permittee documents and reports required under this Order into single unified documents and reports for submittal to the SDRWQCB as described below. If a reporting date falls on a non-working day or State holiday, then the report is to be submitted on the following working day.
 - a) SWMP – The Principal Permittee shall submit the SWMP in its entirety to the SDRWQCB within 365 days of the adoption of this Order. The Principal Permittee shall be responsible for preparing the Watershed SWMP and its Individual SWMP. The Principal Permittee shall also be responsible for collecting and assembling the Individual SWMPs describing the activities and programs to be implemented by each individual Permittee.
 - b) MRP - The Principal Permittee shall submit the SWMP Annual Reports and the Monitoring Program Annual Reports in accordance with MRP No. R9-2004-001. The Principal Permittee shall be responsible for producing the Watershed SWMP Annual Report as well as its Individual Annual Report, and for collecting and assembling the Individual SWMP Annual Reports covering the activities conducted by each Permittee. The Principal Permittee shall also be responsible for coordinating the implementation of and reporting on the Receiving Waters Monitoring Program, described in sections II.A and III.B of the MRP.
 - c) Interagency Agreement - The Principal Permittee shall submit a copy of the Interagency Agreement to the SDRWQCB, if and when the agreement is updated.

N. STANDARD PROVISIONS

1. Each Permittee shall comply with the standard provisions contained in **Attachment B** of this Order. This includes 24 hour/5day reporting requirements for any instance of non-compliance with this Order as described in Section 1.1.6 of **Attachment B**.
2. All documents submitted to the SDRWQCB pursuant to this Order, including but not limited to SWMP documents, annual reports, monitoring reports, and SUSMPs, shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement.
3. All plans, reports and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified) and shall be an enforceable part of this Order upon submission to the SDRWQCB. All submittals by Permittees must be adequate to implement the requirements of this Order.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on July 14, 2004.


John H. Robertus
Executive Officer

ATTACHMENT A
BASIN PLAN PROHIBITIONS

California Water Code (CWC) section 13243 provides that a California Regional Water Quality Control Board (RWQCB), in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by section 13050(c) of the CWC, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the SDRWQCB.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in CWC section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in CWC section 13264 is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in CWC section 13376) is prohibited.
4. Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless the SDRWQCB issues a NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Department of Health Services and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the SDRWQCB. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the RWQCB.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the SDRWQCB.
8. Any discharge to a MS4 that is not composed entirely of "*storm water*" is prohibited unless authorized by the SDRWQCB. [The federal regulations, 40 CFR 122.26 (b) (13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26 (b) (2) defines an illicit discharge as any discharge to a MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities. [40 CFR 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a MS4 is prohibited.
10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in CWC section 13264, is prohibited.
11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the SDRWQCB.
14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.

ATTACHMENT B
STANDARD PROVISIONS

1. FEDERAL NPDES STANDARD PROVISIONS [40 CFR 122.41]

- (a) *Duty to comply* [40 CFR 122.41(a)]. The permittee must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the Order has not yet been modified to incorporate the requirement.
- (1) The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the CWA toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the Order has not yet been modified to incorporate the requirement.
 - (2) The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
 - (3) Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.

- (b) *Duty to reapply* [40 CFR 122.41(b)]. If the permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the permittee must apply for and obtain a new order.
- (c) *Need to halt or reduce activity not a defense* [40 CFR 122.41(c)]. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.
- (d) *Duty to mitigate* [40 CFR 122.41(d)]. The permittee shall take all reasonable steps to minimize or prevent any discharge or prevent any discharge or sludge use or disposal in violation of this Order which has a reasonable likelihood of adversely affecting human health or the environment.
- (e) *Proper operation and maintenance* [40 CFR 122.41(e)]. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the discharger only when the operation is necessary to achieve compliance with the conditions of this Order.
- (f) *Permit actions* [40 CFR 122.41(f)]. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
- (g) *Property rights* [40 CFR 122.41(g)]. This Order does not convey any property rights of any sort or any exclusive privilege.
- (h) *Duty to provide information* [40 CFR 122.41(h)]. The permittee shall furnish to the Director, within a reasonable time, any information which the SDRWQCB may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. The permittee shall also furnish to the SDRWQCB upon request, copies of records required to be kept by this Order.
- (i) *Inspection and entry* [40 CFR 122.41(i)]. The permittee shall allow the SDRWQCB, or an authorized representative (including an authorized contractor acting as a representative of the SDRWQCB or EPA), upon presentation of credentials and other documents as may be required by law, to:
 - (1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - (4) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the CWA, any substances or parameters at any location.
- (k) *Signatory requirement* [40 CFR 122.41(k)]
 - (1) All applications, reports, or information submitted to the SDRWQCB shall be signed and certified (see 40 CFR 122.22)

- (2) The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(I) *Reporting requirements* [40 CFR 122.41(I)]

- (1) *Planned changes.* The permittee shall give notice to the SDRWQCB as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
- i) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants, which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).
 - iii) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing Order, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
- (2) *Anticipated noncompliance.* The permittee shall give advance notice to the SDRWQCB of any planned changes in the permitted facility or activity, which may result in noncompliance with permit requirements.
- (3) *Transfers.* This permit is not transferable to any person except after notice to the SDRWQCB. The SDRWQCB may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the CWA. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)
- (4) *Monitoring reports.* The applicable provisions from 40 CFR 122.41(I)(4) are contained in the Monitoring and Reporting Program for this Order.
- (5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (6) *Twenty-four hour reporting.*
- i) The permittee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
 - ii) The following shall be included as information, which must be reported within 24 hours under this paragraph.

- (A) Any unanticipated bypass which exceeds any effluent limitation in the Order (See 40 CFR 122.41(g)).
 - (B) Any upset which exceeds any effluent limitation in the Order.
 - (C) Violation of a maximum daily discharge limitation for any of the pollutants listed by the SDRWQCB in the permit to be reported within 24 hours. (See 40 CFR 122.44(g)).
- iii) The SDRWQCB may waive the written report on a case-by-case basis for reports under paragraph (1)(6)(ii) of this section if the oral report has been received within 24 hours.
- (7) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.
- (8) *Other information.* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the SDRWQCB, it shall promptly submit such facts or information.
- (m) *Bypass* [40 CFR 122.41(m)]

(1) Definitions

- i) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - ii) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (2) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations of this Order or the concentrations of pollutants set forth in Ocean Plan Table A or Table B to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (m)(3) and (m)(4) of this provision.

(3) Notice

- i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten days before the date of the bypass.
- ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (1)(6) of this section (24-hour notice).

(4) Prohibition of Bypass

- i) Bypass is prohibited, and the SDRWQCB may take enforcement action against the permittee for bypass, unless:
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

- (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (C) The permittee submitted notices as required under paragraph (m)(3) of this section.
- ii) The SDRWQCB may approve an anticipated bypass, after considering its adverse effects, if the SDRWQCB determines that it will meet the three conditions listed above in paragraph (m)(4)(i) of this section.
- (n) *Upset* [40 CFR 122.41(n)]
- (1) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
 - (2) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (n)(3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - (3) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii) The permitted facility was at the time being properly operated;
 - iii) The permittee submitted notice of the upset as required in section (1)(6)(ii)(B) of this section (24-hour notice); and
 - iv) The permittee complied with any remedial measures required under paragraph (d) of this section.
 - (4) Burden of Proof. In any enforcement proceeding the discharger seeking to establish the occurrence of an upset has the burden of proof.

2. SIGNATORY REQUIREMENTS [40 CFR 122.22]

- (a) *Applications* [40 CFR 122.22(a)(3)]. All applications shall be signed by either a principal executive officer or ranking elected official.
- (b) *Reports* [40 CFR 122.22(b)]. All reports required by this Order, and other information requested by the SDRWQCB shall be signed by a person described in paragraph a. of this reporting requirement, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described in section (a) above;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and,
 - (3) The written authorization is submitted to the SDRWQCB.
- (c) *Changes to authorization.* If an authorization under paragraph (b) of this reporting requirement is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. of this reporting requirement must be submitted to the SDRWQCB prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) *Certification.* Any person signing a document under paragraph (a) or (b) of this section shall make the following 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."

3. ADDITIONAL STANDARD PROVISIONS

- (a) *Municipal separate storm sewer systems* [40 CFR 122.42(c)]. The operator of a large or medium municipal separate storm sewer system or a municipal separate storm sewer that has been designated by the Director under 40 CFR 122.26(a)(1)(v) must submit an annual report by the anniversary of the date of the issuance of the permit for such system. The report shall include:
- (1) The status of implementing the components of the storm water management program that are established as permit conditions;
 - (2) Proposed changes to the storm water management programs that are established as permit conditions. Such proposed changes shall be consistent with 40 CFR 122.26(d)(2)(iii); and
 - (3) Revisions, if necessary, to the assessment of controls and the fiscal analysis reported in the permit application under 40 CFR 122.26(d)(2)(iv) and 40 CFR 122.26(d)(2)(v);
 - (4) A summary of data, including monitoring data, that is accumulated throughout the reporting year;
 - (5) Annual expenditures and budget for year following each annual report;
 - (6) A summary describing the number and nature of enforcement actions, inspections, and public education programs; and
 - (7) Identification of water quality improvements or degradation.
- (b) *Storm water discharges* [40 CFR 122.42(d)]. The initial permits for discharges composed entirely of storm water issued pursuant to 40 CFR 122.26(e)(7) shall require compliance with the conditions of

the permit as expeditiously as practicable, but in no event later than three years after the date of issuance of the permit.

- (c) *Discharge is a privilege* [CWC section 13263(g)]. No discharge of waste into the waters of the State, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the State are privileges, not rights.
- (d) *Review and revision of Order* [CWC section 13263(e)]. Upon application by any affected person, or on its own motion, the SDRWQCB may review and revise this permit.
- (e) *Termination or modification of Order* [CWC section 13381]. This permit may be terminated or modified for causes, including, but not limited to, all of the following:
 - (8) Violation of any condition contained in this Order;
 - (9) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts.
 - (10) A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- (f) *Transfers*. When this Order is transferred to a new owner or operator, such requirements as may be necessary under the CWC may be incorporated into this Order.
- (g) *Conditions not stayed*. The filing of a request by the permittee for modification, revocation and reissuance, or termination of this Order, or a notification of planned change in or anticipated noncompliance with this Order does not stay any condition of this Order.
- (h) *Availability*. A copy of this Order shall be kept at a readily accessible location and shall be available to on-site personnel at all times.
- (i) *Duty to minimize or correct adverse impacts*. The permittees shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncompliance.
- (j) *Responsibilities, liabilities, legal action, penalties* [CWC sections 13385 and 13387]. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided for under the CWA.

Nothing in this Order shall be construed to protect the discharger from its liabilities under federal, state, or local laws.

Except as provided for in 40CFR 122.41(m) and (n), nothing in this Order shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the discharger is or may be subject to under Section 311 of the CWA.

Nothing in this Order shall be construed to preclude institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the CWA.

- (k) *Noncompliance.* Any noncompliance with this Order constitutes violation of the CWC and is grounds for denial of an application for modification of the Order (also see 40 CFR 122.41(a).
- (l) *Director.* For purposes of this Order, the term "Director" used in parts of 40 CFR incorporated into this Order by reference and/or applicable to this Order shall have the same meaning as the term "SDRWQCB" used elsewhere in this Order, except that in 40 CFR 122.41(h) and (I), "Director" shall mean "SDRWQCB, SWRCB, and EPA."
- (m) The SDRWQCB has, in prior years, issued a limited number of individual NPDES permits for non-storm water discharges to MS4s. The SDRWQCB or SWRCB may in the future, upon prior notice to the Permittee(s), issue an NPDES permit for any non-storm water discharge (or class of non-storm water discharges) to a MS4. Permittees may prohibit any non-storm water discharge (or class of non-storm water discharges) to a MS4 that is authorized under such separate NPDES permits.
- (n) *Effective date.* This Order shall become effective on the date of its adoption provided the EPA has no objection. If the EPA objects to its issuance, this Order shall not become effective until such objection is withdrawn. This Order supersedes Order No. R9-98-02 upon the effective date of this Order.
- (o) *Expiration.* This Order expires on **July 14, 2009**.
- (p) *Continuation of expired order* [23 CCR 2235.4]. After this Order expires, the terms and conditions of this Order are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on the continuation of expired permits (40 CFR 122.6) are complied with.
- (q) *Applications.* Any application submitted by a permittee for reissuance or modification of this Order shall satisfy all applicable requirements specified in federal regulations as well as any additional requirements for submittal of a Report of Waste Discharge specified in the CWC and the CCR.
- (r) *Confidentiality.* Except as provided for in 40 CFR 122.7, no information or documents submitted in accordance with or in application for this Order will be considered confidential, and all such information and documents shall be available for review by the public at the SDRWQCB office.
- (s) *Severability.* The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.
- (t) *Report submittal.* The discharger shall submit reports and provide notifications as required by this Order to the following:

NORTHERN WATERSHED PROTECTION UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 SKY PARK COURT, SUITE 100
SAN DIEGO CA 92123-4340
Telephone: (858) 467-2952 Fax: (858) 571-6972

EUGENE BROMLEY
US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
PERMITS ISSUANCE SECTION (W-5-1)

75 HAWTHORNE STREET
SAN FRANCISCO CA 94105

Unless otherwise directed, the discharger shall submit one hard copy for the official record and one electronic copy of each report required under this Order to the SDRWQCB and one hard copy to the EPA.

ATTACHMENT C

DEFINITIONS

Anthropogenic Litter – Trash generated from human activities, not including sediment.

Basin Plan – Water Quality Control Plan, San Diego Basin, Region 9, and amendments, developed by the SDRWQCB.

BAT (Best Available Technology) – The technology-based standard established by congress in CWA section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices, or BMPs. For example, secondary treatment (or the removal of 85% suspended solids and BOD) is the BAT for suspended solid and BOD removal from a sewage treatment plant. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily.

The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the EPA Administrator. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

Beneficial Uses - The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals “Beneficial Uses” of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the waters of the State on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. “Beneficial Uses” are equivalent to “Designated Uses” under federal law. [CWC section 13050(f)].

Bioaccumulate - The progressive accumulation of contaminants in the tissues of organisms through any route including respiration, ingestion, or direct contact with contaminated water, sediment, pore water, or dredged material to a higher concentration than in the surrounding environment. Bioaccumulation occurs with exposure and is independent of the tropic level.

Bioassessment - The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bioassessment is the collection and analysis of samples of the benthic macroinvertebrate community together with physical/habitat quality measurements associated with the sampling site and the watershed to evaluate the biological integrity of a water body.

Biological Integrity - Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: “A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region.” Also referred to as ecosystem health.

(BMP) Best Management Practices - Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the U.S. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Clean Water Act Section 303(d) Impaired Water Body - An impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA.

Construction Site – Any project requiring a local grading or building permit, including projects requiring coverage under the General Construction Permit, that involves soil disturbing activities. Soil disturbing activities include clearing, grading, disturbances to ground such as stockpiling, and excavation.

Contamination - As defined in the Porter-Cologne Water Quality Control Act, contamination is “an impairment of the quality of waters of the State by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. ‘Contamination’ includes any equivalent effect resulting from the disposal of waste whether or not waters of the State are affected.”

CWA – Federal Clean Water Act

CWC – California Water Code

Designated Waste - A “nonhazardous waste which consists of pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of waters of the State” [CCR Title 27, chapter 3, subchapter 2, article 2, section 20210; CWC section 13173].

Development Projects - New development or redevelopment with land disturbing activities; structural development, including construction or installation of a building or structure, the creation of impervious surfaces; and land subdivision.

Dry Season – May 1 through September 30 of each year.

Effluent Limitations – any restriction imposed on quantities, discharge rates, and concentrations of pollutants, which are discharged from point sources into waters of the State.

Erosion – When land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

ESA (Environmentally Sensitive Area) – Areas “in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would easily be disturbed or degraded by human activities and developments” (California Public Resources Code section 30107.5). ESAs subject to urban runoff requirements include but are not limited to all CWA section 303(d) impaired water bodies, areas designated as Areas of Special Biological Significance by the SWRCB (Basin Plan); water bodies designated with the RARE beneficial use by the SWRCB (Basin Plan); areas within the Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) plan area that contain rare or especially valuable plant or animal life or their habitat; and any other equivalent environmentally sensitive areas which the Permittees have identified.

GIS – Geographic Information System

Grading - The cutting and/or filling of the land surface to a desired slope or elevation.

Hazardous Material – Any substance that poses a threat to human health or the environment due to its toxicity, corrosiveness, ignitability, explosive nature or chemical reactivity. These also include materials named by the EPA in 40 CFR 116 to be reported if a designated quantity of the material is spilled into the waters of the U.S. or emitted into the environment.

Hazardous Waste - Hazardous waste is defined as “any waste which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code” [CCR Title 22, Division 4.5, Chapter 11, Article 1].

Household Hazardous Waste – Paints, cleaning products, and other wastes generated during home improvement or maintenance activities.

Illicit Connection – Any connection to the MS4 that conveys an illicit discharge.

Illicit Discharge - Any discharge to the MS4 that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities [40 CFR 122.26(b)(2)].

Inert Waste - Material that “does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste” [CCR Title 27, Chapter 3, Subchapter 2, Article 2, Section 20230].

MEP (Maximum Extent Practicable) – The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their SWMP. Their total collective and individual activities conducted pursuant to the SWMP becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance). In the absence of a proposal acceptable to the SDRWQCB, the SDRWQCB defines MEP.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

“To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

- a. *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*

- b. *Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
- c. *Public Acceptance: Does the BMP have public support?*
- d. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
- e. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.”

MS4 (Municipal Separate Storm Sewer System) – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.

NOI – Notice of Intent

Non-hazardous Solid Waste - All putrescible and nonputrescible solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes and other discarded solid or semi-solid waste; provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentration which exceed applicable water quality objectives or could cause degradation of waters of the state.” [CCR Title 27, Chapter 3, Subchapter 2, Article 2, Section 20220]

Non-Storm Water - All discharges to and from a MS4 that do not originate from precipitation events (i.e., all discharges from a MS4 other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges.

NPDES (National Pollution Discharge Elimination System) - The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA.

NPS (Nonpoint Source) – Diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non Point Sources include but are not limited to urban, agricultural, or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. NPS pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes, and coastal waters or introduces them into ground water.

Nuisance - As defined in the Porter-Cologne Water Quality Control Act a nuisance is “anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes.”

Order – Order No. R9-2004-001 (NPDES No. CAS0108766)

Person - A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof [40 CFR 122.2].

Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Pollutant - Any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution - As defined in the Porter-Cologne Water Quality Control Act: “the alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects the either of the following: 1) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses.” Pollution may include contamination.

Pollutants of Concern – All pollutants for which water bodies are listed as impaired under CWA section 303(d), all pollutants associated with the land use type of a development, and all pollutants commonly associated with urban runoff. Pollutants commonly associated with urban runoff include total suspended solids; sediment; pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc, and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers); oxygen-demanding substances (decaying vegetation, animal waste, and anthropogenic litter).

Pollution Prevention - Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control BMPs, treatment control BMPs, or disposal.

Post-Construction BMPs - A subset of BMPs including structural and non-structural controls which detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the final functional life of developments.

Principal Permittee – Riverside County Flood Control and Water Conservation District

Priority Development Projects – New development and redevelopment projects listed in Requirement F.2.b.(1) of tentative Order No. R9-2004-001.

Receiving Waters – Waters of the U.S.

RWLs (Receiving Water Limitations) - Waste discharge requirements issued by the SDRWQCB typically include both: (1) "Effluent Limitations" (or "Discharge Limitations") that specify the technology-based or water-quality-based effluent limitations; and (2) "Receiving Water Limitations" that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the "Receiving Water Limitations" provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Sediment - Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Shared Treatment BMP - BMPs used by multiple developments to infiltrate, filter, or treat the required volume or flow prior to discharge to a receiving water. This could include, for example, a treatment BMP at the end of an enclosed storm drain that collects runoff from several commercial developments.

Source Control BMP – Land use or site planning practices, or structural or nonstructural measures that aim to prevent urban runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between pollutants and urban runoff.

Storm Water – Per 40 CFR 122.26(b)(13), means storm water runoff, snowmelt runoff and surface runoff and drainage.

SUSMP (Standard Urban Storm Water Mitigation Plan) – A plan developed to mitigate the impacts of urban runoff from Priority Development Projects in accordance with Requirement F.2.b. of tentative Order No. R9-2004-001.

SWMP (Storm Water Management Plan) – A written description of the specific urban runoff management measures and programs that each Permittee will implement to reduce the discharge of pollutants in urban runoff to the MEP and to comply with Order No. R9-2004-001.

TMDL (Total Maximum Daily Load) - The maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under CWA section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Toxicity - Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives

for toxicity provided in the Basin Plan state in part... *“All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life... The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge.”*

Treatment Control BMP – Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

Urban Runoff - All flows in a storm water conveyance system and consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water illicit discharges (dry weather flows).

Waste - As defined in CWC Section 13050(d), “waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.”

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system that applies to solid and semi-solid waste, which cannot be discharged directly or indirectly to water of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, non-hazardous solid waste, and inert waste.

Water Quality Objective - Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [CWC section 13050 (h)]. California’s water quality objectives are established by the SWRCB and RWQCBs in the Water Quality Control Plans.

Water Quality Standards - The beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.) of water and the water quality objectives necessary to protect those uses.

Waters of the State - Any water, surface or underground, including saline waters within the boundaries of the State [CWC section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a MS4 is always considered to be a Waters of the State.

Waters of the United States - As defined in 40 CFR 122.2, the Waters of the U.S. are defined as: “(a) **All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;** (b) All interstate waters, including interstate “wetlands;” (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition: (e) **Tributaries of waters identified in paragraphs (a) through (d) of this definition;** (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this

definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA."

Watershed - That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

WDRs – Waste Discharge Requirements

Wet Season – October 1 through April 30 of each year.

ATTACHMENT D

INDIVIDUAL SWMP CONTENTS

Pursuant to Requirement E.1.a. of tentative Order No. R9-2004-001, each Permittee shall develop an Individual SWMP that describes their specific urban runoff management programs and activities that will be implemented to comply with the Order. An individual SWMP that addresses the items listed below would provide a complete description of the programs and activities the Permittee plans to implement to comply with the Order and to reduce pollutants in urban runoff to the MEP. In the event that a specific component is not applicable to a Permittee, the Permittee shall provide an explanation of non-applicable programs with the SWMP submittal and does not need to provide the information requested below in that particular section of their Individual SWMP.

1. Administrative and Legal Procedures

- a) Identification of all departments within the jurisdiction that conduct urban runoff related activities, and their roles and responsibilities under the Order. Include an up-to-date organizational chart specifying these departments and key personnel;
- b) Citation of urban runoff related ordinances and the reasons they are enforceable;
- c) Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of the Order;
- d) Description of how these ordinances are implemented and appealed; and
- e) Description of whether the Permittee can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

2. Development Planning (Section F)

- a) A description of the water quality and watershed protection principles that have been or will be included in the Permittee's General plan, and a time schedule where modifications are planned, if applicable;
- b) A description of the development project approval process and how it ensures that urban runoff from new development and redevelopment will be reduced to the MEP, that post-development runoff volumes and velocities will be controlled, and that water quality objectives will not be violated throughout the life of the project;
- c) A final SUSMP document that meets the requirements specified in Section F.2.b. of the Order, and a copy of the ordinance (amended or new) that gives the Permittee the authority to implement and enforce the SUSMP. The SUSMP may be submitted under separate cover as an attachment to the SWMP;
- d) A description of the Permittee's current environmental review process and how it addresses impacts to water quality and appropriate mitigation measures. If the Permittee plans to modify the process during the permit term, a time schedule for modifications shall be included;
- e) A description of education efforts related to development and how they will be implemented; and
- f) A description of the measurable goals that will be used to assess the effectiveness of this program component.

3. Construction Component (Section G)

- a) A description of which pollution prevention methods will be required for implementation, and the steps that will be taken to ensure implementation;
- b) Updated grading ordinances, including adequate enforcement mechanisms;
- c) A description of the modified construction and grading approval process;
- d) Updated construction and grading project requirements in local grading and construction permits;
- e) A completed inventory of all construction sites;
- f) A list and description of minimum BMPs that will be implemented, or required to be implemented;
- g) A description of the steps that will be taken to ensure the implementation of prescribed BMPs at all construction sites;
- h) A description of planned inspection frequencies;
- i) A description of inspection procedures;
- j) A description of enforcement mechanisms and steps that will be used;
- k) A description of the construction education program and how it will be implemented; and
- l) A description of the measurable goals that will be used to assess the effectiveness of this program component.

4. Municipal Component (Section H.1)

- a) A description of which pollution prevention methods will be required for implementation, and the steps taken to ensure implementation;
- b) A completed inventory of all municipal facilities and activities;
- c) A description of which BMPs will be implemented, or required to be implemented, for municipal facilities and activities;
- d) A description of steps that will be taken to ensure the implementation of prescribed BMPs at municipal facilities and activities;
- e) A description of municipal maintenance activities and schedules;
- f) A description of the management strategy for pesticides, herbicides, and fertilizer use;
- g) A description of inspection procedures;
- h) A description of enforcement mechanisms and how they will be used; and
- i) A description of the measurable goals that will be used to assess the effectiveness of this program component.

5. Industrial/Commercial Facilities Component (Section H.2)

- a) A description of which pollution prevention methods will be required for implementation, and the steps that will be taken to ensure implementation;
- b) A completed and prioritized inventory of all industrial/commercial facilities that could contribute a significant pollutant load to the MS4;
- c) A list of minimum BMPs that will be implemented, or required to be implemented, for each facility type or pollutant-generating activity;

- d) A description of the steps that will be taken to ensure the implementation of prescribed BMPs at industrial/commercial facilities, including notification procedures;
- e) A description of inspection procedures;
- f) A description of enforcement mechanisms and how they will be used;
- g) A description of training efforts; and
- h) A description of the measurable goals that will be used to assess the effectiveness of this program component.

6. Residential Component (Section H.3)

- a) A description of which pollution prevention methods will be encouraged for implementation, and the steps that will be taken to encourage implementation;
- b) A list of residential activities that have been identified as high priority;
- c) A list of minimum BMPs that will be implemented, or required to be implemented, for high priority residential activities;
- d) A description of the steps that will be taken to ensure the implementation of prescribed BMPs for high priority residential activities;
- e) A description of enforcement mechanisms and how they will be used; and
- f) A description of the measurable goals that will be used to assess the effectiveness of this program component.

7. Education Component (Section I)

- a) A description of the content, form, and frequency of education efforts for each target community; and
- b) A description of the measurable goals that will be used to assess the effectiveness of the public education program.

8. Illicit Discharge Detection and Elimination Component (Section J)

- a) A description of the program to actively seek and eliminate illicit discharges and illicit connections;
- b) An Illicit Discharge Monitoring Program, in accordance with the Monitoring and Reporting Program, to be conducted to detect illicit discharges and illicit connections;
- c) A description of investigation and inspection procedures to follow up on dry weather monitoring results or other information which indicate potential for illicit discharges and illicit connections;
- d) A description of procedures to promptly eliminate detected illicit discharges and illicit connections;
- e) A description of enforcement mechanisms and how they will be used;
- f) A description of the mechanism to receive notification of spills;
- g) A description of efforts to facilitate public reporting of illicit discharges and connections, including a public hotline;
- h) A description of efforts to facilitate proper disposal of used oil and other toxic materials; and

- i) A description of measurable goals that will be used to assess the effectiveness of this program component.

9. Public Participation Component (Section E.3)

A description of how public participation will be included in the development and implementation of each Permittee's Individual SWMP.

10. Assessment of Individual SWMP Effectiveness Component

As part of its Individual SWMP, each Permittee shall develop a long-term strategy for assessing the effectiveness of its Individual SWMP. The long-term assessment strategy shall, at a minimum, include the following:

- a) An assessment of the progress towards meeting the measurable goals identified in each program component;
- b) An assessment of Illicit Discharge and Receiving Water monitoring data; and
- c) An assessment of overall program effectiveness.

11. Fiscal Analysis Component

Each Permittee shall secure the resources necessary to meet the requirements of the Order. As part of its Individual SWMP, each Permittee shall describe and analyze the capital and operation and maintenance expenditures necessary to accomplish the activities required in the Order, and a description of the source of funds the Permittee proposes to use to meet those expenditures.

12. Fire Fighting

A description of a program to reduce pollutants from non-emergency fire fighting flows identified by the Permittee to be significant sources of pollutants.

**California Regional Water Quality Control Board
San Diego Region**

**Waste Discharge Requirements for
Discharges from the
Municipal Separate Storm Sewer Systems (MS4s)
Draining the County of Riverside, the Incorporated
Cities of Riverside County, and the Riverside
County Flood Control and Water Conservation
District within the San Diego Region**

**Order No. R9-2010-0016
NPDES No. CAS0108766**

November 10, 2010

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

9174 Sky Park Court, Suite 100, San Diego, California 92123-4340
Phone • (858) 467-2952 • Fax (858) 571-6972
<http://www.waterboards.ca.gov/sandiego>

To request copies of the Riverside County Municipal Storm Water Permit, please contact Ben Neill, Water Resources Control Engineer at (858) 467 – 2983, bneill@waterboards.ca.gov

Documents also are available at: <http://www.waterboards.ca.gov/sandiego>

Tab 3

33 U.S.C. § 1342(b)

(b) State permit programs

At any time after the promulgation of the guidelines required by subsection (i)(2) of section 1314 of this title, the Governor of each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each submitted program unless he determines that adequate authority does not exist:

(1) To issue permits which -

(A) apply, and insure compliance with, any applicable requirements of sections 1311, 1312, 1316, 1317, and 1343 of this title;

(B) are for fixed terms not exceeding five years; and

(C) can be terminated or modified for cause including, but not limited to, the following:

(i) violation of any condition of the permit;

(ii) obtaining a permit by misrepresentation, or failure to disclose fully all relevant facts;

(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

(D) control the disposal of pollutants into wells;

(2)

(A) To issue permits which apply, and insure compliance with, all applicable requirements of section 1318 of this title; or

(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 1318 of this title;

(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing;

(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require the identification in terms of character and volume of pollutants of any significant source introducing pollutants subject to pretreatment standards under section 1317(b) of this title into such works and a program to assure compliance with such pretreatment standards by each such source, in addition to adequate notice to the permitting agency of

(A) new introductions into such works of pollutants from any source which would be a new source as defined in section 1316 of this title if such source were discharging pollutants,

(B) new introductions of pollutants into such works from a source which would be subject to section 1311 of this title if it were discharging such pollutants, or

(C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 1284(b), 1317, and 1318 of this title.

33 U.S.C. § 1342(p)

(p) Municipal and industrial stormwater discharges

(1) General rule

Prior to October 1, 1994, the Administrator or the State (in the case of a permit program approved under this section) shall not require a permit under this section for discharges composed entirely of stormwater.

(2) Exceptions

Paragraph (1) shall not apply with respect to the following stormwater discharges:

(A) A discharge with respect to which a permit has been issued under this section before February 4, 1987.

(B) A discharge associated with industrial activity.

(C) A discharge from a municipal separate storm sewer system serving a population of 250,000 or more.

(D) A discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000.

(E) A discharge for which the Administrator or the State, as the case may be, determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(3) Permit requirements

(A) Industrial discharges

Permits for discharges associated with industrial activity shall meet all applicable provisions of this section and section 1311 of this title.

(B) Municipal discharge

Permits for discharges from municipal storm sewers -

(i) may be issued on a system- or jurisdiction-wide basis;

(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and

(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.



DEERING'S CALIFORNIA CODES ANNOTATED
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*** This document is current through urgency Chapter 745 & Extra. Sess. Ch. 16 ***
of the 2011 Session, and the 2011 Governor's Reorganization Plan No. 1.

WATER CODE
Division 7. Water Quality
Chapter 2. Definitions

GO TO CALIFORNIA CODES ARCHIVE DIRECTORY

Cal Wat Code § 13050 (2011)

§ 13050. Terms used in this division

As used in this division:

(a) "State board" means the State Water Resources Control Board.

(b) "Regional board" means any California regional water quality control board for a region as specified in Section 13200.

(c) "Person" includes any city, county, district, the state, and the United States, to the extent authorized by federal law.

(d) "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

(e) "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state.

(f) "Beneficial uses" of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

(g) "Quality of the water" refers to chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use.

(h) "Water quality objectives" means the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

(i) "Water quality control" means the regulation of any activity or factor which may affect the quality of the waters of the state and includes the prevention and correction of water pollution and nuisance.

(j) "Water quality control plan" consists of a designation or establishment for the waters within a specified area of all of the following:

(1) Beneficial uses to be protected.

(2) Water quality objectives.

(3) A program of implementation needed for achieving water quality objectives.

(k) "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(l)

(1) "Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

(A) The waters for beneficial uses.

(B) Facilities which serve these beneficial uses.

(2) "Pollution" may include "contamination."

(m) "Nuisance" means anything which meets all of the following requirements:

(1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.

(2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

(3) Occurs during, or as a result of, the treatment or disposal of wastes.

(n) "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefor considered a valuable resource.

(o) "Citizen or domiciliary" of the state includes a foreign corporation having substantial business contacts in the state or which is subject to service of process in this state.

(p)

(1) "Hazardous substance" means either of the following:

(A) For discharge to surface waters, any substance determined to be a hazardous substance pursuant to Section 311(b)(2) of the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.).

(B) For discharge to groundwater, any substance listed as a hazardous waste or hazardous material pursuant to Section 25140 of the Health and Safety Code, without regard to whether the substance is intended to be used, reused, or discarded, except that "hazardous substance" does not include any substance excluded from Section 311(b)(2) of the Federal Water Pollution Control Act because it is within the scope of Section 311(a)(1) of that act.

(2) "Hazardous substance" does not include any of the following:

(A) Nontoxic, nonflammable, and noncorrosive stormwater runoff drained from underground vaults, chambers, or manholes into gutters or storm sewers.

(B) Any pesticide which is applied for agricultural purposes or is applied in accordance with a cooperative agreement authorized by Section 116180 of the Health and Safety Code, and is not discharged accidentally or for purposes of disposal, the application of which is in compliance with all applicable state and federal laws and regulations.

(C) Any discharge to surface water of a quantity less than a reportable quantity as determined by regulations issued pursuant to Section 311(b)(4) of the Federal Water Pollution Control Act.

(D) Any discharge to land which results, or probably will result, in a discharge to groundwater if the amount of the discharge to land is less than a reportable quantity, as determined by regulations adopted pursuant to Section 13271, for substances listed as hazardous pursuant to Section 25140 of the Health and Safety Code. No discharge shall be deemed a discharge of a reportable quantity until regulations set a reportable quantity for the substance discharged.

(q)

(1) "Mining waste" means all solid, semisolid, and liquid waste materials from the extraction, beneficiation, and processing of ores and minerals. Mining waste includes, but is not limited to, soil, waste rock, and overburden, as de-

fined in *Section 2732 of the Public Resources Code*, and tailings, slag, and other processed waste materials, including cementitious materials that are managed at the cement manufacturing facility where the materials were generated.

(2) For the purposes of this subdivision, "cementitious material" means cement, cement kiln dust, clinker, and clinker dust.

(r) "Master recycling permit" means a permit issued to a supplier or a distributor, or both, of recycled water, that includes waste discharge requirements prescribed pursuant to Section 13263 and water recycling requirements prescribed pursuant to Section 13523.1.

HISTORY:

Added Stats 1969 ch 482 § 18, operative January 1, 1970. Amended Stats 1969 ch 800 § 2.5; Stats 1970 ch 202 § 1; Stats 1980 ch 877 § 1; Stats 1989 ch 642 § 2; Stats 1991 ch 187 § 1 (AB 673); Stats 1992 ch 211 § 1 (AB 3012); Stats 1995 ch 28 § 17 (AB 1247), ch 847 § 2 (SB 206); Stats 1996 ch 1023 § 429 (SB 1497), effective September 29, 1996.

NOTES:

Editor's Notes

The above section was enacted without a subdivision (k)(B)(1).

Amendments:

1969 Amendment:

Added the last sentence in subd (c).

1970 Amendment:

(1) Added ", including such waste placed within containers of whatever nature prior to, and for purposes of, disposal" at the end of subd (d); and (2) substituted "aesthetic" for "esthetic" after "recreation;" in subd (f).

1980 Amendment:

Added subd (p).

1989 Amendment:

In addition to making technical changes, added (1) "all of the following:" in the introductory clause of subd (j); (2) "either of the following" in the introductory clause of subd (l); (3) "meets all of the following requirements" in the introductory clause of subd (m); and (4) added subd (q).

1991 Amendment:

Amended subd (n) by adding (1) "or 'recycled water' "; and (2) "and is therefor considered a valuable resource".



DEERING'S CALIFORNIA CODES ANNOTATED
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*** This document is current through urgency Chapter 745 & Extra. Sess. Ch. 16 ***
of the 2011 Session, and the 2011 Governor's Reorganization Plan No. 1.

WATER CODE
Division 7. Water Quality
Chapter 4. Regional Water Quality Control
Article 4. Waste Discharge Requirements

GO TO CALIFORNIA CODES ARCHIVE DIRECTORY

Cal Wat Code § 13260 (2011)

§ 13260. Reports; Fees; Recoverable Costs; Waiver; Exemptions

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

(d)

(1)

(A) Each person who is subject to subdivision (a) or (c) shall submit an annual fee according to a fee schedule established by the state board.

(B) The total amount of annual fees collected pursuant to this section shall equal that amount necessary to recover costs incurred in connection with the issuance, administration, reviewing, monitoring, and enforcement of waste discharge requirements and waivers of waste discharge requirements.

(C) Recoverable costs may include, but are not limited to, costs incurred in reviewing waste discharge reports, prescribing terms of waste discharge requirements and monitoring requirements, enforcing and evaluating compliance with waste discharge requirements and waiver requirements, conducting surface water and groundwater monitoring and modeling, analyzing laboratory samples, adopting, reviewing, and revising water quality control plans and state policies

for water quality control, and reviewing documents prepared for the purpose of regulating the discharge of waste, and administrative costs incurred in connection with carrying out these actions.

(D) In establishing the amount of a fee that may be imposed on a confined animal feeding and holding operation pursuant to this section, including, but not limited to, a dairy farm, the state board shall consider all of the following factors:

(i) The size of the operation.

(ii) Whether the operation has been issued a permit to operate pursuant to Section 1342 of Title 33 of the United States Code.

(iii) Any applicable waste discharge requirement or conditional waiver of a waste discharge requirement.

(iv) The type and amount of discharge from the operation.

(v) The pricing mechanism of the commodity produced.

(vi) Any compliance costs borne by the operation pursuant to state and federal water quality regulations.

(vii) Whether the operation participates in a quality assurance program certified by a regional water quality control board, the state board, or a federal water quality control agency.

(2)

(A) Subject to subparagraph (B), the fees collected pursuant to this section shall be deposited in the Waste Discharge Permit Fund, which is hereby created. The money in the fund is available for expenditure by the state board, upon appropriation by the Legislature, solely for the purposes of carrying out this division.

(B)

(i) Notwithstanding subparagraph (A), the fees collected pursuant to this section from stormwater dischargers that are subject to a general industrial or construction stormwater permit under the national pollutant discharge elimination system (NPDES) shall be separately accounted for in the Waste Discharge Permit Fund.

(ii) Not less than 50 percent of the money in the Waste Discharge Permit Fund that is separately accounted for pursuant to clause (i) is available, upon appropriation by the Legislature, for expenditure by the regional board with jurisdiction over the permitted industry or construction site that generated the fee to carry out stormwater programs in the region.

(iii) Each regional board that receives money pursuant to clause (ii) shall spend not less than 50 percent of that money solely on stormwater inspection and regulatory compliance issues associated with industrial and construction stormwater programs.

(3) A person who would be required to pay the annual fee prescribed by paragraph (1) for waste discharge requirements applicable to discharges of solid waste, as defined in *Section 40191 of the Public Resources Code*, at a waste management unit that is also regulated under Division 30 (commencing with *Section 40000 of the Public Resources Code*), shall be entitled to a waiver of the annual fee for the discharge of solid waste at the waste management unit imposed by paragraph (1) upon verification by the state board of payment of the fee imposed by *Section 48000 of the Public Resources Code*, and provided that the fee established pursuant to *Section 48000 of the Public Resources Code* generates revenues sufficient to fund the programs specified in *Section 48004 of the Public Resources Code* and the amount appropriated by the Legislature for those purposes is not reduced.

(e) Each person that discharges waste in a manner regulated by this section shall pay an annual fee to the state board. The state board shall establish, by regulation, a timetable for the payment of the annual fee. If the state board or a regional board determines that the discharge will not affect, or have the potential to affect, the quality of the waters of the state, all or part of the annual fee shall be refunded.

(f)

(1) The state board shall adopt, by emergency regulations, a schedule of fees authorized under subdivision (d). The total revenue collected each year through annual fees shall be set at an amount equal to the revenue levels set forth in the Budget Act for this activity. The state board shall automatically adjust the annual fees each fiscal year to conform with the revenue levels set forth in the Budget Act for this activity. If the state board determines that the revenue col-

lected during the preceding year was greater than, or less than, the revenue levels set forth in the Budget Act, the state board may further adjust the annual fees to compensate for the over and under collection of revenue.

(2) The emergency regulations adopted pursuant to this subdivision, any amendment thereto, or subsequent adjustments to the annual fees, shall be adopted by the state board in accordance with Chapter 3.5 (commencing with *Section 11340*) of Part 1 of Division 3 of Title 2 of the Government Code. The adoption of these regulations is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health, safety, and general welfare. Notwithstanding Chapter 3.5 (commencing with *Section 11340*) of Part 1 of Division 3 of Title 2 of the Government Code, any emergency regulations adopted by the state board, or adjustments to the annual fees made by the state board pursuant to this section, shall not be subject to review by the Office of Administrative Law and shall remain in effect until revised by the state board.

(g) The state board shall adopt regulations setting forth reasonable time limits within which the regional board shall determine the adequacy of a report of waste discharge submitted under this section.

(h) Each report submitted under this section shall be sworn to, or submitted under penalty of perjury.

(i) The regulations adopted by the state board pursuant to subdivision (f) shall include a provision that annual fees shall not be imposed on those who pay fees under the national pollutant discharge elimination system until the time when those fees are again due, at which time the fees shall become due on an annual basis.

(j) A person operating or proposing to construct an oil, gas, or geothermal injection well subject to paragraph (3) of subdivision (a) shall not be required to pay a fee pursuant to subdivision (d) if the injection well is regulated by the Division of Oil and Gas of the Department of Conservation, in lieu of the appropriate California regional water quality control board, pursuant to the memorandum of understanding, entered into between the state board and the Department of Conservation on May 19, 1988. This subdivision shall remain operative until the memorandum of understanding is revoked by the state board or the Department of Conservation.

(k) In addition to the report required by subdivision (a), before a person discharges mining waste, the person shall first submit both of the following to the regional board:

(1) A report on the physical and chemical characteristics of the waste that could affect its potential to cause pollution or contamination. The report shall include the results of all tests required by regulations adopted by the board, any test adopted by the Department of Toxic Substances Control pursuant to *Section 25141* of the Health and Safety Code for extractable, persistent, and bioaccumulative toxic substances in a waste or other material, and any other tests that the state board or regional board may require, including, but not limited to, tests needed to determine the acid-generating potential of the mining waste or the extent to which hazardous substances may persist in the waste after disposal.

(2) A report that evaluates the potential of the discharge of the mining waste to produce, over the long term, acid mine drainage, the discharge or leaching of heavy metals, or the release of other hazardous substances.

(l) Except upon the written request of the regional board, a report of waste discharge need not be filed pursuant to subdivision (a) or (c) by a user of recycled water that is being supplied by a supplier or distributor of recycled water for whom a master recycling permit has been issued pursuant to Section 13523.1.

HISTORY:

Added Stats 1969 ch 482 § 18, operative January 1, 1970. Amended Stats 1980 ch 656 § 1; Stats 1984 ch 268 § 32.8, effective June 30, 1984; Stats 1985 ch 653 § 1, ch 1591 § 4; Stats 1986 ch 31 § 1, effective March 21, 1986, ch 1013 § 5, effective September 23, 1986; Stats 1988 ch 1026 § 1; Stats 1989 ch 627 § 1, ch 642 § 5. Supplemented by the Governor's Reorganization Plan No. 1 of 1991 § 194, effective July 17, 1991. Amended Stats 1992 ch 211 § 2 (AB 3012); Stats 1993 ch 656 § 57 (AB 1220), effective October 1, 1993; Stats 1995 ch 28 § 20 (AB 1247); Stats 1997 ch 775 § 1 (AB 1186); Stats 2002 ch 1124 § 56 (AB 3000), effective September 30, 2002. Amended Stats 2003 1st Ex Sess 2003-2004 ch 1 § 3 (AB 10X); Stats 2011 ch 2 § 28 (AB 95), effective March 24, 2011.

NOTES:

Editor's Notes



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*** This document is current through urgency Chapter 745 & Extra. Sess. Ch. 16 ***
 of the 2011 Session, and the 2011 Governor's Reorganization Plan No. 1.

WATER CODE
 Division 7. Water Quality
 Chapter 4. Regional Water Quality Control
 Article 4. Waste Discharge Requirements

GO TO CALIFORNIA CODES ARCHIVE DIRECTORY

Cal Wat Code § 13263 (2010)

§ 13263. Requirements prescribed by board; Review, revision, and notice; Absence of vested right to discharge waste

(a) The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge, except discharges into a community sewer system, with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed. The requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.

(b) A regional board, in prescribing requirements, need not authorize the utilization of the full waste assimilation capacities of the receiving waters.

(c) The requirements may contain a time schedule, subject to revision in the discretion of the board.

(d) The regional board may prescribe requirements although no discharge report has been filed.

(e) Upon application by any affected person, or on its own motion, the regional board may review and revise requirements. All requirements shall be reviewed periodically.

(f) The regional board shall notify in writing the person making or proposing the discharge or the change therein of the discharge requirements to be met. After receipt of the notice, the person so notified shall provide adequate means to meet the requirements.

(g) No discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.

(h) The regional board may incorporate the requirements prescribed pursuant to this section into a master recycling permit for either a supplier or distributor, or both, of recycled water.

(i) The state board or a regional board may prescribe general waste discharge requirements for a category of discharges if the state board or that regional board finds or determines that all of the following criteria apply to the discharges in that category:

(1) The discharges are produced by the same or similar operations.

(2) The discharges involve the same or similar types of waste.

(3) The discharges require the same or similar treatment standards.

(4) The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

(j) The state board, after any necessary hearing, may prescribe waste discharge requirements in accordance with this section.

HISTORY:

Added Stats 1969 ch 482 § 18, operative January 1, 1970. Amended Stats 1992 ch 211 § 3 (AB 3012); Stats 1995 ch 28 § 21 (AB 1247), ch 421 § 2 (SB 572).

NOTES:

Amendments:

1992 Amendment:

In addition to making technical changes, added subd (h).

1995 Amendment:

(1) Amended subd (a) by (a) substituting "in an existing discharge," for "therein"; (b) deleting "from time to time" after "the conditions existing" in the first sentence; (c) adding "any" after "shall implement"; and (d) substituting "that" for "if any" after "quality control plans" in the second sentence; (2) added "regional" at the beginning of subd (d); (3) substituted "recycling" for "reclamation" and "recycled" for "reclaimed" in subd (h); and (4) added subds (i) and (j). (As amended Stats 1995 ch 421, compared to the section as it read prior to 1995. This section was also amended by an earlier chapter, ch 28. See *Gov C § 9605*.)

Historical Derivation:

(a) Former Wat C § 13002, as added Stats 1949 ch 1549 § 1, amended Stats 1959 ch 1299 § 4, Stats 1967 ch 1447 § 5.3.

(b) Former Wat C § 13054.2, as added Stats 1959 ch 1299 § 17.

(c) Former Wat C § 13054.3, as added Stats 1959 ch 1299 § 18, amended Stats 1967 ch 1447 § 11.

Editor's Notes

For investigation of analytic procedures, see the 1989 Note following Wat § 13260.

Collateral References:

Cal. Forms Pleading & Practice (Matthew Bender(R)) ch 418 "Pollution And Environmental Matters".

WATER CODE

SECTION 13367

13367. (a) For purposes of this chapter, "preproduction plastic" includes plastic resin pellets and powdered coloring for plastics.

(b) (1) The state board and the regional boards shall implement a program to control discharges of preproduction plastic from point and nonpoint sources. The state board shall determine the appropriate regulatory methods to address the discharges from these point and nonpoint sources.

(2) The state board, when developing this program, shall consult with any regional board with plastic manufacturing, handling, and transportation facilities located within the regional board's jurisdiction that has already voluntarily implemented a program to control discharges of preproduction plastic.

(c) The program control measures shall, at a minimum, include waste discharge, monitoring, and reporting requirements that target plastic manufacturing, handling, and transportation facilities.

(d) The program shall, at a minimum, require plastic manufacturing, handling, and transportation facilities to implement best management practices to control discharges of preproduction plastics. A facility that handles preproduction plastic shall comply with either subdivision (e) or the criteria established pursuant to subdivision (f).

(e) At a minimum, the state board shall require the following best management practices in all permits issued under the national pollutant discharge elimination system (NPDES) program that regulate plastic manufacturing, handling, or transportation facilities:

(1) Appropriate containment systems shall be installed at all onsite storm drain discharge locations that are down-gradient of areas where preproduction plastic is present or transferred. A facility shall install a containment system that is defined as a device or series of devices that traps all particles retained by a one millimeter mesh screen and has a design treatment capacity of not less than the peak flowrate resulting from a one-year, one-hour storm in each of the down-gradient drainage areas. When the installation of a containment system is not appropriate because one or more of a facility's down-gradient drainage areas is not discharged through a stormwater conveyance system, or when the regional board determines that a one millimeter or similar mesh screen is not appropriate at one or more down-gradient discharge locations, the regulated facility shall identify and propose for approval by the regional board technically feasible alternative storm drain control measures that are designed to achieve the same performance as a one millimeter mesh screen.

(2) At all points of preproduction plastic transfer, measures shall be taken to prevent discharge, including, but not limited to, sealed containers durable enough so as not to rupture under typical loading and unloading activities.

(3) At all points of preproduction plastic storage, preproduction plastic shall be stored in sealed containers that are durable enough so as not to rupture under typical loading and unloading activities.

(4) At all points of storage and transfer of preproduction

plastic, capture devices shall be in place under all transfer valves and devices used in loading, unloading, or other transfer of preproduction plastic.

(5) A facility shall make available to its employees a vacuum or vacuum type system, for quick cleanup of fugitive preproduction plastic.

(f) The state board shall include criteria for submitting a no exposure certification pursuant to Section 122.26(g) of Title 40 of the Code of Federal Regulations in all NPDES permits regulating plastic manufacturing, handling, or transportation facilities. Facilities that satisfy the no exposure certification criteria are conditionally exempt from the permitting requirements pursuant to Section 122.26 of Title 40 of the Code of Federal Regulations. The no exposure certification shall be required every five years or more frequently as determined by the state board or a regional board.

(g) The state board and the regional boards shall implement this chapter by January 1, 2009.

(h) Nothing in this chapter limits the authority of the state board or the regional boards to establish requirements in addition to the best management practices for the elimination of discharges of preproduction plastic.

1990 (16 U.S.C. Sec. 1455b), and this division in the preparation of this detailed implementation program.

(2)(A) The program shall include all of the following components:

(i) Nonregulatory implementation of best management practices.

(ii) Regulatory-based incentives for best management practices.

(iii) The adoption and enforcement of waste discharge requirements that will require the implementation of best management practices.

(B) In connection with its duties under this subdivision to prepare and implement the state's nonpoint source management plan, the state board shall develop, on or before February 1, 2001, guidance to be used by the state board and the regional boards for the purpose of describing the process by which the state board and the regional boards will enforce the state's nonpoint source management plan, pursuant to this division.

(C) The adoption of the guidance developed pursuant to this section is not subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(b) The state board, in consultation with the California Coastal Commission and other appropriate agencies, as necessary, on or before December 31 of each year, shall submit to the Legislature, and make available to the public, both of the following:

(1) Copies of all state and regional board reports that contain information related to nonpoint source pollution and that the state or regional boards were required to prepare in the previous fiscal year pursuant to Sections 303, 305(b), and 319 of the Clean Water Act (33 U.S.C. Secs. 1313, 1315(b), and 1329), Section 6217 of the federal Coastal Zone Act Reauthorization Amendments of 1990 (16 U.S.C. Sec. 1455b), related regulations, and this division.

(2) A summary of information related to nonpoint source pollution that is set forth in the reports described pursuant to paragraph (1) including, but not limited to, summaries of both of the following:

(A) Information that is related to nonpoint source pollution and that is required to be included in reports prepared pursuant to Section 305(b) of the Clean Water Act (33 U.S.C. 1315(b)).

(B) Information that is required to be in reports prepared pursuant to Section 319(h)(11) of the Clean Water Act (33 U.S.C. Sec. 1329(h)(11)).

CHAPTER 5.5. COMPLIANCE WITH THE PROVISIONS OF THE FEDERAL WATER POLLUTION CONTROL ACT AS AMENDED IN 1972

§ 13370. Legislative intent

The Legislature finds and declares as follows:

(a) The Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.), as amended, provides for permit systems to regulate the discharge of pollutants and dredged or fill material to the navigable waters of the United States and to regulate the use and disposal of sewage sludge.

(b) The Federal Water Pollution Control Act, as amended, provides that permits may be issued by states which are authorized to implement the provisions of that act.

(c) It is in the interest of the people of the state, in order to avoid direct regulation by the federal government of persons already subject to regulation under state law pursuant to this division, to enact this chapter in order to authorize the state to implement the provisions of the Federal Water Pollution Control Act and acts amendatory thereof or supplementary thereto, and federal regulations and guidelines issued pursuant thereto, provided, that the state board shall request federal funding under the Federal Water Pollution Control Act for the purpose of carrying out its responsibilities under this program.

§ 13370.5. Legislative findings

(a) The Legislature finds and declares that, since the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.), as amended, and applicable federal regulations (40 C.F.R. § 403 et seq.) provide for a pretreatment program to regulate the discharge of pollutants into publicly owned treatment works and provide that states with approved national pollutant discharge elimination system (NPDES) permit programs shall apply for approval of a state pretreatment program, it is in the interest of the people of the state to enact this section in order to avoid direct regulation by the federal government of publicly owned treatment works already subject to regulation under state law pursuant to this division.

(b) The state board shall develop a state pretreatment program and shall, not later than September 1, 1985, apply to the Environmental Protection Agency for approval of the pretreatment program in accordance with federal requirements.

§ 13372. Consistency

(a) This chapter shall be construed to ensure consistency with the requirements for state programs implementing the Federal Water Pollution Control Act and acts

§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* (1) Prior to October 1, 1994, discharges composed entirely of storm water shall not be required to obtain a NPDES permit except:

(i) A discharge with respect to which a permit has been issued prior to February 4, 1987;

(ii) A discharge associated with industrial activity (see § 122.26(a)(4));

(iii) A discharge from a large municipal separate storm sewer system;

(iv) A discharge from a medium municipal separate storm sewer system;

(v) A discharge which the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines to contribute to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States. This designation may include a discharge from any conveyance or system of conveyances used for collecting and conveying storm water runoff or a system of discharges from municipal separate storm sewers, except for those discharges from conveyances which do not require a permit under paragraph (a)(2) of this section or agricultural storm water runoff which is exempted from the definition of point source at § 122.2.

The Director may designate discharges from municipal separate storm sewers on a system-wide or jurisdiction-wide basis. In making this determination the Director may consider the following factors:

(A) The location of the discharge with respect to waters of the United States as defined at 40 CFR 122.2.

(B) The size of the discharge;

(C) The quantity and nature of the pollutants discharged to waters of the United States; and

(D) Other relevant factors.

(2) The Director may not require a permit for discharges of storm water runoff from the following:

(i) Mining operations composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation

runoff and which are not contaminated by contact with or that have not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations, except in accordance with paragraph (c)(1)(iv) of this section.

(ii) All field activities or operations associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities, except in accordance with paragraph (c)(1)(iii) of this section. Discharges of sediment from construction activities associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities are not subject to the provisions of paragraph (c)(1)(iii)(C) of this section.

NOTE TO PARAGRAPH (a)(2)(ii): EPA encourages operators of oil and gas field activities or operations to implement and maintain Best Management Practices (BMPs) to minimize discharges of pollutants, including sediment, in storm water both during and after construction activities to help ensure protection of surface water quality during storm events. Appropriate controls would be those suitable to the site conditions and consistent with generally accepted engineering design criteria and manufacturer specifications. Selection of BMPs could also be affected by seasonal or climate conditions.

(3) *Large and medium municipal separate storm sewer systems.* (i) Permits must be obtained for all discharges from large and medium municipal separate storm sewer systems.

(ii) The Director may either issue one system-wide permit covering all discharges from municipal separate storm sewers within a large or medium municipal separate storm sewer system or issue distinct permits for appropriate categories of discharges within a large or medium municipal separate storm sewer system including, but not limited to: all discharges owned or operated by the same municipality; located within the same jurisdiction; all discharges within a system that discharge to the same watershed; discharges

within a system that are similar in nature; or for individual discharges from municipal separate storm sewers within the system.

(iii) The operator of a discharge from a municipal separate storm sewer which is part of a large or medium municipal separate storm sewer system must either:

(A) Participate in a permit application (to be a permittee or a co-permittee) with one or more other operators of discharges from the large or medium municipal storm sewer system which covers all, or a portion of all, discharges from the municipal separate storm sewer system;

(B) Submit a distinct permit application which only covers discharges from the municipal separate storm sewers for which the operator is responsible; or

(C) A regional authority may be responsible for submitting a permit application under the following guidelines:

(1) The regional authority together with co-applicants shall have authority over a storm water management program that is in existence, or shall be in existence at the time part 1 of the application is due;

(2) The permit applicant or co-applicants shall establish their ability to make a timely submission of part 1 and part 2 of the municipal application;

(3) Each of the operators of municipal separate storm sewers within the systems described in paragraphs (b)(4) (i), (ii), and (iii) or (b)(7) (i), (ii), and (iii) of this section, that are under the purview of the designated regional authority, shall comply with the application requirements of paragraph (d) of this section.

(iv) One permit application may be submitted for all or a portion of all municipal separate storm sewers within adjacent or interconnected large or medium municipal separate storm sewer systems. The Director may issue one system-wide permit covering all, or a portion of all municipal separate storm sewers in adjacent or interconnected large or medium municipal separate storm sewer systems.

(v) Permits for all or a portion of all discharges from large or medium municipal separate storm sewer systems

that are issued on a system-wide, jurisdiction-wide, watershed or other basis may specify different conditions relating to different discharges covered by the permit, including different management programs for different drainage areas which contribute storm water to the system.

(vi) Co-permittees need only comply with permit conditions relating to discharges from the municipal separate storm sewers for which they are operators.

(4) *Discharges through large and medium municipal separate storm sewer systems.* In addition to meeting the requirements of paragraph (c) of this section, an operator of a storm water discharge associated with industrial activity which discharges through a large or medium municipal separate storm sewer system shall submit, to the operator of the municipal separate storm sewer system receiving the discharge no later than May 15, 1991, or 180 days prior to commencing such discharge: the name of the facility; a contact person and phone number; the location of the discharge; a description, including Standard Industrial Classification, which best reflects the principal products or services provided by each facility; and any existing NPDES permit number.

(5) *Other municipal separate storm sewers.* The Director may issue permits for municipal separate storm sewers that are designated under paragraph (a)(1)(v) of this section on a system-wide basis, jurisdiction-wide basis, watershed basis or other appropriate basis, or may issue permits for individual discharges.

(6) *Non-municipal separate storm sewers.* For storm water discharges associated with industrial activity from point sources which discharge through a non-municipal or non-publicly owned separate storm sewer system, the Director, in his discretion, may issue: a single NPDES permit, with each discharger a co-permittee to a permit issued to the operator of the portion of the system that discharges into waters of the United States; or, individual permits to each discharger of storm water associated with industrial activity through the non-municipal conveyance system.

(i) All storm water discharges associated with industrial activity that discharge through a storm water discharge system that is not a municipal separate storm sewer must be covered by an individual permit, or a permit issued to the operator of the portion of the system that discharges to waters of the United States, with each discharger to the non-municipal conveyance a co-permittee to that permit.

(ii) Where there is more than one operator of a single system of such conveyances, all operators of storm water discharges associated with industrial activity must submit applications.

(iii) Any permit covering more than one operator shall identify the effluent limitations, or other permit conditions, if any, that apply to each operator.

(7) *Combined sewer systems.* Conveyances that discharge storm water runoff combined with municipal sewage are point sources that must obtain NPDES permits in accordance with the procedures of §122.21 and are not subject to the provisions of this section.

(8) Whether a discharge from a municipal separate storm sewer is or is not subject to regulation under this section shall have no bearing on whether the owner or operator of the discharge is eligible for funding under title II, title III or title VI of the Clean Water Act. See 40 CFR part 35, subpart I, appendix A(b)H.2.j.

(9)(i) On and after October 1, 1994, for discharges composed entirely of storm water, that are not required by paragraph (a)(1) of this section to obtain a permit, operators shall be required to obtain a NPDES permit only if:

(A) The discharge is from a small MS4 required to be regulated pursuant to §122.32;

(B) The discharge is a storm water discharge associated with small construction activity pursuant to paragraph (b)(15) of this section;

(C) The Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, determines that storm water controls are needed for the discharge based on wasteload allocations that are part of "total maximum daily loads" (TMDLs) that address the pollutant(s) of concern; or

(D) The Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, determines that the discharge, or category of discharges within a geographic area, contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(ii) Operators of small MS4s designated pursuant to paragraphs (a)(9)(i)(A), (a)(9)(i)(C), and (a)(9)(i)(D) of this section shall seek coverage under an NPDES permit in accordance with §§122.33 through 122.35. Operators of non-municipal sources designated pursuant to paragraphs (a)(9)(i)(B), (a)(9)(i)(C), and (a)(9)(i)(D) of this section shall seek coverage under an NPDES permit in accordance with paragraph (c)(1) of this section.

(iii) Operators of storm water discharges designated pursuant to paragraphs (a)(9)(i)(C) and (a)(9)(i)(D) of this section shall apply to the Director for a permit within 180 days of receipt of notice, unless permission for a later date is granted by the Director (see §124.52(c) of this chapter).

(b) *Definitions.* (1) *Co-permittee* means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator.

(2) *Illicit discharge* means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

(3) *Incorporated place* means the District of Columbia, or a city, town, township, or village that is incorporated under the laws of the State in which it is located.

(4) *Large municipal separate storm sewer system* means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix F of this part); or

(ii) Located in the counties listed in appendix H, except municipal separate

storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraph (b)(4) (i) or (ii) of this section and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(4) (i) or (ii) of this section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(4)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; and

(E) Other relevant factors; or

(iv) The Director may, upon petition, designate as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraph (b)(4) (i), (ii), (iii) of this section.

(5) *Major municipal separate storm sewer outfall* (or "major outfall") means a municipal separate storm sewer outfall that discharges from a single pipe with an inside diameter of 36 inches or more or its equivalent (discharge from a single conveyance other than circular pipe which is associated with a drainage area of more than 50 acres); or for municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a single pipe with an inside diameter of 12 inches or more or from its equivalent

(discharge from other than a circular pipe associated with a drainage area of 2 acres or more).

(6) *Major outfall* means a major municipal separate storm sewer outfall.

(7) *Medium municipal separate storm sewer system* means all municipal separate storm sewers that are either:

(i) Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census (Appendix G of this part); or

(ii) Located in the counties listed in appendix I, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or

(iii) Owned or operated by a municipality other than those described in paragraph (b)(7) (i) or (ii) of this section and that are designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph (b)(7) (i) or (ii) of this section. In making this determination the Director may consider the following factors:

(A) Physical interconnections between the municipal separate storm sewers;

(B) The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph (b)(7)(i) of this section;

(C) The quantity and nature of pollutants discharged to waters of the United States;

(D) The nature of the receiving waters; or

(E) Other relevant factors; or

(iv) The Director may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a storm water management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs (b)(7) (i), (ii), (iii) of this section.

(8) *Municipal separate storm sewer* means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;

(ii) Designed or used for collecting or conveying storm water;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

(9) *Outfall* means a *point source* as defined by 40 CFR 122.2 at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

(10) *Overburden* means any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.

(11) *Runoff coefficient* means the fraction of total rainfall that will appear at a conveyance as runoff.

(12) *Significant materials* includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of title III

of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

(13) *Storm water* means storm water runoff, snow melt runoff, and surface runoff and drainage.

(14) *Storm water discharge associated with industrial activity* means the discharge from any conveyance that is used for collecting and conveying storm water and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under this part 122. For the categories of industries identified in this section, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in paragraphs (b)(14)(i) through (xi) of this

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part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more;

(xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25;

(15) Storm water discharge associated with small construction activity means the discharge of storm water from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. The Director may waive the otherwise applicable requirements in a general permit for a storm water discharge from construction activities that disturb less than five acres where:

(A) The value of the rainfall erosivity factor ("R" in the Revised Universal Soil Loss Equation) is less than five during the period of construction activity. The rainfall erosivity factor is determined in accordance with Chapter 2 of *Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)*, pages 21-64, dated January 1997. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C 552(a) and 1 CFR part 51. Copies may be obtained from EPA's Water Resource Center, Mail Code RC4100, 401 M St. SW, Washington, DC 20460. A copy is also available for inspection at the U.S.

EPA Water Docket, 401 M Street SW, Washington, DC 20460, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. An operator must certify to the Director that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five; or

(B) Storm water controls are not needed based on a "total maximum daily load" (TMDL) approved or established by EPA that addresses the pollutant(s) of concern or, for non-impaired waters that do not require TMDLs, an equivalent analysis that determines allocations for small construction sites for the pollutant(s) of concern or that determines that such allocations are not needed to protect water quality based on consideration of existing in-stream concentrations, expected growth in pollutant contributions from all sources, and a margin of safety. For the purpose of this paragraph, the pollutant(s) of concern include sediment or a parameter that addresses sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. The operator must certify to the Director that the construction activity will take place, and storm water discharges will occur, within the drainage area addressed by the TMDL or equivalent analysis.

(ii) Any other construction activity designated by the Director, or in States with approved NPDES programs either the Director or the EPA Regional Administrator, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the United States.

EXHIBIT 1 TO § 122.26(B)(15)—SUMMARY OF COVERAGE OF "STORM WATER DISCHARGES ASSOCIATED WITH SMALL CONSTRUCTION ACTIVITY" UNDER THE NPDES STORM WATER PROGRAM

Automatic Designation: Required Nationwide Coverage.	• Construction activities that result in a land disturbance of equal to or greater than one acre and less than five acres.
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EXHIBIT 1 TO § 122.26(b)(15)—SUMMARY OF COVERAGE OF “STORM WATER DISCHARGES ASSOCIATED WITH SMALL CONSTRUCTION ACTIVITY” UNDER THE NPDES STORM WATER PROGRAM—Continued

<p>Potential Designation: Optional Evaluation and Designation by the NPDES Permitting Authority or EPA Regional Administrator.</p> <p>Potential Waiver: Waiver from Requirements as Determined by the NPDES Permitting Authority..</p>	<ul style="list-style-type: none"> • Construction activities disturbing less than one acre if part of a larger common plan of development or sale with a planned disturbance of equal to or greater than one acre and less than five acres. (see § 122.26(b)(15)(i).) • Construction activities that result in a land disturbance of less than one acre based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants. (see § 122.26(b)(15)(ii).) <p>Any automatically designated construction activity where the operator certifies: (1) A rainfall erosivity factor of less than five, or (2) That the activity will occur within an area where controls are not needed based on a TMDL or, for non-impaired waters that do not require a TMDL, an equivalent analysis for the pollutant(s) of concern. (see § 122.26(b)(15)(i).)</p>
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(16) *Small municipal separate storm sewer system* means all separate storm sewers that are:

(i) Owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.

(ii) Not defined as “large” or “medium” municipal separate storm sewer systems pursuant to paragraphs (b)(4) and (b)(7) of this section, or designated under paragraph (a)(1)(v) of this section.

(iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

(17) *Small MS4* means a small municipal separate storm sewer system.

(18) *Municipal separate storm sewer system* means all separate storm sewers that are defined as “large” or “medium” or “small” municipal separate

storm sewer systems pursuant to paragraphs (b)(4), (b)(7), and (b)(16) of this section, or designated under paragraph (a)(1)(v) of this section.

(19) *MS4* means a municipal separate storm sewer system.

(20) *Uncontrolled sanitary landfill* means a landfill or open dump, whether in operation or closed, that does not meet the requirements for runoff or runoff controls established pursuant to subtitle D of the Solid Waste Disposal Act.

(c) *Application requirements for storm water discharges associated with industrial activity and storm water discharges associated with small construction activity*—(1) *Individual application*. Dischargers of storm water associated with industrial activity and with small construction activity are required to apply for an individual permit or seek coverage under a promulgated storm water general permit. Facilities that are required to obtain an individual permit or any discharge of storm water which the Director is evaluating for designation (see §124.52(c) of this chapter) under paragraph (a)(1)(v) of this section and is not a municipal storm sewer, shall submit an NPDES application in accordance with the requirements of §122.21 as modified and supplemented by the provisions of this paragraph.

(i) Except as provided in §122.26(c)(1)(ii)–(iv), the operator of a storm water discharge associated with industrial activity subject to this section shall provide:

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(A) A site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) of the facility including: each of its drainage and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each past or present area used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied, each of its hazardous waste treatment, storage or disposal facilities (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility;

(B) An estimate of the area of impervious surfaces (including paved areas and building roofs) and the total area drained by each outfall (within a mile radius of the facility) and a narrative description of the following: Significant materials that in the three years prior to the submittal of this application have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage or disposal of such materials; materials management practices employed, in the three years prior to the submittal of this application, to minimize contact by these materials with storm water runoff; materials loading and access areas; the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied; the location and a description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the ultimate disposal of any solid or fluid wastes other than by discharge;

(C) A certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested or evaluated for

the presence of non-storm water discharges which are not covered by a NPDES permit; tests for such non-storm water discharges may include smoke tests, fluorometric dye tests, analysis of accurate schematics, as well as other appropriate tests. The certification shall include a description of the method used, the date of any testing, and the on-site drainage points that were directly observed during a test;

(D) Existing information regarding significant leaks or spills of toxic or hazardous pollutants at the facility that have taken place within the three years prior to the submittal of this application;

(E) Quantitative data based on samples collected during storm events and collected in accordance with §122.21 of this part from all outfalls containing a storm water discharge associated with industrial activity for the following parameters:

(1) Any pollutant limited in an effluent guideline to which the facility is subject;

(2) Any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit);

(3) Oil and grease, pH, BOD₅, COD, TSS, total phosphorus, total Kjeldahl nitrogen, and nitrate plus nitrite nitrogen;

(4) Any information on the discharge required under §122.21(g)(7)(vi) and (vii);

(5) Flow measurements or estimates of the flow rate, and the total amount of discharge for the storm event(s) sampled, and the method of flow measurement or estimation; and

(6) The date and duration (in hours) of the storm event(s) sampled, rainfall measurements or estimates of the storm event (in inches) which generated the sampled runoff and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event (in hours);

(F) Operators of a discharge which is composed entirely of storm water are exempt from the requirements of §122.21 (g)(2), (g)(3), (g)(4), (g)(5), (g)(7)(iii), (g)(7)(iv), (g)(7)(v), and (g)(7)(viii); and

(G) Operators of new sources or new discharges (as defined in §122.2 of this part) which are composed in part or entirely of storm water must include estimates for the pollutants or parameters listed in paragraph (c)(1)(i)(E) of this section instead of actual sampling data, along with the source of each estimate. Operators of new sources or new discharges composed in part or entirely of storm water must provide quantitative data for the parameters listed in paragraph (c)(1)(i)(E) of this section within two years after commencement of discharge, unless such data has already been reported under the monitoring requirements of the NPDES permit for the discharge. Operators of a new source or new discharge which is composed entirely of storm water are exempt from the requirements of §122.21 (k)(3)(ii), (k)(3)(iii), and (k)(5).

(ii) An operator of an existing or new storm water discharge that is associated with industrial activity solely under paragraph (b)(14)(x) of this section or is associated with small construction activity solely under paragraph (b)(15) of this section, is exempt from the requirements of §122.21(g) and paragraph (c)(1)(i) of this section. Such operator shall provide a narrative description of:

(A) The location (including a map) and the nature of the construction activity;

(B) The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;

(C) Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a brief description of applicable State and local erosion and sediment control requirements;

(D) Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a brief description of applicable State or local erosion and sediment control requirements;

(E) An estimate of the runoff coefficient of the site and the increase in impervious area after the construction addressed in the permit application is

completed, the nature of fill material and existing data describing the soil or the quality of the discharge; and

(F) The name of the receiving water.

(iii) The operator of an existing or new discharge composed entirely of storm water from an oil or gas exploration, production, processing, or treatment operation, or transmission facility is not required to submit a permit application in accordance with paragraph (c)(1)(i) of this section, unless the facility:

(A) Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 117.21 or 40 CFR 302.6 at anytime since November 16, 1987; or

(B) Has had a discharge of storm water resulting in the discharge of a reportable quantity for which notification is or was required pursuant to 40 CFR 110.6 at any time since November 16, 1987; or

(C) Contributes to a violation of a water quality standard.

(iv) The operator of an existing or new discharge composed entirely of storm water from a mining operation is not required to submit a permit application unless the discharge has come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations.

(v) Applicants shall provide such other information the Director may reasonably require under §122.21(g)(13) of this part to determine whether to issue a permit and may require any facility subject to paragraph (c)(1)(ii) of this section to comply with paragraph (c)(1)(i) of this section.

(2) [Reserved]

(d) *Application requirements for large and medium municipal separate storm sewer discharges.* The operator of a discharge from a large or medium municipal separate storm sewer or a municipal separate storm sewer that is designated by the Director under paragraph (a)(1)(v) of this section, may submit a jurisdiction-wide or system-wide permit application. Where more than one public entity owns or operates a municipal separate storm sewer within a geographic area (including adjacent

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or interconnected municipal separate storm sewer systems), such operators may be a coapplicant to the same application. Permit applications for discharges from large and medium municipal storm sewers or municipal storm sewers designated under paragraph (a)(1)(v) of this section shall include;

(1) *Part 1.* Part 1 of the application shall consist of;

(i) *General information.* The applicants' name, address, telephone number of contact person, ownership status and status as a State or local government entity.

(ii) *Legal authority.* A description of existing legal authority to control discharges to the municipal separate storm sewer system. When existing legal authority is not sufficient to meet the criteria provided in paragraph (d)(2)(i) of this section, the description shall list additional authorities as will be necessary to meet the criteria and shall include a schedule and commitment to seek such additional authority that will be needed to meet the criteria.

(iii) *Source identification.* (A) A description of the historic use of ordinances, guidance or other controls which limited the discharge of non-storm water discharges to any Publicly Owned Treatment Works serving the same area as the municipal separate storm sewer system.

(B) A USGS 7.5 minute topographic map (or equivalent topographic map with a scale between 1:10,000 and 1:24,000 if cost effective) extending one mile beyond the service boundaries of the municipal storm sewer system covered by the permit application. The following information shall be provided:

(1) The location of known municipal storm sewer system outfalls discharging to waters of the United States;

(2) A description of the land use activities (e.g. divisions indicating undeveloped, residential, commercial, agricultural and industrial uses) accompanied with estimates of population densities and projected growth for a ten year period within the drainage area served by the separate storm sewer. For each land use type, an estimate of an average runoff coefficient shall be provided;

(3) The location and a description of the activities of the facility of each currently operating or closed municipal landfill or other treatment, storage or disposal facility for municipal waste;

(4) The location and the permit number of any known discharge to the municipal storm sewer that has been issued a NPDES permit;

(5) The location of major structural controls for storm water discharge (retention basins, detention basins, major infiltration devices, etc.); and

(6) The identification of publicly owned parks, recreational areas, and other open lands.

(iv) *Discharge characterization.* (A) Monthly mean rain and snow fall estimates (or summary of weather bureau data) and the monthly average number of storm events.

(B) Existing quantitative data describing the volume and quality of discharges from the municipal storm sewer, including a description of the outfalls sampled, sampling procedures and analytical methods used.

(C) A list of water bodies that receive discharges from the municipal separate storm sewer system, including downstream segments, lakes and estuaries, where pollutants from the system discharges may accumulate and cause water degradation and a brief description of known water quality impacts. At a minimum, the description of impacts shall include a description of whether the water bodies receiving such discharges have been:

(1) Assessed and reported in section 305(b) reports submitted by the State, the basis for the assessment (evaluated or monitored), a summary of designated use support and attainment of Clean Water Act (CWA) goals (fishable and swimmable waters), and causes of nonsupport of designated uses;

(2) Listed under section 304(1)(1)(A)(i), section 304(1)(1)(A)(ii), or section 304(1)(1)(B) of the CWA that is not expected to meet water quality standards or water quality goals;

(3) Listed in State Nonpoint Source Assessments required by section 319(a) of the CWA that, without additional action to control nonpoint sources of pollution, cannot reasonably be expected to attain or maintain water

quality standards due to storm sewers, construction, highway maintenance and runoff from municipal landfills and municipal sludge adding significant pollution (or contributing to a violation of water quality standards);

(4) Identified and classified according to eutrophic condition of publicly owned lakes listed in State reports required under section 314(a) of the CWA (include the following: A description of those publicly owned lakes for which uses are known to be impaired; a description of procedures, processes and methods to control the discharge of pollutants from municipal separate storm sewers into such lakes; and a description of methods and procedures to restore the quality of such lakes);

(5) Areas of concern of the Great Lakes identified by the International Joint Commission;

(6) Designated estuaries under the National Estuary Program under section 320 of the CWA;

(7) Recognized by the applicant as highly valued or sensitive waters;

(8) Defined by the State or U.S. Fish and Wildlife Services's National Wetlands Inventory as wetlands; and

(9) Found to have pollutants in bottom sediments, fish tissue or biosurvey data.

(D) *Field screening.* Results of a field screening analysis for illicit connections and illegal dumping for either selected field screening points or major outfalls covered in the permit application. At a minimum, a screening analysis shall include a narrative description, for either each field screening point or major outfall, of visual observations made during dry weather periods. If any flow is observed, two grab samples shall be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a narrative description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observations regarding the potential presence of non-storm water discharges or illegal dumping shall be provided. In addition, a narrative description of the results of a field analysis using suitable methods to estimate pH, total chlorine, total copper, total phenol, and detergents (or surfactants) shall be provided along

with a description of the flow rate. Where the field analysis does not involve analytical methods approved under 40 CFR part 136, the applicant shall provide a description of the method used including the name of the manufacturer of the test method along with the range and accuracy of the test. Field screening points shall be either major outfalls or other outfall points (or any other point of access such as manholes) randomly located throughout the storm sewer system by placing a grid over a drainage system map and identifying those cells of the grid which contain a segment of the storm sewer system or major outfall. The field screening points shall be established using the following guidelines and criteria:

(1) A grid system consisting of perpendicular north-south and east-west lines spaced $\frac{1}{4}$ mile apart shall be overlaid on a map of the municipal storm sewer system, creating a series of cells;

(2) All cells that contain a segment of the storm sewer system shall be identified; one field screening point shall be selected in each cell; major outfalls may be used as field screening points;

(3) Field screening points should be located downstream of any sources of suspected illegal or illicit activity;

(4) Field screening points shall be located to the degree practicable at the farthest manhole or other accessible location downstream in the system, within each cell; however, safety of personnel and accessibility of the location should be considered in making this determination;

(5) Hydrological conditions; total drainage area of the site; population density of the site; traffic density; age of the structures or buildings in the area; history of the area; and land use types;

(6) For medium municipal separate storm sewer systems, no more than 250 cells need to have identified field screening points; in large municipal separate storm sewer systems, no more than 500 cells need to have identified field screening points; cells established by the grid that contain no storm sewer segments will be eliminated from consideration; if fewer than 250 cells in medium municipal sewers are created,

and fewer than 500 in large systems are created by the overlay on the municipal sewer map, then all those cells which contain a segment of the sewer system shall be subject to field screening (unless access to the separate storm sewer system is impossible); and

(7) Large or medium municipal separate storm sewer systems which are unable to utilize the procedures described in paragraphs (d)(1)(iv)(D) (1) through (6) of this section, because a sufficiently detailed map of the separate storm sewer systems is unavailable, shall field screen no more than 500 or 250 major outfalls respectively (or all major outfalls in the system, if less); in such circumstances, the applicant shall establish a grid system consisting of north-south and east-west lines spaced $\frac{1}{4}$ mile apart as an overlay to the boundaries of the municipal storm sewer system, thereby creating a series of cells; the applicant will then select major outfalls in as many cells as possible until at least 500 major outfalls (large municipalities) or 250 major outfalls (medium municipalities) are selected; a field screening analysis shall be undertaken at these major outfalls.

(E) *Characterization plan.* Information and a proposed program to meet the requirements of paragraph (d)(2)(iii) of this section. Such description shall include: the location of outfalls or field screening points appropriate for representative data collection under paragraph (d)(2)(iii)(A) of this section, a description of why the outfall or field screening point is representative, the seasons during which sampling is intended, a description of the sampling equipment. The proposed location of outfalls or field screening points for such sampling should reflect water quality concerns (see paragraph (d)(1)(iv)(C) of this section) to the extent practicable.

(v) *Management programs.* (A) A description of the existing management programs to control pollutants from the municipal separate storm sewer system. The description shall provide information on existing structural and source controls, including operation and maintenance measures for structural controls, that are currently being implemented. Such controls may in-

clude, but are not limited to: Procedures to control pollution resulting from construction activities; floodplain management controls; wetland protection measures; best management practices for new subdivisions; and emergency spill response programs. The description may address controls established under State law as well as local requirements.

(B) A description of the existing program to identify illicit connections to the municipal storm sewer system. The description should include inspection procedures and methods for detecting and preventing illicit discharges, and describe areas where this program has been implemented.

(vi) *Fiscal resources.* (A) A description of the financial resources currently available to the municipality to complete part 2 of the permit application. A description of the municipality's budget for existing storm water programs, including an overview of the municipality's financial resources and budget, including overall indebtedness and assets, and sources of funds for storm water programs.

(2) *Part 2.* Part 2 of the application shall consist of:

(i) *Adequate legal authority.* A demonstration that the applicant can operate pursuant to legal authority established by statute, ordinance or series of contracts which authorizes or enables the applicant at a minimum to:

(A) Control through ordinance, permit, contract, order or similar means, the contribution of pollutants to the municipal storm sewer by storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;

(B) Prohibit through ordinance, order or similar means, illicit discharges to the municipal separate storm sewer;

(C) Control through ordinance, order or similar means the discharge to a municipal separate storm sewer of spills, dumping or disposal of materials other than storm water;

(D) Control through interagency agreements among coapplicants the contribution of pollutants from one portion of the municipal system to another portion of the municipal system;

(E) Require compliance with conditions in ordinances, permits, contracts or orders; and

(F) Carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

(ii) *Source identification.* The location of any major outfall that discharges to waters of the United States that was not reported under paragraph (d)(1)(iii)(B)(1) of this section. Provide an inventory, organized by watershed of the name and address, and a description (such as SIC codes) which best reflects the principal products or services provided by each facility which may discharge, to the municipal separate storm sewer, storm water associated with industrial activity;

(iii) *Characterization data.* When "quantitative data" for a pollutant are required under paragraph (d)(2)(iii)(A)(3) of this section, the applicant must collect a sample of effluent in accordance with 40 CFR 122.21(g)(7) and analyze it for the pollutant in accordance with analytical methods approved under part 136 of this chapter. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. The applicant must provide information characterizing the quality and quantity of discharges covered in the permit application, including:

(A) Quantitative data from representative outfalls designated by the Director (based on information received in part 1 of the application, the Director shall designate between five and ten outfalls or field screening points as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system or, where there are less than five outfalls covered in the application, the Director shall designate all outfalls) developed as follows:

(1) For each outfall or field screening point designated under this subparagraph, samples shall be collected of storm water discharges from three storm events occurring at least one month apart in accordance with the re-

quirements at §122.21(g)(7) (the Director may allow exemptions to sampling three storm events when climatic conditions create good cause for such exemptions);

(2) A narrative description shall be provided of the date and duration of the storm event(s) sampled, rainfall estimates of the storm event which generated the sampled discharge and the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event;

(3) For samples collected and described under paragraphs (d)(2)(iii)(A)(1) and (A)(2) of this section, quantitative data shall be provided for: the organic pollutants listed in Table II; the pollutants listed in Table III (toxic metals, cyanide, and total phenols) of appendix D of 40 CFR part 122, and for the following pollutants:

Total suspended solids (TSS)
 Total dissolved solids (TDS)
 COD
 BOD₅
 Oil and grease
 Fecal coliform
 Fecal streptococcus
 pH
 Total Kjeldahl nitrogen
 Nitrate plus nitrite
 Dissolved phosphorus
 Total ammonia plus organic nitrogen
 Total phosphorus

(4) Additional limited quantitative data required by the Director for determining permit conditions (the Director may require that quantitative data shall be provided for additional parameters, and may establish sampling conditions such as the location, season of sample collection, form of precipitation (snow melt, rainfall) and other parameters necessary to insure representativeness);

(B) Estimates of the annual pollutant load of the cumulative discharges to waters of the United States from all identified municipal outfalls and the event mean concentration of the cumulative discharges to waters of the United States from all identified municipal outfalls during a storm event (as described under §122.21(c)(7)) for BOD₅, COD, TSS, dissolved solids, total nitrogen, total ammonia plus organic nitrogen, total phosphorus, dissolved phosphorus, cadmium, copper, lead,

and zinc. Estimates shall be accompanied by a description of the procedures for estimating constituent loads and concentrations, including any modelling, data analysis, and calculation methods;

(C) A proposed schedule to provide estimates for each major outfall identified in either paragraph (d)(2)(ii) or (d)(1)(iii)(B)(I) of this section of the seasonal pollutant load and of the event mean concentration of a representative storm for any constituent detected in any sample required under paragraph (d)(2)(iii)(A) of this section; and

(D) A proposed monitoring program for representative data collection for the term of the permit that describes the location of outfalls or field screening points to be sampled (or the location of instream stations), why the location is representative, the frequency of sampling, parameters to be sampled, and a description of sampling equipment.

(iv) *Proposed management program.* A proposed management program covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program. Separate proposed programs may be submitted by each coapplicant. Proposed programs may impose controls on a systemwide basis, a watershed basis, a jurisdiction basis, or on individual outfalls. Proposed programs will be considered by the Director when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable. Proposed management programs shall describe priorities for implementing controls. Such programs shall be based on:

(A) A description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm

sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls. At a minimum, the description shall include:

(1) A description of maintenance activities and a maintenance schedule for structural controls to reduce pollutants (including floatables) in discharges from municipal separate storm sewers;

(2) A description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment. Such plan shall address controls to reduce pollutants in discharges from municipal separate storm sewers after construction is completed. (Controls to reduce pollutants in discharges from municipal separate storm sewers containing construction site runoff are addressed in paragraph (d)(2)(iv)(D) of this section;

(3) A description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities;

(4) A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies and that existing structural flood control devices have been evaluated to determine if retrofitting the device to provide additional pollutant removal from storm water is feasible;

(5) A description of a program to monitor pollutants in runoff from operating or closed municipal landfills or other treatment, storage or disposal facilities for municipal waste, which shall identify priorities and procedures for inspections and establishing and implementing control measures for such discharges (this program can be coordinated with the program developed under paragraph (d)(2)(iv)(C) of this section); and

(6) A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewers associated with the application of pesticides, herbicides and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

(B) A description of a program, including a schedule, to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. The proposed program shall include:

(1) A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description shall address all types of illicit discharges, however the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (program descriptions shall address discharges or flows from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States);

(2) A description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens;

(3) A description of procedures to be followed to investigate portions of the separate storm sewer system that, based on the results of the field screen, or other appropriate information, indicate a reasonable potential of containing illicit discharges or other sources of non-storm water (such procedures may include: sampling procedures for constituents such as fecal coliform, fecal streptococcus, surfactants (MBAS), residual chlorine, fluorides and potassium; testing with fluorometric dyes; or conducting in storm sewer inspections where safety and other considerations allow. Such description shall include the location of storm sewers that have been identified for such evaluation);

(4) A description of procedures to prevent, contain, and respond to spills that may discharge into the municipal separate storm sewer;

(5) A description of a program to promote, publicize, and facilitate public reporting of the presence of illicit discharges or water quality impacts associated with discharges from municipal separate storm sewers;

(6) A description of educational activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials; and

(7) A description of controls to limit infiltration of seepage from municipal sanitary sewers to municipal separate storm sewer systems where necessary;

(C) A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system. The program shall:

(1) Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges;

(2) Describe a monitoring program for storm water discharges associated

with the industrial facilities identified in paragraph (d)(2)(iv)(C) of this section, to be implemented during the term of the permit, including the submission of quantitative data on the following constituents: any pollutants limited in effluent guidelines subcategories, where applicable; any pollutant listed in an existing NPDES permit for a facility; oil and grease, COD, pH, BOD₅, TSS, total phosphorus, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen, and any information on discharges required under § 122.21(g)(7) (vi) and (vii).

(D) A description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system, which shall include:

(1) A description of procedures for site planning which incorporate consideration of potential water quality impacts;

(2) A description of requirements for nonstructural and structural best management practices;

(3) A description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality; and

(4) A description of appropriate educational and training measures for construction site operators.

(v) *Assessment of controls.* Estimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program. The assessment shall also identify known impacts of storm water controls on ground water.

(vi) *Fiscal analysis.* For each fiscal year to be covered by the permit, a fiscal analysis of the necessary capital and operation and maintenance expenditures necessary to accomplish the activities of the programs under paragraphs (d)(2) (iii) and (iv) of this section. Such analysis shall include a description of the source of funds that are proposed to meet the necessary ex-

penditures, including legal restrictions on the use of such funds.

(vii) Where more than one legal entity submits an application, the application shall contain a description of the roles and responsibilities of each legal entity and procedures to ensure effective coordination.

(viii) Where requirements under paragraph (d)(1)(iv)(E), (d)(2)(ii), (d)(2)(iii)(B) and (d)(2)(iv) of this section are not practicable or are not applicable, the Director may exclude any operator of a discharge from a municipal separate storm sewer which is designated under paragraph (a)(1)(v), (b)(4)(ii) or (b)(7)(ii) of this section from such requirements. The Director shall not exclude the operator of a discharge from a municipal separate storm sewer identified in appendix F, G, H or I of part 122, from any of the permit application requirements under this paragraph except where authorized under this section.

(e) *Application deadlines.* Any operator of a point source required to obtain a permit under this section that does not have an effective NPDES permit authorizing discharges from its storm water outfalls shall submit an application in accordance with the following deadlines:

(1) *Storm water discharges associated with industrial activity.* (i) Except as provided in paragraph (e)(1)(ii) of this section, for any storm water discharge associated with industrial activity identified in paragraphs (b)(14)(i) through (xi) of this section, that is not part of a group application as described in paragraph (c)(2) of this section or that is not authorized by a storm water general permit, a permit application made pursuant to paragraph (c) of this section must be submitted to the Director by October 1, 1992;

(ii) For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 that is not authorized by a general or individual permit, other than an airport, powerplant, or uncontrolled sanitary landfill, the permit application must be submitted to the Director by March 10, 2003.

(2) For any group application submitted in accordance with paragraph (c)(2) of this section:

(i) *Part 1.* (A) Except as provided in paragraph (e)(2)(i)(B) of this section, part 1 of the application shall be submitted to the Director, Office of Wastewater Enforcement and Compliance by September 30, 1991;

(B) Any municipality with a population of less than 250,000 shall not be required to submit a part 1 application before May 18, 1992.

(C) For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 other than an airport, powerplant, or uncontrolled sanitary landfill, permit applications requirements are reserved.

(ii) Based on information in the part 1 application, the Director will approve or deny the members in the group application within 60 days after receiving part 1 of the group application.

(iii) *Part 2.* (A) Except as provided in paragraph (e)(2)(iii)(B) of this section, part 2 of the application shall be submitted to the Director, Office of Wastewater Enforcement and Compliance by October 1, 1992;

(B) Any municipality with a population of less than 250,000 shall not be required to submit a part 1 application before May 17, 1993.

(C) For any storm water discharge associated with industrial activity from a facility that is owned or operated by a municipality with a population of less than 100,000 other than an airport, powerplant, or uncontrolled sanitary landfill, permit applications requirements are reserved.

(iv) *Rejected facilities.* (A) Except as provided in paragraph (e)(2)(iv)(B) of this section, facilities that are rejected as members of the group shall submit an individual application (or obtain coverage under an applicable general permit) no later than 12 months after the date of receipt of the notice of rejection or October 1, 1992, whichever comes first.

(B) Facilities that are owned or operated by a municipality and that are rejected as members of part 1 group application shall submit an individual application no later than 180 days after

the date of receipt of the notice of rejection or October 1, 1992, whichever is later.

(v) A facility listed under paragraph (b)(14) (i)-(xi) of this section may add on to a group application submitted in accordance with paragraph (e)(2)(i) of this section at the discretion of the Office of Water Enforcement and Permits, and only upon a showing of good cause by the facility and the group applicant; the request for the addition of the facility shall be made no later than February 18, 1992; the addition of the facility shall not cause the percentage of the facilities that are required to submit quantitative data to be less than 10%, unless there are over 100 facilities in the group that are submitting quantitative data; approval to become part of group application must be obtained from the group or the trade association representing the individual facilities.

(3) For any discharge from a large municipal separate storm sewer system;

(i) Part 1 of the application shall be submitted to the Director by November 18, 1991;

(ii) Based on information received in the part 1 application the Director will approve or deny a sampling plan under paragraph (d)(1)(iv)(E) of this section within 90 days after receiving the part 1 application;

(iii) Part 2 of the application shall be submitted to the Director by November 16, 1992.

(4) For any discharge from a medium municipal separate storm sewer system;

(i) Part 1 of the application shall be submitted to the Director by May 18, 1992.

(ii) Based on information received in the part 1 application the Director will approve or deny a sampling plan under paragraph (d)(1)(iv)(E) of this section within 90 days after receiving the part 1 application.

(iii) Part 2 of the application shall be submitted to the Director by May 17, 1993.

(5) A permit application shall be submitted to the Director within 180 days of notice, unless permission for a later date is granted by the Director (see § 124.52(c) of this chapter), for:

(i) A storm water discharge that the Director, or in States with approved NPDES programs, either the Director or the EPA Regional Administrator, determines that the discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States (see paragraphs (a)(1)(v) and (b)(15)(ii) of this section);

(ii) A storm water discharge subject to paragraph (c)(1)(v) of this section.

(6) Facilities with existing NPDES permits for storm water discharges associated with industrial activity shall maintain existing permits. Facilities with permits for storm water discharges associated with industrial activity which expire on or after May 18, 1992 shall submit a new application in accordance with the requirements of 40 CFR 122.21 and 40 CFR 122.26(c) (Form 1, Form 2F, and other applicable Forms) 180 days before the expiration of such permits.

(7) The Director shall issue or deny permits for discharges composed entirely of storm water under this section in accordance with the following schedule:

(i)(A) Except as provided in paragraph (e)(7)(i)(B) of this section, the Director shall issue or deny permits for storm water discharges associated with industrial activity no later than October 1, 1993, or, for new sources or existing sources which fail to submit a complete permit application by October 1, 1992, one year after receipt of a complete permit application;

(B) For any municipality with a population of less than 250,000 which submits a timely Part I group application under paragraph (e)(2)(i)(B) of this section, the Director shall issue or deny permits for storm water discharges associated with industrial activity no later than May 17, 1994, or, for any such municipality which fails to submit a complete Part II group permit application by May 17, 1993, one year after receipt of a complete permit application;

(ii) The Director shall issue or deny permits for large municipal separate storm sewer systems no later than November 16, 1993, or, for new sources or existing sources which fail to submit a complete permit application by No-

vember 16, 1992, one year after receipt of a complete permit application;

(iii) The Director shall issue or deny permits for medium municipal separate storm sewer systems no later than May 17, 1994, or, for new sources or existing sources which fail to submit a complete permit application by May 17, 1993, one year after receipt of a complete permit application.

(8) For any storm water discharge associated with small construction activities identified in paragraph (b)(15)(i) of this section, see § 122.21(c)(1). Discharges from these sources require permit authorization by March 10, 2003, unless designated for coverage before then.

(9) For any discharge from a regulated small MS4, the permit application made under § 122.33 must be submitted to the Director by:

(i) March 10, 2003 if designated under § 122.32(a)(1) unless your MS4 serves a jurisdiction with a population under 10,000 and the NPDES permitting authority has established a phasing schedule under § 123.35(d)(3) (see § 122.33(c)(1)); or

(ii) Within 180 days of notice, unless the NPDES permitting authority grants a later date, if designated under § 122.32(a)(2) (see § 122.33(c)(2)).

(f) *Petitions.* (1) Any operator of a municipal separate storm sewer system may petition the Director to require a separate NPDES permit (or a permit issued under an approved NPDES State program) for any discharge into the municipal separate storm sewer system.

(2) Any person may petition the Director to require a NPDES permit for a discharge which is composed entirely of storm water which contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

(3) The owner or operator of a municipal separate storm sewer system may petition the Director to reduce the Census estimates of the population served by such separate system to account for storm water discharged to combined sewers as defined by 40 CFR 35.2005(b)(11) that is treated in a publicly owned treatment works. In municipalities in which combined sewers are operated, the Census estimates of

population may be reduced proportional to the fraction, based on estimated lengths, of the length of combined sewers over the sum of the length of combined sewers and municipal separate storm sewers where an applicant has submitted the NPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of any combined sewer overflow discharge point.

(4) Any person may petition the Director for the designation of a large, medium, or small municipal separate storm sewer system as defined by paragraph (b)(4)(iv), (b)(7)(iv), or (b)(16) of this section.

(5) The Director shall make a final determination on any petition received under this section within 90 days after receiving the petition with the exception of petitions to designate a small MS4 in which case the Director shall make a final determination on the petition within 180 days after its receipt.

(g) *Conditional exclusion for "no exposure" of industrial activities and materials to storm water.* Discharges composed entirely of storm water are not storm water discharges associated with industrial activity if there is "no exposure" of industrial materials and activities to rain, snow, snowmelt and/or runoff, and the discharger satisfies the conditions in paragraphs (g)(1) through (g)(4) of this section. "No exposure" means that all industrial materials and activities are protected by a storm resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. Industrial materials or activities include, but are not limited to, material handling equipment or activities, industrial machinery, raw materials, intermediate products, by-products, final products, or waste products. Material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product or waste product.

(1) *Qualification.* To qualify for this exclusion, the operator of the discharge must:

(i) Provide a storm resistant shelter to protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff;

(ii) Complete and sign (according to §122.22) a certification that there are no discharges of storm water contaminated by exposure to industrial materials and activities from the entire facility, except as provided in paragraph (g)(2) of this section;

(iii) Submit the signed certification to the NPDES permitting authority once every five years;

(iv) Allow the Director to inspect the facility to determine compliance with the "no exposure" conditions;

(v) Allow the Director to make any "no exposure" inspection reports available to the public upon request; and

(vi) For facilities that discharge through an MS4, upon request, submit a copy of the certification of "no exposure" to the MS4 operator, as well as allow inspection and public reporting by the MS4 operator.

(2) *Industrial materials and activities not requiring storm resistant shelter.* To qualify for this exclusion, storm resistant shelter is not required for:

(i) Drums, barrels, tanks, and similar containers that are tightly sealed, provided those containers are not deteriorated and do not leak ("Sealed" means banded or otherwise secured and without operational taps or valves);

(ii) Adequately maintained vehicles used in material handling; and

(iii) Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt).

(3) *Limitations.* (1) Storm water discharges from construction activities identified in paragraphs (b)(14)(x) and (b)(15) are not eligible for this conditional exclusion.

(ii) This conditional exclusion from the requirement for an NPDES permit is available on a facility-wide basis only, not for individual outfalls. If a facility has some discharges of storm water that would otherwise be "no exposure" discharges, individual permit requirements should be adjusted accordingly.

(iii) If circumstances change and industrial materials or activities become exposed to rain, snow, snow melt, and/or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who

anticipates changes in circumstances should apply for and obtain permit authorization prior to the change of circumstances.

(iv) Notwithstanding the provisions of this paragraph, the NPDES permitting authority retains the authority to require permit authorization (and deny this exclusion) upon making a determination that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

(4) *Certification.* The no exposure certification must require the submission of the following information, at a minimum, to aid the NPDES permitting authority in determining if the facility qualifies for the no exposure exclusion:

(i) The legal name, address and phone number of the discharger (see § 122.21(b));

(ii) The facility name and address, the county name and the latitude and longitude where the facility is located;

(iii) The certification must indicate that none of the following materials or activities are, or will be in the foreseeable future, exposed to precipitation:

(A) Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed to storm water;

(B) Materials or residuals on the ground or in storm water inlets from spills/leaks;

(C) Materials or products from past industrial activity;

(D) Material handling equipment (except adequately maintained vehicles);

(E) Materials or products during loading/unloading or transporting activities;

(F) Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);

(G) Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

(H) Materials or products handled/stored on roads or railways owned or maintained by the discharger;

(I) Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);

(J) Application or disposal of process wastewater (unless otherwise permitted); and

(K) Particulate matter or visible deposits of residuals from roof stacks/vents not otherwise regulated, i.e., under an air quality control permit, and evident in the storm water outflow;

(iv) All "no exposure" certifications must include the following certification statement, and be signed in accordance with the signatory requirements of § 122.22: "I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed under paragraph (g)(2)) of this section. I understand that I am obligated to submit a no exposure certification form once every five years to the NPDES permitting authority and, if requested, to the operator of the local MS4 into which this facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility. 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 gathered and evaluated the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false

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information, including the possibility of fine and imprisonment for knowing violations.”

[55 FR 48063, Nov. 16, 1990]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 122.26, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 122.27 Silvicultural activities (applicable to State NPDES programs, see § 123.25).

(a) *Permit requirement.* Silvicultural point sources, as defined in this section, as point sources subject to the NPDES permit program.

(b) *Definitions.* (1) *Silvicultural point source* means any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. The term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA section 404 permit (See 33 CFR 209.120 and part 233).

(2) *Rock crushing and gravel washing facilities* means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR part 436, subpart B, including the effluent limitations guidelines).

(3) *Log sorting and log storage facilities* means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR part 429, subpart I, including the effluent limitations guidelines).

§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).

(a) *Coverage.* The Director may issue a general permit in accordance with the following:

(1) *Area.* The general permit shall be written to cover one or more categories or subcategories of discharges or sludge use or disposal practices or facilities described in the permit under paragraph (a)(2)(ii) of this section, except those covered by individual permits, within a geographic area. The area should correspond to existing geographic or political boundaries such as:

- (i) Designated planning areas under sections 208 and 303 of CWA;
- (ii) Sewer districts or sewer authorities;
- (iii) City, county, or State political boundaries;
- (iv) State highway systems;
- (v) Standard metropolitan statistical areas as defined by the Office of Management and Budget;
- (vi) Urbanized areas as designated by the Bureau of the Census according to criteria in 30 FR 15202 (May 1, 1974); or
- (vii) Any other appropriate division or combination of boundaries.

(2) *Sources.* The general permit may be written to regulate one or more categories or subcategories of discharges or sludge use or disposal practices or facilities, within the area described in paragraph (a)(1) of this section, where the sources within a covered subcategory of discharges are either:

- (i) Storm water point sources; or (ii) One or more categories or subcategories of point sources other than storm water point sources, or one or more categories or subcategories of “treatment works treating domestic sewage”, if the sources or “treatment works treating domestic sewage” within each category or subcategory all:
 - (A) Involve the same or substantially similar types of operations;
 - (B) Discharge the same types of wastes or engage in the same types of sludge use or disposal practices;
 - (C) Require the same effluent limitations, operating conditions, or standards for sewage sludge use or disposal;
 - (D) Require the same or similar monitoring; and (E) In the opinion of the

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TITLE 40 -- PROTECTION OF ENVIRONMENT
CHAPTER I -- ENVIRONMENTAL PROTECTION AGENCY
SUBCHAPTER D -- WATER PROGRAMS
PART 122 -- EPA ADMINISTERED PERMIT PROGRAMS: THE NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM
SUBPART C -- PERMIT CONDITIONS

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§ 122.44 Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs, see § 123.25).

In addition to the conditions established under § 122.43(a), each NPDES permit shall include conditions meeting the following requirements when applicable.

(a)(1) Technology-based effluent limitations and standards based on: effluent limitations and standards promulgated under section 301 of the CWA, or new source performance standards promulgated under section 306 of CWA, on case-by-case effluent limitations determined under section 402(a)(1) of CWA, or a combination of the three, in accordance with § 125.3 of this chapter. For new sources or new dischargers, these technology based limitations and standards are subject to the provisions of § 122.29(d) (protection period).

(2) Monitoring waivers for certain guideline-listed pollutants.

(i) The Director may authorize a discharger subject to technology-based effluent limitations guidelines and standards in an NPDES permit to forego sampling of a pollutant found at 40 CFR Subchapter N of this chapter if the discharger has demonstrated through sampling and other technical factors that the pollutant is not present in the discharge or is present only at background levels from intake water and without any increase in the pollutant due to activities of the discharger.

(ii) This waiver is good only for the term of the permit and is not available during the term of the first permit issued to a discharger.

(iii) Any request for this waiver must be submitted when applying for a reissued permit or modification of a reissued permit. The request must demonstrate through sampling or other technical information, including information generated during an earlier permit term that the pollutant is not present in the discharge or is present only at background levels from intake water and without any increase in the pollutant due to activities of the discharger.

(iv) Any grant of the monitoring waiver must be included in the permit as an express permit condition and the reasons supporting the grant must be documented in the permit's fact sheet or statement of basis.

(v) This provision does not supersede certification processes and requirements already established in existing effluent limitations guidelines and standards.

(b)(1) Other effluent limitations and standards under sections 301, 302, 303, 307, 318 and 405 of CWA. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in the permit, the Director shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition. See also § 122.41(a).

(2) Standards for sewage sludge use or disposal under section 405(d) of the CWA unless those standards have been included in a permit issued under the appropriate provisions of subtitle C of the Solid Waste Disposal Act, Part C of Safe Drinking Water Act, the Marine Protection, Research, and Sanctuaries Act of 1972, or the Clean Air Act, or under State permit programs approved by the Administrator. When there are no applicable standards for sewage sludge use or disposal, the permit may include requirements developed on a case-by-case basis to protect public health and the environment from any adverse effects which may occur from toxic pollutants in sewage sludge. If any applicable standard for sewage sludge use or disposal is promulgated under section 405(d) of the CWA and that standard is more stringent than any limitation on the pollutant or practice in the permit, the Director may initiate proceedings under these regulations to modify or revoke and reissue the permit to conform to the standard for sewage sludge use or disposal.

(3) Requirements applicable to cooling water intake structures under section 316(b) of the CWA, in accordance with part 125, subparts I, J, and N of this chapter.

(c) Reopener clause: For any permit issued to a treatment works treating domestic sewage (including "sludge-only facilities"), the Director shall include a reopener clause to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the CWA. The Director may promptly modify or revoke and reissue any permit containing the reopener clause required by this paragraph if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

(d) Water quality standards and State requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under sections 301, 304, 306, 307, 318 and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.

(i) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.

(ii) When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water.

(iii) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a State numeric criteria within a

State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

(iv) When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.

(v) Except as provided in this subparagraph, when the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, toxicity testing data, or other information, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative criterion within an applicable State water quality standard, the permit must contain effluent limits for whole effluent toxicity. Limits on whole effluent toxicity are not necessary where the permitting authority demonstrates in the fact sheet or statement of basis of the NPDES permit, using the procedures in paragraph (d)(1)(ii) of this section, that chemical-specific limits for the effluent are sufficient to attain and maintain applicable numeric and narrative State water quality standards.

(vi) Where a State has not established a water quality criterion for a specific chemical pollutant that is present in an effluent at a concentration that causes, has the reasonable potential to cause, or contributes to an excursion above a narrative criterion within an applicable State water quality standard, the permitting authority must establish effluent limits using one or more of the following options:

(A) Establish effluent limits using a calculated numeric water quality criterion for the pollutant which the permitting authority demonstrates will attain and maintain applicable narrative water quality criteria and will fully protect the designated use. Such a criterion may be derived using a proposed State criterion, or an explicit State policy or regulation interpreting its narrative water quality criterion, supplemented with other relevant information which may include: EPA's Water Quality Standards Handbook, October 1983, risk assessment data, exposure data, information about the pollutant from the Food and Drug Administration, and current EPA criteria documents; or

(B) Establish effluent limits on a case-by-case basis, using EPA's water quality criteria, published under section 304(a) of the CWA, supplemented where necessary by other relevant information; or

(C) Establish effluent limitations on an indicator parameter for the pollutant of concern, provided:

(1) The permit identifies which pollutants are intended to be controlled by the use of the effluent limitation;

(2) The fact sheet required by § 124.56 sets forth the basis for the limit, including a finding that compliance with the effluent limit on the indicator parameter will result in controls on the pollutant of concern which are sufficient to attain and maintain applicable water quality standards;

(3) The permit requires all effluent and ambient monitoring necessary to show that during the term of the permit the limit on the indicator parameter continues to attain and maintain applicable water quality standards; and

(4) The permit contains a reopener clause allowing the permitting authority to modify or revoke and reissue the permit if the limits on the indicator parameter no longer attain and maintain applicable water quality standards.

(vii) When developing water quality-based effluent limits under this paragraph the permitting authority shall ensure that:

(A) The level of water quality to be achieved by limits on point sources established under this paragraph is derived from, and complies with all applicable water quality standards; and

(B) Effluent limits developed to protect a narrative water quality criterion, a numeric water quality criterion, or both, are consistent with the assumptions and requirements of any available wasteload allocation for the discharge prepared by the State and approved by EPA pursuant to 40 CFR 130.7.

(2) Attain or maintain a specified water quality through water quality related effluent limits established under section 302 of CWA;

(3) Conform to the conditions to a State certification under section 401 of the CWA that meets the requirements of § 124.53 when EPA is the permitting authority. If a State certification is stayed by a court of competent jurisdiction or an appropriate State board or agency, EPA shall notify the State that the Agency will deem certification waived unless a finally effective State certification is received within sixty days from the date of the notice. If the State does not forward a finally effective certification within the sixty day period, EPA shall include conditions in the permit that may be necessary to meet EPA's obligation under section 301(b)(1)(C) of the CWA;

(4) Conform to applicable water quality requirements under section 401(a)(2) of CWA when the discharge affects a State other than the certifying State;

(5) Incorporate any more stringent limitations, treatment standards, or schedule of compliance requirements established under Federal or State law or regulations in accordance with section 301(b)(1)(C) of CWA;

(6) Ensure consistency with the requirements of a Water Quality Management plan approved by EPA under section 208(b) of CWA;

(7) Incorporate section 403(c) criteria under part 125, subpart M, for ocean discharges;

(8) Incorporate alternative effluent limitations or standards where warranted by "fundamentally different factors," under 40 CFR part 125, subpart D;

(9) Incorporate any other appropriate requirements, conditions, or limitations (other than effluent limitations) into a new source permit to the extent allowed by the National Environmental Policy Act, 42 U.S.C. 4321 et seq. and section 511 of the CWA, when EPA is the permit issuing authority. (See § 122.29(c)).

(e) Technology-based controls for toxic pollutants. Limitations established under paragraphs (a), (b), or (d) of this section, to control pollutants meeting the criteria listed in paragraph (e)(1) of this section. Limitations will be established in accordance with paragraph (e)(2) of this section. An explanation of the development of these limitations shall be included in the fact sheet under § 124.56(b)(1)(i).

(1) Limitations must control all toxic pollutants which the Director determines (based on information reported in a permit application under § 122.21(g)(7) or in a notification under § 122.42(a)(1) or on other information) are or may be discharged at a level greater than the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under § 125.3(c) of this chapter; or

(2) The requirement that the limitations control the pollutants meeting the criteria of paragraph (e)(1) of this section will be satisfied by:

(i) Limitations on those pollutants; or

(ii) Limitations on other pollutants which, in the judgment of the Director, will provide treatment of the pollutants under paragraph (e)(1) of this section to the levels required by § 125.3(c).

(f) Notification level. A "notification level" which exceeds the notification level of § 122.42(a)(1) (i), (ii) or (iii), upon a petition from the permittee or on the Director's initiative. This new notification level may not exceed the level which can be achieved by the technology-based treatment requirements appropriate to the permittee under § 125.3(c)

(g) Twenty-four hour reporting. Pollutants for which the permittee must report violations of maximum daily discharge limitations under § 122.41(1)(6)(ii)(C) (24-hour reporting) shall be listed in the permit. This list shall include any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.

(h) Durations for permits, as set forth in § 122.46.

(i) Monitoring requirements. In addition to § 122.48, the following monitoring requirements:

(1) To assure compliance with permit limitations, requirements to monitor:

(i) The mass (or other measurement specified in the permit) for each pollutant limited in the permit;

(ii) The volume of effluent discharged from each outfall;

(iii) Other measurements as appropriate including pollutants in internal waste streams under § 122.45(i); pollutants in intake water for net limitations under § 122.45(f); frequency, rate of discharge, etc., for noncontinuous discharges under § 122.45(e); pollutants subject to notification requirements under § 122.42(a); and pollutants in sewage sludge or other monitoring as specified in 40 CFR part 503; or as determined to be necessary on a case-by-case basis pursuant to section 405(d)(4) of the CWA.

(iv) According to test procedures approved under 40 CFR Part 136 for the analyses of pollutants or another method is required under 40 CFR subchapters N or O. In the case of pollutants for which there are no approved methods under 40 CFR Part 136 or otherwise required under 40 CFR subchapters N or O, monitoring must be conducted according to a test procedure specified in the permit for such pollutants.

(2) Except as provided in paragraphs (i)(4) and (i)(5) of this section, requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year. For sewage sludge use or disposal practices, requirements to monitor and report results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the sewage sludge use or disposal practice; minimally this shall be as specified in 40 CFR part 503 (where applicable), but in no case less than once a year.

(3) Requirements to report monitoring results for storm water discharges associated with industrial activity which are subject to an effluent limitation guideline shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once a year.

(4) Requirements to report monitoring results for storm water discharges associated with industrial activity (other than those addressed in paragraph (i)(3) of this section) shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge. At a minimum, a permit for such a discharge must require:

(i) The discharger to conduct an annual inspection of the facility site to identify areas

contributing to a storm water discharge associated with industrial activity and evaluate whether measures to reduce pollutant loadings identified in a storm water pollution prevention plan are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed;

(ii) The discharger to maintain for a period of three years a record summarizing the results of the inspection and a certification that the facility is in compliance with the plan and the permit, and identifying any incidents of non-compliance;

(iii) Such report and certification be signed in accordance with § 122.22; and

(iv) Permits for storm water discharges associated with industrial activity from inactive mining operations may, where annual inspections are impracticable, require certification once every three years by a Registered Professional Engineer that the facility is in compliance with the permit, or alternative requirements.

(5) Permits which do not require the submittal of monitoring result reports at least annually shall require that the permittee report all instances of noncompliance not reported under § 122.41(l) (1), (4), (5), and (6) at least annually.

(j) Pretreatment program for POTWs. Requirements for POTWs to:

(1) Identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging into the POTW subject to Pretreatment Standards under section 307(b) of CWA and 40 CFR part 403.

(2)(i) Submit a local program when required by and in accordance with 40 CFR part 403 to assure compliance with pretreatment standards to the extent applicable under section 307(b). The local program shall be incorporated into the permit as described in 40 CFR part 403. The program must require all indirect dischargers to the POTW to comply with the reporting requirements of 40 CFR part 403.

(ii) Provide a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c) (1), following permit issuance or reissuance.

(3) For POTWs which are "sludge-only facilities," a requirement to develop a pretreatment program under 40 CFR part 403 when the Director determines that a pretreatment program is necessary to assure compliance with Section 405(d) of the CWA.

(k) Best management practices (BMPs) to control or abate the discharge of pollutants when:

(1) Authorized under section 304(e) of the CWA for the control of toxic pollutants and hazardous substances from ancillary industrial activities;

(2) Authorized under section 402(p) of the CWA for the control of storm water discharges;

(3) Numeric effluent limitations are infeasible; or

(4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

NOTE TO PARAGRAPH (k)(4): Additional technical information on BMPs and the elements of BMPs is contained in the following documents: Guidance Manual for Developing Best Management Practices (BMPs), October 1993, EPA No. 833/B-93-004, NTIS No. PB 94-178324, ERIC No. W498); Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices, September 1992, EPA No. 832/R-92-005, NTIS No. PB 92-235951, ERIC No. N482); Storm Water Management for Construction Activities, Developing

Pollution Prevention Plans and Best Management Practices: Summary Guidance, EPA No. 833/R-92-001, NTIS No. PB 93-223550; ERIC No. W139; Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices, September 1992; EPA 832/R-92-006, NTIS No. PB 92-235969, ERIC No. N477; Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices: Summary Guidance, EPA 833/R-92-002, NTIS No. PB 94-133782; ERIC No. W492. Copies of those documents (or directions on how to obtain them) can be obtained by contacting either the Office of Water Resource Center (using the EPA document number as a reference) at (202) 260-7786; or the Educational Resources Information Center (ERIC) (using the ERIC number as a reference) at (800) 276-0462. Updates of these documents or additional BMP documents may also be available. A list of EPA BMP guidance documents is available on the OWM Home Page at <http://www.epa.gov/owm>. In addition, States may have BMP guidance documents.

These EPA guidance documents are listed here only for informational purposes; they are not binding and EPA does not intend that these guidance documents have any mandatory, regulatory effect by virtue of their listing in this note.

(l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under § 122.62.)

(2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(i) Exceptions -- A permit with respect to which paragraph (l)(2) of this section applies may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant, if --

(A) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of a less stringent effluent limitation;

(B)(1) Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance; or

(2) The Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b);

(C) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is no reasonably available remedy;

(D) The permittee has received a permit modification under section 301(c), 301(g), 301(h), 301(i), 301(k), 301(n), or 316(a); or

(E) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

(ii) Limitations. In no event may a permit with respect to which paragraph (l)(2) of this section applies be renewed, reissued, or modified to contain an effluent limitation which is less stringent than required by effluent guidelines in effect at the time the permit is renewed, reissued, or modified. In no event may such a permit to discharge into waters be renewed, issued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of a water quality standard under section 303 applicable to such waters.

(m) Privately owned treatment works. For a privately owned treatment works, any conditions expressly applicable to any user, as a limited co-permittee, that may be necessary in the permit issued to the treatment works to ensure compliance with applicable requirements under this part. Alternatively, the Director may issue separate permits to the treatment works and to its users, or may require a separate permit application from any user. The Director's decision to issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications, and the basis for that decision, shall be stated in the fact sheet for the draft permit for the treatment works.

(n) Grants. Any conditions imposed in grants made by the Administrator to POTWs under sections 201 and 204 of CWA which are reasonably necessary for the achievement of effluent limitations under section 301 of CWA.

(o) Sewage sludge. Requirements under section 405 of CWA governing the disposal of sewage sludge from publicly owned treatment works or any other treatment works treating domestic sewage for any use for which regulations have been established, in accordance with any applicable regulations.

(p) Coast Guard. When a permit is issued to a facility that may operate at certain times as a means of transportation over water, a condition that the discharge shall comply with any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, that establish specifications for safe transportation, handling, carriage, and storage of pollutants.

(q) Navigation. Any conditions that the Secretary of the Army considers necessary to ensure that navigation and anchorage will not be substantially impaired, in accordance with § 124.59 of this chapter.

(r) Great Lakes. When a permit is issued to a facility that discharges into the Great Lakes System (as defined in 40 CFR 132.2), conditions promulgated by the State, Tribe, or EPA pursuant to 40 CFR part 132.

(s) Qualifying State, Tribal, or local programs. (1) For storm water discharges associated with small construction activity identified in § 122.26(b)(15), the Director may include permit conditions that incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. Where a qualifying State, Tribal, or local program does not include one or more of the elements in this paragraph (s)(1), then the Director must include those elements as conditions in the permit. A qualifying State, Tribal, or local erosion and sediment control program is one that includes:

(i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;

(ii) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

(iii) Requirements for construction site operators to develop and implement a storm water pollution prevention plan. (A storm water pollution prevention plan includes site descriptions, descriptions of appropriate control measures, copies of approved State, Tribal or local

requirements, maintenance procedures, inspection procedures, and identification of non-storm water discharges); and

(iv) Requirements to submit a site plan for review that incorporates consideration of potential water quality impacts.

(2) For storm water discharges from construction activity identified in § 122.26(b)(14)(x), the Director may include permit conditions that incorporate qualifying State, Tribal, or local erosion and sediment control program requirements by reference. A qualifying State, Tribal or local erosion and sediment control program is one that includes the elements listed in paragraph (s)(1) of this section and any additional requirements necessary to achieve the applicable technology-based standards of "best available technology" and "best conventional technology" based on the best professional judgment of the permit writer.

HISTORY:

[48 FR 14153, Apr. 1, 1983, as amended at 49 FR 31842, Aug. 8, 1984; 49 FR 38049, Sept. 26, 1984; 50 FR 6940, Feb. 19, 1985; 50 FR 7912, Feb. 27, 1985; 54 FR 256, Jan. 4, 1989; 54 FR 18783, May 2, 1989; 54 FR 23895, June 2, 1989; 57 FR 11413, Apr. 2, 1992; 57 FR 33049, July 24, 1992; 60 FR 15386, Mar. 23, 1995; 64 FR 42434, 42469, Aug. 4, 1999, as corrected at 64 FR 43426, Aug. 10, 1999; 64 FR 68722, 68847, Dec. 8, 1999; 65 FR 30886, 30908, May 15, 2000; 65 FR 43586, 43661, July 13, 2000, withdrawn at 68 FR 13608, 13614, Mar. 19, 2003; 66 FR 53044, 53048, Oct. 18, 2001; 66 FR 65256, 65337, Dec. 18, 2001; 69 FR 41576, 41682, July 9, 2004; 70 FR 60134, 60191, Oct. 14, 2005; 71 FR 35006, 35040, June 16, 2006; 72 FR 11200, 11212, Mar. 12, 2007]

AUTHORITY:

The Clean Water Act, 33 U.S.C. 1251 et seq.

NOTES:

[EFFECTIVE DATE NOTE: 71 FR 35006, 35040, June 16, 2006, revised paragraph (b)(3), effective July 17, 2006; 72 FR 11200, 11212, Mar. 12, 2007, revised paragraph (i)(1)(iv), effective Apr. 11, 2007.]

NOTES APPLICABLE TO ENTIRE CHAPTER:

[PUBLISHER'S NOTE: Nomenclature changes to Chapter I appear at 65 FR 47323, 47324, 47325, Aug. 2, 2000.]

[PUBLISHER'S NOTE: For Federal Register citations concerning Chapter 1 Notice of implementation policy, see: 71 FR 25504, May 1, 2006.]

[PUBLISHER'S NOTE: For Federal Register citations concerning Chapter 1 Findings, see: 74 FR 66496, Dec. 15, 2009.]

[PUBLISHER'S NOTE: For Federal Register citations concerning Chapter I Denials, see: 75 FR 49556, Aug. 13, 2010.]

NOTES APPLICABLE TO ENTIRE PART:

[PUBLISHER'S NOTE: For Federal Register Citations concerning Part 122 policy statements, see: 61 FR 41698, Aug. 9, 1998.]

NOTES TO DECISIONS: COURT AND ADMINISTRATIVE DECISIONS SIGNIFICANTLY DISCUSSING SECTION --

Communities for a Better Environment v State Water Resources Control Bd. (2003, 1st Dist) 109 Cal App 4th 1089, 1 Cal Rptr 3d 76, 2003 CDOS 5149, 2003 Daily Journal DAR 6533, reh den (2003, Cal App 1st Dist) 2003 Cal App LEXIS 1082

Divers' Environmental Conservation Organization v State Water Resources Control Bd. (2006, 4th Dist) 145 Cal App 4th 246. 51 Cal Rptr 3d 497. 2006 CDOS 10951. 36 ELR 20237. reh den (2006.

Tab 4

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

NATURAL RESOURCES DEFENSE
COUNCIL, INC.; SANTA MONICA
BAYKEEPER,

Plaintiffs-Appellants,

v.

COUNTY OF LOS ANGELES; LOS
ANGELES COUNTY FLOOD CONTROL
DISTRICT; MICHAEL ANTONOVICH, in
his official capacity as Supervisor;
YVONNE BURKE, in her official
capacity as Supervisor; GLORIA
MOLINA, in her official capacity as
Supervisor; ZEV YAROSLAVSKY, in
his official capacity as Supervisor;
DEAN D. EFSTATHIOU, in his
official capacity as Acting
Director of Los Angeles County
Department of Public Works; DON
KNABE, in his official capacity as
Supervisor,

Defendants-Appellees.

No. 10-56017

D.C. No.
2:08-cv-01467-
AHM-PLA

ORDER and
OPINION

Appeal from the United States District Court
for the Central District of California
A. Howard Matz, District Judge, Presiding

Argued and Submitted
December 10, 2010—Pasadena, California

Filed July 13, 2011

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ORDER

This Court's Opinion, filed March 10, 2011, and published at 636 F.3d 1235 (9th Cir. 2011), is withdrawn and replaced by the attached Opinion.

With this filing, the panel has voted unanimously to deny Appellees' petition for panel rehearing. Judge Pregerson and Judge M. Smith have voted to deny Appellees' petition for rehearing en banc, and Judge Holland so recommends.

The full court has been advised of the Opinion and petition for rehearing en banc, and no active judge has requested a vote on whether to rehear the matter en banc. Fed. R. App. P. 35.

Accordingly, Appellees' petition for rehearing or for rehearing en banc is DENIED.

No further petitions for rehearing or rehearing en banc will be entertained in this case.

OPINION

Before: Harry Pregerson, and Milan D. Smith, Jr., Circuit Judges, and H. Russel Holland, Senior District Judge.*

Opinion by Judge Milan D. Smith, Jr.

*The Honorable H. Russel Holland, Senior United States District Judge for the District of Alaska, sitting by designation.

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COUNSEL

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Francisco, California, for plaintiffs-appellants Natural Resources Defense Council, Inc. and Santa Monica Baykeeper.

Andrea Sheridan Ordin, Judith A. Fries, Laurie Dods, Los Angeles County Department of County Counsel, Los Angeles, California, Howard Gest, David W. Burhenn, Burhenn & Gest LLP, Los Angeles, California, for defendants-appellees County of Los Angeles, et al.

Gregory Thomas Broderick, Downey Brand, LLP, Sacramento, California, for amicus curiae California State Association of Counties.

Theresa Ann Dunham, Somach Simmons & Dunn, Sacramento, California, for amicus curiae California Stormwater Quality Association.

Kamala D. Harris, Attorney General of California; Kathleen A. Kenealy, Senior Assistant Attorney General; James R. Potter, Jennifer Novak, Deputy Attorneys General, Office of the California Attorney General, Los Angeles, California, for amicus curiae California Regional Water Quality Control Board, Los Angeles Region.

OPINION

M. SMITH, Circuit Judge:

Plaintiffs-Appellants Natural Resources Defense Council and Santa Monica Baykeeper appeal the district court's grant of summary judgment in favor of two municipal entities that Plaintiffs allege are discharging polluted stormwater in violation of the Federal Water Pollution Control Act (the Clean Water Act, Act, or CWA), 86 Stat. 816, codified as amended at 33 U.S.C. § 1251 *et seq.* Plaintiffs contend that Defendants-

Appellees County of Los Angeles (County) and Los Angeles County Flood Control District (District) are discharging polluted urban stormwater runoff collected by municipal separate storm sewer systems (ms4) into navigable waters in Southern California. The levels of pollutants detected in four rivers—the Santa Clara River, the Los Angeles River, the San Gabriel River, and Malibu Creek (collectively, the Watershed Rivers)—exceed the limits allowed in a National Pollutant Discharge Elimination System (NPDES) permit which governs municipal stormwater discharges in the County. Although all parties agree that numerous water-quality standards have been exceeded in the Watershed Rivers, Defendants contend that there is no evidence establishing their responsibility for, or discharge of, stormwater carrying pollutants to the rivers. The district court agreed with Defendants and entered a partial final judgment.

We conclude that the district court erred with respect to the evidence of discharges by the District into two of the Watershed Rivers—the Los Angeles River and San Gabriel River. Specifically, Plaintiffs provided evidence that the monitoring stations for the Los Angeles and San Gabriel Rivers are located in a section of ms4 owned and operated by the District and, after stormwater known to contain standards-exceeding pollutants passes through these monitoring stations, this polluted stormwater is discharged into the two rivers. Accordingly, Plaintiffs were entitled to summary judgment on the District's liability for discharges into the Los Angeles River and San Gabriel River, and therefore we reverse the district court's grant of summary judgment in favor of the District on these claims.

Plaintiffs, however, failed to meet their evidentiary burden with respect to discharges by the District into the Santa Clara River and Malibu Creek. Plaintiffs did not provide evidence sufficient for the district court to determine if stormwater discharged from an ms4 controlled by the District caused or contributed to pollution exceedances located in these two rivers.

Similarly, Plaintiffs did not delineate how stormwater from MS4s controlled by the County caused or contributed to exceedances in any of the Watershed Rivers. Accordingly, we affirm the district court's grant of summary judgment in favor of the Defendants on these claims.

FACTUAL AND PROCEDURAL BACKGROUND

I. Stormwater Runoff in Los Angeles County

A. The MS4

Stormwater runoff is surface water generated by precipitation events, such as rainstorms, which flows over streets, parking lots, commercial sites, and other developed parcels of land. Whereas natural, vegetated soil can absorb rainwater and capture pollutants, paved surfaces and developed land can do neither. When stormwater flows over urban environs, it collects "suspended metals, sediments, algae-promoting nutrients (nitrogen and phosphorus), floatable trash, used motor oil, raw sewage, pesticides, and other toxic contaminants[.]" *Env'tl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832, 840 (9th Cir. 2003). This runoff is a major contributor to water pollution in Southern California rivers and the Pacific Ocean and contributes to the sickening of many ocean users each year.

The County is a sprawling 4,500 square-mile amalgam of populous incorporated cities and significant swaths of unincorporated land. The District is a public entity governed by the Los Angeles County Board of Supervisors and the Department of Public Works. The District is comprised of 84 cities and some unincorporated areas of the County. The County and the District are separate legal entities.

In the District, stormwater runoff is collected by thousands of storm drains located in each municipality and channeled to a storm sewer system. The municipalities in the District oper-

ate ms4s¹ to collect and channel stormwater. The County also operates an ms4 for certain unincorporated areas. Unlike a sanitary sewer system, which transports municipal sewage for treatment at a wastewater facility, or a combined sewer system, which transports sewage and stormwater for treatment, ms4s contain and convey only untreated stormwater. *See* 40 C.F.R. § 122.26(a)(7), (b)(8). In the County, municipal ms4s are “highly interconnected” because the District allows each municipality to connect its storm drains to the District’s extensive flood-control and storm-sewer infrastructure (the MS4).² That infrastructure includes 500 miles of open channels and 2,800 miles of storm drains. The length of the MS4 system and the locations of all storm drain connections are not known exactly because a comprehensive map of the storm drain system does not exist. While the number and location of storm drains are too numerous to catalogue, it is undisputed that the MS4 collects and channels stormwater runoff from

¹Under Federal Regulations, an ms4 is:

a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body . . . having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity . . .

(ii) Designed or used for collecting or conveying storm water;

(iii) Which is not a combined sewer; and

(iv) Which is not part of a Publicly Owned Treatment Works (POTW)

40 C.F.R. § 122.26(b)(8).

²Throughout this Opinion, reference is made to both “ms4” and “the MS4.” The former is a generic reference to municipal separate storm sewer systems without regard to their particular location, while the latter specifically refers to the flood control and storm-sewer infrastructure described *supra* that exists in the County and is controlled by the District.

across the County. That stormwater is channeled in the MS4 to various watercourses including the four Watershed Rivers at the heart of this litigation: the Los Angeles River, the San Gabriel River, the Santa Clara River, and Malibu Creek. The Watershed Rivers drain into the Pacific Ocean at Santa Monica Bay, Los Angeles Harbor, and Long Beach Harbor.

The gravamen of Plaintiffs' action is that by allowing untreated and heavily-polluted stormwater to flow unabated from the MS4 into the Watershed Rivers, and eventually into the Pacific Ocean, Defendants have violated the Clean Water Act.

B. The Clean Water Act and NPDES Permit

The Clean Water Act is the nation's primary water-pollution-control law. The Act's purpose is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). "To serve those ends, the Act prohibits 'the discharge of any pollutant by any person' unless done in compliance with some provision of the Act." *S. Fl. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 102 (2004) (quoting 33 U.S.C. § 1311(a)). "Discharge of a pollutant" is defined as "any addition of any pollutant to navigable waters from any point source[.]" 33 U.S.C. § 1362(12); see *Comm. to Save Mokelumne River v. East Bay Mun. Util. Dist.*, 13 F.3d 305, 308 (9th Cir. 1993) (characterizing "discharge" as "'add[ing]' pollutants from the outside world to navigable water").

Under the Clean Water Act, ms4s fall under the definition of "point sources." 33 U.S.C. § 1362(14). A point source is "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." 33 U.S.C. § 1362(14).

A person or entity wishing to add pollutants to navigable waters must comply with the NPDES, which “requires dischargers to obtain permits that place limits on the type and quantity of pollutants that can be released into the Nation’s waters.” *Miccousukee Tribe*, 541 U.S. at 102; 33 U.S.C. § 1342(a), (p). The Act “generally prohibits the ‘discharge of any pollutant’ . . . from a ‘point source’ into the navigable waters of the United States’” unless the point source is covered by an NPDES permit. *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1163 (9th Cir. 1999) (quoting 33 U.S.C. §§ 1311(a), 1362(12)(A)) (emphasis added); see also *Arkansas v. Oklahoma*, 503 U.S. 91, 101-02 (1992) (describing NPDES permitting system). An NPDES permit requires its holder—the “permittee”—to follow the requirements of numerous Clean Water Act provisions, see 33 U.S.C. § 1342(a), which include effluent limitations, water-quality standards, water monitoring obligations, public reporting mechanisms, and certain discharge requirements. See *id.* §§ 1311, 1312, 1314, 1316, 1317, 1318, 1343.

The Act uses two water-quality-performance standards, by which a discharger of water may be evaluated—“effluent limitations” and “water quality standards.” *Arkansas v. Oklahoma*, 503 U.S. at 101 (citing 33 U.S.C. §§ 1311, 1313, 1314); see also *Sierra Club v. Union Oil Co. of Calif.*, 813 F.2d 1480, 1483 (9th Cir. 1987), *vacated on other grounds*, 485 U.S. 931 (1988), *reinstated*, 853 F.2d 667 (9th Cir. 1988). An effluent limitation is “any restriction established by a State or the [Environmental Protection Agency (EPA)] Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters. . . .” 33 U.S.C. § 1362(11). An effluent-limitation guideline is determined in light of “‘the best practicable control technology currently available.’” *Union Oil*, 813 F.2d at 1483 (quoting 33 U.S.C. § 1311(b)(1)(A)).

Water-quality standards “are used as a supplementary basis for effluent limitations, so that numerous dischargers, despite

their individual compliance with technology-based limitations, can be regulated to prevent water quality from falling below acceptable levels.” *Union Oil*, 813 F.2d at 1483 (citing *EPA v. Calif. ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 n.12 (1976) (hereafter *EPA v. Calif.*)). Water-quality standards are developed in a two-step process. First, the EPA, or state water authorities establish a waterway’s “beneficial use.” *Natural Res. Def. Council, Inc. v. EPA*, 16 F.3d 1395, 1400 (4th Cir. 1993); *see also* Cal. Water Code § 13050(f) (“Beneficial uses’ of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.”). Once the beneficial use is determined, water quality criteria that will yield the desired water conditions are formulated and implemented. *See NRDC v. EPA*, 16 F.3d at 1400; *see also* 33 U.S.C. § 1313(a), (c)(2)(A); 40 C.F.R. § 131.3(i) (“Water quality standards are provisions of State or Federal law which consist of a designated use or uses for the waters of the United States and water quality criteria for such waters based upon such uses.”).

Unlike effluent limitations, which are promulgated by the EPA to achieve a certain level of pollution reduction in light of available technology, water-quality standards emanate from the state boards charged with managing their domestic water resources. *See Arkansas v. Oklahoma*, 503 U.S. at 101. The EPA gives the states guidance in drafting water-quality standards and “state authorities periodically review water quality standards and secure the EPA’s approval of any revisions in the standards.” *Id.*

The EPA has authorized the State of California to develop water-quality standards and issue NPDES permits. Under the Porter-Cologne Water Quality Control Act, California state law designates the State Water Resources Control Board and nine regional boards as the principal state agencies for enforce-

ing federal and state water pollution law and for issuing permits. *See* Cal. Water Code §§ 13000, 13001, 13140, 13240, 13370, 13377. Beginning in 1990, the California State Water Resources Control Board for the Los Angeles Region (the Regional Board) issued an NPDES permit (the Permit) to cover stormwater discharges by the County, the District, and 84 incorporated municipalities in the County (collectively the Permittees or Co-Permittees).³ *See City of Arcadia v. State Water Res. Control Bd.*, 119 Cal. Rptr. 3d 232, 240-41 (Cal. Ct. App. 2010). The Permit was renewed in 1996, 2001, 2006, and 2007.

The Permit is divided into two broad sections: findings by the Regional Board and an order authorizing and governing the Permittees' discharges (Order). The findings cover many introductory and background subjects, including a history of NPDES permitting in the County; applicable state and federal laws governing stormwater discharges; studies conducted by the County and researchers about the deleterious effects of polluted stormwater; coverage and implementation provisions; and guidelines for administrative review of Permit provisions. The Permit covers "all areas within the boundaries of the Permittee municipalities . . . over which they have regulatory jurisdiction as well as unincorporated areas in Los Angeles County within the jurisdiction of the Regional Board." In total, the Permit governs municipal stormwater discharge across more than 3,100 square miles of land in the County.

The Permit relates the many federal and state regulations governing stormwater discharges to Southern California's watercourses. Among these regulations is the Water Quality Control Plan for the Los Angeles Region (the Basin Plan). Under California law, the regional boards' "water quality plans, called 'basin plans,' must address the beneficial uses to

³"Co-permittee means a permittee to a NPDES permit that is only responsible for permit conditions relating to the discharge for which it is operator." 40 C.F.R. § 122.26(b)(1).

be protected as well as water quality objectives, and they must establish a program of implementation.” *City of Arcadia*, 119 Cal. Rptr. 3d at 240 (quoting *City of Burbank v. State Water Res. Control Bd.*, 108 P.3d 862, 865 (Cal. 2005) (citing Cal. Water Code § 13050(j))). The Permit provides that “[t]he Basin Plan designates beneficial uses of receiving waters and specifies both narrative and numerical water quality objectives for the receiving water in Los Angeles County.” “Receiving waters” are defined as all surface water bodies in the Los Angeles Region that are identified in the Basin Plan. Permittees are to assure that storm water discharges from the MS4 shall neither cause nor contribute to the exceedance of water quality standards and objectives nor create conditions of nuisance in the receiving waters, and that the discharge of non-storm water to the MS4 has been effectively prohibited. The Permit incorporates and adopts the Basin Plan, which sets limits on bacteria and contaminants for the receiving waters of Southern California. The water-quality standards limit, among other pollutants, the levels of ammonia, fecal coliform bacteria, arsenic, mercury, and cyanide in Southern California’s inland rivers.

The Permit contains myriad prohibitions and conditions regarding discharges into and from the MS4. Under Part 1, the Permittees are directed to “effectively prohibit non-storm water discharges into the MS4 and watercourses” unless allowed by an NPDES permit. Under Part 2, titled “Receiving Water Limitations,” “discharges from the MS4 that cause or contribute to the violation of the Water Quality Standards or water quality objectives are prohibited.” The “Water Quality Standards and Water Quality Objectives” are defined in the Permit as “water quality criteria contained in the Basin Plan, the California Ocean Plan, the National Toxics Rule, the California Toxics Rule, and other state or federal approved surface water quality plans. Such plans are used by the Regional Board to regulate all discharges, including storm water discharges.”

The Permit, in Part 2.3, provides that Permittees “shall comply” with the MS4 discharge prohibitions, set forth in Parts 2.1 and 2.2, “through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with [the Los Angeles Stormwater Quality Management Program (SQMP)] and its components and other requirements of this Order. . . .” The SQMP includes “descriptions of programs, collectively developed by the Permittees in accordance with provisions of the NPDES Permit, to comply with applicable federal and state law.” Part 2.3 further provides that “[i]f exceedances of Water Quality Objectives or Water Quality Standards [] persist, notwithstanding implementation of the SQMP and its components and other requirements of this permit,” Permittees “shall assure compliance with discharge prohibitions and receiving water limitations” by engaging in an “iterative process” procedure:

a) Upon a determination by either the Permittee or the Regional Board that discharges are causing or contributing to an exceedance of an applicable Water Quality Standard, the Permittee shall promptly notify and thereafter submit a Receiving Water Limitations (RWL) Compliance Report . . . to the Regional Board that describes [Best Management Practices (BMPs)] that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of Water Quality Standards.

. . .

c) Within 30 days following the approval of the RWL Compliance Report, the Permittee shall revise the SQMP and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an imple-

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mentation schedule, and any additional monitoring required.

d) Implement the revised SQMP and its components and monitoring program according to the approved schedule.

[Part 2.4] So long as the Permittee has complied with the procedures set forth above and is implementing the revised SQMP and its components, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Board to develop additional BMPs.

When a violation arises, a Permittee must adhere to the procedures in its Compliance Report until the exceedances abate.

Part 3 of the Permit, titled “Storm Water Quality Management Program (SQMP) Implementation,” provides that “[e]ach Permittee shall, at a minimum, implement the SQMP.” Part 3.A.3 requires Permittees to “implement additional controls, where necessary, to reduce the discharge of pollutants in storm water to the [Maximum Extent Practicable (MEP)].” Part 3.B requires the implementation of BMPs by the Permittees. Part 3.G specifies that each Permittee is vested with the “necessary legal authority” to prohibit discharges to the MS4, and the Permittees are directed to develop storm-water and urban runoff ordinances for its jurisdiction.

The Permit has both self-monitoring and public-reporting requirements, which include: (1) monitoring of “mass emissions” at seven mass emission monitoring stations; (2) Water Column Toxicity Monitoring; (3) Tributary Monitoring; (4) Shoreline Monitoring; (5) Trash Monitoring; (6) Estuary Sampling; (7) Bioassessment; and (8) Special Studies.

This case concerns high levels of pollutants, particularly heavy metals and fecal bacteria, identified by mass-emissions

monitoring stations for the four Watershed Rivers (the Monitoring Stations). Mass-emissions monitoring measures *all* constituents present in water, and the readings give a cumulative picture of the pollutant load in a waterbody. According to the Permit, the purpose of mass-emissions monitoring is to (1) estimate the mass emissions from the MS4, (2) assess trends in the mass emissions over time, and (3) determine if the MS4 is contributing to exceedances of Water Quality Standards by comparing results to the applicable standards in the Basin Plan. The Permit establishes that the Principal Permittee, which is the District, shall monitor the mass-emissions stations. The Permit requires that mass-emission readings be taken five times per year for the Watershed Rivers.

The Los Angeles River and San Gabriel River Monitoring Stations are located in a channelized portion of the MS4 that is owned and operated by the District. *See* Excerpts of Record at 11; *see also* Dist. Ct. Docket No. 101: Declaration of Aaron Colangelo Ex. N: Deposition of Mark Pestrella at 476-78. The Los Angeles River Monitoring Station is located in the City of Long Beach in “a concrete lined trapezoidal channel.”⁴ The Los Angeles River Monitoring Station measures “total upstream tributary drainage” of 825 square miles, as the Los Angeles River is the largest watershed outlet in the County. The San Gabriel River Monitoring Station is located in Pico Rivera and measures an upstream tributary watershed of 450 square miles.

The Malibu Creek Monitoring Station is not located within a channelized portion of the MS4 but at an “existing stream gage station” near Malibu Canyon Road. It measures 105

⁴“Section Two: Site Descriptions,” Los Angeles Cnty. Dept. of Pub. Works, *available at* http://dpw.lacounty.gov/wmd/npdes/9899_report/SiteDesc.pdf (last accessed July 6, 2011); *see also* “Section Two: Site Descriptions,” Los Angeles Cnty. Dept. of Pub. Works, *available at* http://dpw.lacounty.gov/wmd/NPDES/2006-07_report%5CSection%202.pdf (last accessed July 6, 2011).

miles of tributary watershed. The Santa Clara River Monitoring Station is located in the City of Santa Clara and measures an upstream tributary area of 411 square miles.⁵

C. Water-Quality Exceedances in the Watershed Rivers

Between 2002 and 2008, the four Monitoring Stations identified hundreds of exceedances of the Permit's water-quality standards. These water-quality exceedances are not disputed. For instance, monitoring for the Los Angeles and San Gabriel Rivers showed 140 separate exceedances. These included high levels of aluminum, copper, cyanide, fecal coliform bacteria, and zinc in the rivers. Further, ocean monitoring at Surfrider Beach showed that there were 126 separate bacteria exceedances on 79 days, including 29 days where the fecal coliform bacteria limit was exceeded.

The District admits that it conveys pollutants via the MS4, but contends that its infrastructure alone does not generate or discharge pollutants. According to Defendants, the District conveys the collective discharges of the numerous "up-sewer" municipalities. Moreover, Defendants identify thousands of permitted dischargers whose pollutants are reaching the Watershed Rivers:

- (1) Los Angeles River watershed: (a) at least 1,344 NPDES-permitted industrial and 488 construction stormwater dischargers allowed to discharge during the time period relevant to the case; (b) three wastewater treatment plants; and (c) 42 separate incorporated cities within the Los Angeles River watershed discharging into the river upstream of the mass emission station.

⁵"Section Two: Site Descriptions," Los Angeles Cnty. Dept. of Pub. Works, *available at* http://dpw.lacounty.gov/wmd/NPDES/2006-07_report%5CSection%202.pdf (last accessed July 6, 2011).

(2) San Gabriel River watershed: (a) at least 276 industrial and 232 construction stormwater dischargers during the relevant time period; (b) at least 20 other industrial dischargers that were specifically permitted to discharge pollutants in excess of the water quality standards at issue in this action; (c) two wastewater treatment plants; and (d) 21 separate incorporated cities discharging into the watershed upstream of the mass emission station.

(3) Santa Clara River watershed: (a) eight dischargers permitted by industrial wastewater discharge permits where the limits in the permit allowed discharges of pollutants at concentrations higher than the water quality standards which plaintiffs contend were exceeded; (b) approximately 26 industrial and 187 construction stormwater dischargers; and (c) the Saugus Wastewater Reclamation Plant.

(4) Malibu Creek watershed: (a) seven industrial wastewater dischargers; and (b) at least five permitted discharges under the general industrial stormwater permit and at least 16 construction sites permitted to discharge under the general construction stormwater permit.

II. Proceedings before the District Court

Based on data self-reported by Defendants, Plaintiffs catalogued the water-quality exceedances in the Watershed Rivers. Beginning on May 31, 2007, Plaintiffs sent a series of notice letters to Defendants concerning these exceedances. On March 3, 2008, based on these purported violations, Plaintiffs commenced this citizen-enforcement action. After the district court dismissed certain elements of Plaintiffs' initial complaint because notice of the Permit violations was defective, Plaintiffs sent Defendants an adequate notice letter on July 3, 2008.

Plaintiffs filed the First Amended Complaint (Complaint) on September 18, 2008. In the Complaint, Plaintiffs assert six causes of action under the Clean Water Act. Only the first four of Plaintiffs' claims, which relate to the exceedances in the Watershed Rivers, and which the district court designated the "Watershed Claims," are before us. The first three Watershed Claims allege that, beginning in 2002 or 2003, the District and the County caused or contributed to exceedances of water-quality standards in the Santa Clara River (Claim 1), the Los Angeles River (Claim 2), and the San Gabriel River (Claim 3), in violation of 33 U.S.C. §§ 1311(a), 1342(p). The fourth Watershed Claim alleges that, beginning in 2002, Defendants caused or contributed to exceedances of the water quality standards and violated the Total Maximum Daily Load (TMDL) limits in Malibu Creek. Plaintiffs' four Watershed Claims each rest on the same premise: (1) the Permit sets water-quality limits for each of the four rivers; (2) the mass-emissions stations have recorded exceedances of those standards; (3) an exceedance is non-compliance with the Permit and, thereby, the Clean Water Act; and (4) Defendants, as holders of the Permit and operators of the MS4, are liable under the Act.

Before the district court, Plaintiffs moved for partial summary judgment on two of the Watershed Claims: the Los Angeles River and San Gabriel River exceedances. Defendants cross-moved for summary judgment on all four Watershed Claims.

In a March 2, 2010 Order, the district court denied each cross-motion for summary judgment on the Watershed Claims. *NRDC v. County of Los Angeles*, No. 08 Civ. 1467 (AHM), 2010 WL 761287 (C.D. Cal. Mar. 2, 2010), *amended on other grounds*, 2011 WL 666875 (C.D. Cal. Jan. 27, 2011). Although the district court accepted Plaintiffs' arguments that the Permit "clearly prohibits 'discharges from the MS4 that cause or contribute to the violation of Water Quality Standards or water quality objectives,' " 2010 WL 761287, at *6,

and that mass-monitoring stations “are the proper monitoring locations to determine if the MS4 is contributing to exceedances [of the Water Quality Standards or water quality objectives,]” *id.*, the district court held that Plaintiffs were attempting to establish liability without presenting evidence of who was responsible for the stormwater discharge. The district court observed that although “the District is responsible for the pollutants in the MS4” at the time they pass the mass-emissions stations, “that does not necessarily determine the question of whether the water passing by these points is a ‘discharge’ within the meaning of the Permit and the Clean Water Act.” *Id.* at *7. Unable to decipher from the record where the MS4 ended and the Watershed Rivers begin, or whether any upstream outflows were contributing stormwater to the MS4, the district court stated that “Plaintiffs would need to present some evidence (monitoring data or an admission) that some amount of a standards-exceeding pollutant is being discharged though at least one District outlet.” *Id.* at *8.

Following supplemental briefing, the district court again determined that “Plaintiffs failed to present evidence that the standards-exceeding pollutants passed through the Defendants’ MS4 *outflows* at or near the time the exceedances were observed. Nor did Plaintiffs provide any evidence that the mass emissions stations themselves are located at or near a Defendant’s outflow.” The district court thereupon entered summary judgment for Defendants on all four Watershed Claims.

Under Fed. R. Civ. P. 54(b), the district court entered a partial final judgment on the Watershed Claims because they were “factually and legally severable” from the other claims and “[t]he parties and the Court would benefit from appellate resolution of the central legal question underlying the watershed claims: what level of proof is necessary to establish defendants’ liability.” Plaintiffs timely appeal.

JURISDICTION AND STANDARD OF REVIEW

We have jurisdiction under 28 U.S.C. § 1291.

We review the district court's grant of summary judgment in a Clean Water Act enforcement action de novo. *Assoc. to Protect Hammersley, Eld, and Totten Inlets v. Taylor Res., Inc.*, 299 F.3d 1007, 1009 (9th Cir. 2002) (citing *Waste Action Project v. Dawn Mining Corp.*, 137 F.3d 1426, 1428 (9th Cir. 1998)).

DISCUSSION

Determining whether the County or the District violated the Permit's conditions, and thereby the Clean Water Act, requires us to examine whether an exceedance at a mass-emission monitoring station is a Permit violation, and, if so, whether it is beyond dispute that Defendants discharged pollutants that caused or contributed to water-quality exceedances.

I. Whether Exceedances at Mass-Emission Stations Constitute Permit Violations

[1] "The Clean Water Act regulates the discharge of pollutants into navigable waters, prohibiting their discharge unless certain statutory exceptions apply." *Russian River Watershed Protection Comm. v. City of Santa Rosa*, 142 F.3d 1136, 1138 (9th Cir. 1998) (citing 33 U.S.C. § 1311(a)). One such exception is for discharges by entities or individuals who hold NPDES permits. *Id.* The NPDES permitting program is the "centerpiece" of the Clean Water Act and the primary method for enforcing the effluent and water-quality standards established by the EPA and state governments. *Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 990 (D.C. Cir. 1997); *see also Nw. Env'tl. Advocates v. City of Portland*, 56 F.3d 979, 986-90 (9th Cir. 1995) ("Citizen suits to enforce water quality standards effectuate complementary provisions of the CWA and the

underlying purpose of the statute as a whole.”); *Friends of the Everglades v. S. Fla. Water Mgmt. Dist.*, 570 F.3d 1210, 1225 (11th Cir. 2009) (citing *Nat’l Wildlife Fed’n v. Gorsuch*, 693 F.2d 156,175-76 (D.C. Cir. 1982) (“There is indeed some basis in the legislative history for the position that Congress viewed the NPDES program as its most effective weapon against pollution.”)).

To decipher the meaning and enforceability of NPDES permit terms, we interpret the unambiguous language contained in the permit. *Russian River*, 142 F.3d at 1141. We review a permit’s provisions and meaning as we would any contract or legal document. *See Nw. Env’tl. Advocates*, 56 F.3d at 982. As described *supra*, the Permit prohibits MS4 discharges into receiving waters that exceed the Water Quality Standards established in the Basin Plan and elsewhere. Specifically, Section 2.1 provides: “[D]ischarges from the MS4 that cause or contribute to the violation of Water Quality Standards or water quality objectives are prohibited.” Section 2.2 of the Permit reads: “Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible for, shall not cause or contribute to a condition of nuisance.”

Nevertheless, Defendants contend that exceedances observed at mass-emissions stations cannot establish liability on behalf of any individual Permittee. Their argument in this respect, as we discuss more thoroughly *infra*, relies heavily on their belief that the record is bereft of evidence connecting Defendants to the water-quality exceedances. Defendants also assert that the mass-emissions stations are “neither designed nor intended” to measure the compliance of any Permittee and, therefore, cannot form the basis for a Permit violation. Defendants also argue that municipal compliance with an NPDES stormwater permit cannot be reviewed under the same regulatory framework as a private entity or an individual. In support of this contention, Defendants cite to a 1990 EPA rule:

When enacting this provision, Congress was aware of the difficulties in regulating discharges from municipal separate storm sewers solely through traditional end-of-pipe treatment and intended for EPA and NPDES States to develop permit requirements that were much broader in nature than requirements which are traditionally found in NPDES permits for industrial process discharges or POTWs. The legislative history indicates, municipal storm sewer system “permits will not necessarily be like industrial discharge permits.” Often, an end-of-the-pipe treatment technology is not appropriate for this type of discharge.

Brief of Appellees 33 (quoting “National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges,” 55 Fed. Reg. 47,990, 48,037-38 (Nov. 16, 1990)).

As we detail *infra*, neither the statutory development of the Clean Water Act nor the plain language of EPA regulations supports Defendants’ arguments that NPDES permit violations are less enforceable or unenforceable in the municipal-stormwater context. In fact, since the inception of the NPDES, Congress has expanded NPDES permitting to bring municipal dischargers within the Clean Water Act’s coverage.

A. Regulating MS4 Operators

The NPDES permitting program originated in the 1972 amendments to the Clean Water Act. Pub. L. 92-500, § 2, 86 Stat. 88, *reprinted in* 1972 U.S.C.C.A.N. 3668 (codified as amended at 33 U.S.C. § 1342). At the time, the NPDES program was viewed “as the primary means of enforcing the Act’s effluent limitations.” *Natural Res. Def. Council v. Costle*, 568 F.2d 1369, 1371 (D.C. Cir. 1977); *see also Natural Res. Def. Council, Inc. v. EPA*, 966 F.2d 1292, 1295 (9th Cir. 1992) (examining statutory history of 1972 amendments

to the Clean Water Act) (hereafter *NRDC v. EPA*). The permitting program is codified at Section 402 of the Clean Water Act. 33 U.S.C. § 1342. In 1973, the EPA promulgated regulations categorically exempting “discharges from a number of classes of point sources . . . including . . . separate storm sewers containing only storm runoff uncontaminated by any industrial or commercial activity.” *Costle*, 568 F.2d at 1372 (citing 40 C.F.R. § 125.4 (1975)). The EPA’s exemption of certain point sources, including ms4s, from Section 402’s blanket requirement was invalidated by the United States Court of Appeals for the District of Columbia Circuit in *Costle*. *Id.* at 1376-77. The *Costle* court highlighted that “[t]he wording of the [CWA], legislative history, and precedents are clear: the EPA Administrator does not have authority to exempt categories of point sources from the permit requirements of § 402.” *Id.* at 1377.

In the ten-year period following the *Costle* decision, the EPA did not promulgate regulations addressing discharges by ms4 operators. *See NRDC v. EPA*, 966 F.2d at 1296 (citing “National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Application Deadlines,” 56 Fed. Reg. 56,548 (1991)). In 1987, after continued nonfeasance by the EPA, Congress enacted the Water Quality Act amendments to the Clean Water Act to regulate stormwater discharges from, *inter alia*, ms4s. *See Defenders of Wildlife*, 191 F.3d at 1163 (“Ultimately, in 1987, Congress enacted the Water Quality Act amendments to the CWA.”); *NRDC v. EPA*, 966 F.2d at 1296 (“Recognizing both the environmental threat posed by storm water runoff and EPA’s problems in implementing regulations, Congress passed the Water Quality Act of 1987[.]”) (internal citations omitted); *see also* 55 Fed. Reg. 47,994 (“[P]ermits for discharges from municipal separate storm sewer systems must require controls to reduce the discharge of pollutants to the maximum extent practicable, and where necessary water quality-based controls, and must include a requirement to effectively prohibit non-storm water discharges into the storm

sewers. Furthermore, EPA in consultation with State and local officials must develop a comprehensive program to designate and regulate other storm water discharges to protect water quality.”).

[2] The principal effect of the 1987 amendments was to expand the coverage of Section 402’s permitting requirements. *NRDC v. EPA*, 966 F.2d at 1296. Section 402(p) established a “phased and tiered approach” for NPDES permitting. *Nw. Envtl. Def. Ctr. v. Brown*, 640 F.3d 1063, 1081-82 (9th Cir. 2011) (citing 33 U.S. § 1342(p)). “The purpose of this approach was to allow EPA and the states to focus their attention on the most serious problems first.” *NRDC v. EPA*, 966 F.2d at 1296. “Phase I” included “five categories of stormwater discharges,” deemed “the most significant sources of stormwater pollution,” who were required to obtain an NPDES permit for their stormwater discharge by 1990. *Brown*, 640 F.3d at 1082 (citing 33 U.S. § 1342(p)(2)). The five categories of the most serious discharge were:

(p) Municipal and industrial stormwater discharges

...

(2) ...

...

(A) A discharge with respect to which a permit has been issued under this section before February 4, 1987.

(B) A discharge associated with industrial activity.

(C) *A discharge from a municipal separate storm sewer system serving a population of 250,000 or more.*

(D) *A discharge from a municipal separate storm sewer system serving a population of 100,000 or more but less than 250,000.*

(E) A discharge for which the Administrator or the State, as the case may be, determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

33 U.S.C. § 1342(p)(2) (emphases added). Of the five categories of Phase I dischargers required to obtain the first permits, two are MS4 operators: municipalities with populations over 250,000, and municipalities with populations between 100,000 and 250,000. *Id.* § 1342(p)(2)(C)-(D). Indeed, as noted *supra*, the Permit at issue here was first authorized in 1990 pursuant to the 1987 amendments.

Rather than regulate individual sources of runoff, such as churches, schools and residential property (which one Congressman described as a potential “nightmare”),⁶ and as regulations prior to 1987 theoretically required, Congress put the NPDES permitting requirement at the municipal level to ease the burden of administering the program. *Brown*, 640 F.3d at 1085-86. That assumption of municipal control is found in the Permit at issue here—Part 3.G.2 of the Permit states that “Permittees shall possess adequate legal authority to . . . [r]equire persons within their jurisdiction to comply with conditions in Permittee’s ordinances, permits, contracts, model programs, or orders (i.e. hold dischargers to its MS4 accountable for their contributions of pollutants and flows).[.]”

⁶*See* 131 Cong. Rec. 15616, 15657 (Jun. 13, 1985) (Statement of Sen. Wallop) (“[The regulations] can be interpreted to require everyone who has a device to divert, gather, or collect stormwater runoff and snowmelt to get a permit from EPA as a point source. . . . Requiring a permit for these kinds of stormwater runoff conveyance systems would be an administrative nightmare.”).

[3] Defendants' position that they are subject to a less rigorous or unenforceable regulatory scheme for their stormwater discharges cannot be reconciled with the significant legislative history showing Congress's intent to bring ms4 operators under the NPDES-permitting system. Even the selectively excerpted regulatory language Defendants present to us—"Congress was aware of the difficulties in regulating discharges from municipal separate storm sewers . . . [and] intended for EPA and NPDES States to develop permit requirements that were much broader in nature than requirements which are traditionally found in NPDES permits"—does not support Defendants' view. Indeed, this excerpt is but one paragraph from a longer section titled, "Site-Specific Storm Water Quality Management Programs for Municipal Systems." 55 Fed. Reg. 48,037-38. The quoted language follows a paragraph which reads:

Section 402(p)(3)(iii) of the CWA *mandates* that permits for discharges from municipal separate storm sewers *shall require controls to reduce the discharge of pollutants* to the maximum extent practicable (MEP), including management practices, control techniques and systems, design and engineering methods, and such other provisions as the Director determines appropriate for the control of such pollutants.

55 Fed. Reg. 48,038 (emphasis added). The use of such language—employing “mandates” and commands to regulate—hardly supports Defendants' notion that NPDES permits are unenforceable against municipalities for their stormwater discharges. Moreover, the paragraphs that follow the excerpt explain why developing system-wide controls to manage municipal stormwater is preferable to controlling pollution through end-of-pipe effluent technologies. *Id.* The regulations highlight that “Congress recognized that permit requirements for municipal separate storm sewer systems should be developed in a flexible manner to allow site-specific permit condi-

tions to reflect the wide range of impacts that can be associated with these discharges.” *Id.* Rather than evincing any intent to treat permitting “differently” for municipalities, the EPA merely explains why state authorities that issue permits should draft site-specific rules, as the Regional Board did here, and why water-quality standards may be preferable over more-difficult-to-enforce effluent limitations. Avoiding wooden permitting requirements and granting states flexibility in setting forth requirements is not equivalent to immunizing municipalities for stormwater discharges that violate the provisions of a permit.

B. Enforcement of Mass-Emissions Violations

Part and parcel with Defendants’ argument that they are subject to a relaxed regulatory structure is their view that the Permit’s language indicates that mass-emissions monitoring is not intended to be enforcement mechanism against municipal dischargers. Defendants claim that measuring water-quality serves only an hortatory purpose—as Defendants state, “the mass emission monitoring program . . . neither measures nor was designed to measure any individual permittee’s compliance with the Permit.” This proposition, which if accepted would emasculate the Permit, is unsupported by either our case law or the plain language of the Permit conditions.

[4] “The plain language of CWA § 505 authorizes citizens to enforce *all* permit conditions.” *Nw. Env’tl. Advocates*, 56 F.3d at 986 (emphasis in original). We used these words and emphasized *all* permit conditions because the language of the Clean Water Act is clear in its intent to guard against all sources and superintendents of water pollution and “clearly contemplates citizen suits to enforce ‘a permit or condition thereof.’ ” *Id.* (citing 33 U.S.C. § 1365(f)(2), (f)(6)); *see also W. Va. Highlands Conservancy, Inc. v. Huffman*, 625 F.3d 159, 167 (4th Cir. 2010) (“In other words, the statute takes the water’s point of view: water is indifferent about who initially polluted it so long as pollution continues to occur.”).

We have previously addressed, and rejected, municipal attempts to avoid NPDES permit enforcement. In *Northwest Environmental Advocates*, we considered a citizen-suit challenging the City of Portland's operation of a combined sewer system which periodically overflowed and discharged raw sewage into two rivers. 56 F.3d at 981-82. The plaintiffs brought suit on the basis of an NPDES permit condition which "prohibit[ed] any discharges that would violate Oregon water quality standards." *Id.* at 985. Reviewing the history of the 1972 amendments and the Supreme Court's decision in *PUD No.1 of Jefferson County v. Washington Department of Ecology*, 511 U.S. 700 (1994), we recognized that Congress had authorized enforcement of state water-quality standards, lest municipalities be immunized on the technicality that not all water standards can be expressed as effluent limitations. *Id.* at 988-89. The overflows from the Portland sewer system were "caused primarily by uncontrollable events—*i.e.*, the amount of stormwater entering the system[.]" *Id.* at 989. Because the total amount of water entering and leaving the sewer system was unknown, it was impossible to articulate effluent standards which would "ensure that the gross amount of pollution discharged [would] not violate water quality standards." *Id.* Only by enforcing the water-quality standards themselves as the limits could the purpose of the CWA and the NPDES system be effectuated. *Id.* at 988-90. Indeed, we noted that prior to the 1972 incorporation of effluent limitations, the Clean Water Act depended entirely on enforcement based on water-quality standards. *Id.* at 986. However, troubled by the "'almost total lack of enforcement'" under the old system, Congress added the effluent limitation standards "not to supplant the old system" but to "improve enforcement." *Id.* at 986 (quoting S. Rep. No. 414, 92d Cong., 2d Sess. 2 (1972), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3671).

Our prior case law emphasizes that NPDES permit enforcement is not scattershot—each permit term is simply enforced as written. *See Union Oil*, 813 F.2d at 1491 ("It is unclear whether the court intended to excuse these violations under

the upset defense or under a de minimis theory. In either event, the district court erred. The Clean Water Act and the regulations promulgated under it make no provision for ‘rare’ violations.”); *see also United States v. CPS Chem. Co.*, 779 F. Supp. 437, 442 (D. Ark. 1991) (“For enforcement purposes, a permittee’s [Discharge Monitoring Reports] constitute admissions regarding the levels of effluents that the permittee has discharged.”). As we explained in *Union Oil*, Congress structured the CWA to function by self-monitoring and self-reporting of violations to “ ‘avoid the necessity of lengthy fact finding, investigations, and negotiations at the time of enforcement.’ ” 813 F.2d at 1492 (quoting S. Rep. No. 414, 92d Cong., 1st Sess. 64, *reprinted in* 1972 U.S.C.C.A.N. 3668, 3730). When self-reported exceedances of an NPDES permit occur, the Clean Water Act allows citizens to bring suit to enforce the terms of the Permit.

[5] The plain language of the Permit countenances enforcement of the water-quality standards when exceedances are detected by the various compliance mechanisms, including mass-emissions monitoring. First, the Permit incorporates and adopts the Basin Plan, which sets the water-quality standards for bacteria and contaminants for the receiving waters of Southern California, including the Watershed Rivers. The Permit then sets out a multi-part monitoring program for those standards, the goals of which explicitly include “[a]ssessing compliance with this Order[.]” “Compliance” under the Clean Water Act primarily means adhering to the terms and conditions of an NPDES permit. *EPA v. Calif.*, 426 U.S. at 223 (“Thus, the principal means of enforcing the pollution control and abatement provisions of the Amendments is to enforce compliance with a permit.”). The first monitoring program listed in the Permit is “Mass Emissions.” While Defendants are correct to note that mass-emissions monitoring has as one of its goals “estimat[ing] the mass emissions from the MS4,” Defendants fail to mention that another goal, listed just below “estimating,” is “[d]etermin[ing] if the MS4 is contributing to exceedances of Water Quality Standards.”

Although Defendants argue that compliance with other Permit provisions, in particular Part 2.3's iterative process, forgives violations of the discharge prohibitions in Parts 2.1 and 2.2, no such "safe harbor" is present in this Permit.⁷ Rather, Part 2.3 first provides that Permittees shall comply with the Water Quality Standards "through timely implementation of control measures and other actions. . . in accordance with the SQMP and its components." Part 2.3 clarifies that Parts 2 and 3 of the Permit interact, but it offers no textual support for the proposition that compliance with certain provisions shall forgive non-compliance with the discharge prohibitions. As opposed to absolving noncompliance or exclusively adopting the MEP standard, the iterative process ensures that if water quality exceedances "persist," despite prior abatement efforts, a process will commence whereby a responsible Permittee amends its SQMP. Given that Part 3 of the Permit states that SQMP implementation is the "minimum" required of each Permittee, the discharge prohibitions serve as additional requirements that operate as enforceable water-quality-based performance standards required by the Regional Board. *See e.g., Bldg. Indus. Ass'n of San Diego Cnty. v. State Water Res. Control Bd.*, 22 Cal. Rptr. 3d 128, 141 (Cal. Ct. App. 2004) (rejecting arguments that "under federal law the 'maximum extent practicable' standard is the 'exclusive' measure that may be applied to municipal storm sewer discharges and [that] a regulatory agency may not require a Municipality to comply with a state water quality standard if the required controls exceed a 'maximum extent practicable' standard").

⁷We also note, as did the district court, that when the validity of this Permit was challenged in California state court by various municipal entities, including the District, the argument that the Permit's discharge prohibitions were invalid for not containing a "safe harbor" was rejected. *See In re L.A. Cnty. Mun. Storm Water Permit Litig.*, No. BS 080548, at 4-5, 7 (L.A. Super. Ct. Mar. 24, 2005) ("In sum, the Regional Board acted within its authority when it included Parts 2.1 and 2.2. in the Permit without a 'safe harbor,' whether or not compliance therewith requires efforts that exceed the 'MEP' standard.").

Part 6.D of the Permit, titled “Duty to Comply,” lays any doubts about municipal compliance to rest: “Each Permittee must comply with all terms, requirements, and conditions of this Order. Any violation of this order constitutes a violation of the Clean Water Act . . . and is grounds for enforcement action, Order termination, Order revocation and reissuance, denial of an application for reissuance; or a combination thereof[.]” This unequivocal language is unsurprising given that all NPDES permits must include monitoring provisions ensuring that permit conditions are satisfied. *See* 33 U.S.C. § 1318(a)(A) (“[T]he Administrator [of the EPA] shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), [and] (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such manner as the Administrator shall prescribe)[.]”); 40 C.F.R. § 122.44(i)(1) (specifying the monitoring requirements for compliance, “mass . . . for each pollutant limited in the permit,” and volume of effluent discharged); *Ackels v. EPA*, 7 F.3d 862, 866 (9th Cir. 1993) (“[T]he Act grants EPA broad authority to require NPDES permittees to monitor, at such intervals as the Administrator shall prescribe, whenever it is required to carry out the objectives of the Act.”).

[6] In sum, the Permit’s provisions plainly specify that the mass-emissions monitoring is intended to measure compliance and that “[a]ny violation of this Order” is a Clean Water Act violation. The Permit is available for public inspection to aid this purpose. Accordingly, we agree with the district court’s determination that an exceedance detected through mass-emissions monitoring is a Permit violation that gives rise to liability for contributing dischargers.

II. Evidence of Discharge

We next turn to the factual issue on which the district court granted summary judgement in favor of Defendants—whether

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any evidence in the record shows Defendants discharged stormwater that caused or contributed to water-quality violations. The district court determined that a factual basis was lacking:

Plaintiffs failed to present evidence that the standards-exceeding pollutants passed through the Defendants' MS4 *outflows* at or near the time the exceedances were observed. Nor did Plaintiffs provide any evidence that the mass emissions stations themselves are located at or near a Defendant's outflow. Plaintiffs do represent in their supplemental briefing that their monitoring data reflects sampling conducted at or near Defendants' outflows. . . . However, the declarations on which Plaintiffs rely do *not* clearly indicate that the sampling in question was conducted at an outflow (as opposed to in-stream).

. . .

In short, Plaintiffs have failed to follow the Court's instructions and present data which could establish that "standards-exceeding pollutants . . . passed through Defendants' MS4 *outflows* at or near the time the exceedances were observed." That the pollutants must have passed through an outflow is key because, as the Court found in the March 2 Order, standards-exceeding pollutants must have passed through a County or District outflow in order to constitute a discharge under the Clean Water Act and the Permit.

[7] Plaintiffs have argued throughout this litigation that the measured exceedances in the Watershed Rivers *ipso facto* establish Permit violations by Defendants. Because these points are designated in the Permit for purposes of assessing "compliance," this argument is facially appealing. But the Clean Water Act does not prohibit "undisputed" exceedances;

it prohibits “discharges” that are *not* in compliance with the Act, which means in compliance with the NPDES. *See* 33 U.S.C. § 1311(a); *see also Miccosukee Tribe*, 541 U.S. at 102. While it may be undisputed that exceedances have been detected, responsibility for those exceedances requires proof that some entity discharged a pollutant. Indeed, the Permit specifically states that “*discharges* from the MS4 that cause or contribute to the violation of the Water Quality Standards or water quality objectives *are prohibited*.”

“[D]ischarge of pollutant” is defined as “any addition of any pollutant to navigable waters from any point source[.]” 33 U.S.C. § 1362(12). Under the Clean Water Act, the MS4 is a “Point Source.” *See* 33 U.S.C. § 1342(p)(2), 1362(14). “Navigable waters” is used interchangeably with “waters of the United States.” *See Headwaters, Inc. v. Talent Irrigation Dist.*, 243 F.3d 526, 532 (9th Cir. 2001). Those terms mean, *inter alia*, “[a]ll waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide[.]” 40 C.F.R. § 122.2. The Watershed Rivers are all navigable waters.

Thus, the primary factual dispute between the parties is whether the evidence shows any *addition* of pollutants by Defendants to the Watershed Rivers. Defendants contend that the “District does not generate any of the pollutants in the system, but only transports them from other permitted and non-permitted sources.” Moreover, Defendants contend that by measuring mass-emissions downstream from where the pollutants entered the sewer system, it is not possible to pinpoint which entity, if any, is responsible for adding them to the rivers. In the words of the district court, there is no evidence that “standards-exceeding pollutants . . . passed through Defendants’ MS4 *outflows* at or near the time the exceedances were observed.” Plaintiffs counter that the Monitoring Stations are downstream from hundreds of miles of storm drains which have generated the pollutants being detected. To Plaintiffs, it

is irrelevant which of the thousands of storm drains were the source of polluted stormwater—as holders of the Permit, Defendants bear responsibility for the detected exceedances.

Resolving this dispute over whether Defendants added pollutants depends heavily on the level of generality at which the facts are viewed. At the broadest level, all sides agree with basic hydrology—upland water becomes polluted as it runs over urbanized land and begins a downhill flow, first through municipal storm drains, then into the MS4 which carries the water (and everything in it) to the Watershed Rivers, which flow into the Pacific Ocean. More narrowly, it is, as Plaintiffs concede, impossible to identify the particular storm drains that had, for instance, some fecal bacteria which contributed to a water-quality violation. Ultimately, each side fails to rebut the other's arguments. Defendants ignore their role as controllers of thousands of miles of MS4 and the stormwater it conveys⁸ by demanding that Plaintiffs engage in the Sisyphean task of testing particular storm drains in the County for the source of each pollutant. Likewise, Plaintiffs did not enlighten the district court with sufficient evidence for certain claims and assumed it was obvious to anyone how stormwater makes its way from a parking lot in Pasadena into the MS4, through a mass-emissions station, and then to a Watershed River.

[8] Despite shortcomings in each side's arguments, there is evidence in the record showing that polluted stormwater from the MS4 was added to two of the Watershed Rivers: the Los

⁸Defendants' untenable position about their responsibility for discharges is confirmed by the testimony of their Rule 30(b)(6) witness:

Question: What if those flows [which exceeded water-quality standards] were so polluted with oil and grease that they were on fire as they came out of the system? Would your view be the same, that the District is not contributing to exceedances?

Answer: That the system the District maintains is not contributing to, yes.

Angeles River and San Gabriel River. Because the mass-emissions stations, as the appropriate locations to measure compliance, for these two rivers are located in a section of the MS4 owned and operated by the District, when pollutants were detected, they had not yet exited the point source into navigable waters. As such, there is no question over who controlled the polluted stormwater at the time it was measured or who caused or contributed to the exceedances when that water was again discharged to the rivers—in both cases, the District. As a matter of law and fact, the MS4 is distinct from the two navigable rivers; the MS4 is an intra-state man-made construction—not a naturally occurring Watershed River. *See Headwaters*, 243 F.3d at 533 (“The EPA has interpreted ‘waters of the United States’ to include ‘intrastate lakes, rivers, streams (including intermittent streams) . . . the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce’ and ‘tributaries of [those] waters.’ ” (quoting 40 C.F.R. § 122.2(c), (e))). At least some outfalls for the MS4 were downstream from the mass-emissions stations. *See* 40 C.F.R. § 122.26(9) (“Outfall means a point source . . . at the point where a municipal separate storm sewer discharges to waters of the United States . . .”). The discharge from a point source occurred when the still-polluted stormwater flowed out of the concrete channels where the Monitoring Stations are located, through an outfall, and into the navigable waterways. We agree with Plaintiffs that the precise location of each outfall is ultimately irrelevant because there is no dispute that MS4 eventually adds stormwater to the Los Angeles and San Gabriel Rivers downstream from the Monitoring Stations.

Although the District argues that merely channeling pollutants created by other municipalities or industrial NPDES permittees should not create liability because the District is not an instrument of “addition” or “generation,”⁹ the Clean Water

⁹This issue does not usually arise in Clean Water Act litigation because it is generally assumed that ms4s “discharge” stormwater. *See, e.g., Miss.*

Act does not distinguish between those who add and those who convey what is added by others—the Act is indifferent to the originator of water pollution. As Judge Wilkinson of the Fourth Circuit cogently framed it: “[The Act] bans ‘the discharge of any pollutant by any person’ regardless of whether that ‘person’ was the root cause or merely *the current superintendent of the discharge.*” *Huffman*, 625 F.3d at 167 (emphasis added). “Point sources” include instruments that channel water, such as “any pipe, ditch, *channel*, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14) (emphasis added). The EPA’s regulations further specify that ms4 operators require permits for channeling: “Discharge of a pollutant . . . includes additions of pollutants into waters of the United States from: surface runoff which is collected or *channelled* by man; discharges through pipes, sewers, or other conveyances owned by a State [or] municipality.” 40 C.F.R. § 122.2 (emphasis added). “[M]ost urban runoff is discharged through conveyances such as separate storm sewers or other conveyances which are point sources under the CWA. These discharges are subject to the NPDES program.” 55 Fed. Reg. 47,991. Finally, the Supreme Court stated in *Miccossukee Tribe* that “the definition of ‘discharge of a pollutant’ contained in § 1362(12) . . . *includes* within its reach point sources that do not themselves generate pollutants.” 541 U.S. at 105 (emphasis added).

[9] Accordingly, the district court erred in stating that “Plaintiffs have not provided the Court with the necessary evidence to establish that the Los Angeles River and the San Gabriel River below the mass emissions monitoring stations

River Revival v. Adm’r, E.P.A., 107 F. Supp. 2d 1008, 1009 (D. Minn. 2000) (“These lawsuits involve the discharge of storm water into the Mississippi River through the Cities’ storm sewers. Thus, and this is not in dispute, the storm water discharge is subject to the NPDES permitting requirements.”).

are bodies of water that are distinct from the MS4 above these monitoring stations.” In light of the evidence that the Los Angeles River and San Gabriel River mass-emission stations are in concrete portions of the MS4 controlled by the District, it is beyond dispute that the District is discharging pollutants from the MS4 to the Los Angeles River and San Gabriel River in violation of the Permit. Thus, Plaintiffs are entitled to summary judgment on Claims 2 and 3.

[10] However, we agree with the district court that, as the record is currently constituted, it is not possible to mete out responsibility for exceedances detected in the Santa Clara River and Malibu Creek (Claims 1 and 4). Like the district court, we are unable to identify the relationship between the MS4 and these mass-emissions stations. From the record, it appears that both monitoring stations are located within the rivers themselves. Plaintiffs have not endeavored to provide the Court with a map or cogent explanation of the inter-workings or connections of this complicated drainage system. We recognize that both the Santa Clara and Malibu Creek Monitoring Stations are downstream from hundreds or thousands of storm drains and MS4 channels. It is highly likely, but on this record nothing more than assumption, that polluted stormwater exits the MS4 controlled by the District and the County, and flows downstream in these rivers past the mass-emissions stations. To establish a violation, Plaintiffs were obligated to spell out this process for the district court’s consideration and to spotlight how the flow of water from an ms4 “contributed” to a water-quality exceedance detected at the Monitoring Stations. *See, e.g., Nicholas Acoustics & Specialty Co. v. H & M Constr. Co.*, 695 F.2d 839, 846-47 (5th Cir. 1983) (“We wish to emphasize most strongly that it is foolhardy for counsel to rely on a court to find disputed issues of material fact not highlighted by counsel’s paperwork; a party that has suffered the consequences of summary judgment below has a definite and specific duty to point out the thwarting facts Judges are not ferrets!”). Contrary to Plaintiffs’ contention, this would not require independent sampling of

the District's outfalls. Indeed, simply ruling out the other contributors of stormwater to these two rivers or following up to vague answers given by Defendants' witnesses could have satisfied Plaintiffs' evidentiary obligation. In the alternative, prior to commencing actions such as this one, Plaintiffs could heed the district court's sensible observation and, for purposes of their evidentiary burden, "sample from *at least one* outflow that included a standards-exceeding pollutant[.]"

Finally, for all four Watershed Rivers, the record is silent regarding the path stormwater takes from the unincorporated land controlled by the County to the Monitoring Stations. The district court correctly demanded evidence for the County's liability, which Plaintiffs did not proffer.

[11] In sum, Plaintiffs were entitled to summary judgment on Claims 2 and 3 against the District for the Los Angeles River and San Gabriel River because (1) the Monitoring Stations for these two rivers are located in a portion of the MS4 owned and operated by the District, (2) these Monitoring Stations detected pollutants in excess of the amount authorized by the NPDES permit, and (3) this polluted water "discharged" into the Los Angeles River and San Gabriel River. The Plaintiffs, however, have not met their burden on summary judgment for their other claims because they did not provide the district court with evidence that the MS4 controlled by the District "discharged" pollutants that passed through the Monitoring Stations in the Santa Clara River and Malibu Creek, or that ms4s controlled by the County "discharged" pollutants that passed through the Monitoring Stations in any of the four rivers in question.

CONCLUSION

The district court's judgment for Defendant District on Claims 2 and 3 of the First Amended Complaint is REVERSED, and this matter is REMANDED to the district court for further proceedings consistent with this opinion. The

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district court's grant of summary judgment for Defendant District on Claims 1 and 4 and for Defendant County on all Watershed Claims is AFFIRMED.

AFFIRMED IN PART, REVERSED IN PART, and REMANDED.

Each side shall bear its own costs.



DEFENDERS OF WILDLIFE and THE SIERRA CLUB, Petitioners, v. CAROL M. BROWNER, in her official capacity as Administrator of the United States Environmental Protection Agency, Respondent. CITY OF TEMPE, ARIZONA; CITY OF TUCSON, ARIZONA; CITY OF MESA, ARIZONA; PIMA COUNTY, ARIZONA; and CITY OF PHOENIX, ARIZONA, Intervenors-Respondents.

No. 98-71080

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

191 F.3d 1159; 1999 U.S. App. LEXIS 22212; 99 Cal. Daily Op. Service 7618; 99 Daily Journal DAR 9661; 30 ELR 20116

August 11, 1999, Argued and Submitted, San Francisco, California
September 15, 1999, Filed

SUBSEQUENT HISTORY: [**1] As Amended
December 7, 1999.

PRIOR HISTORY: Petition to Review a Decision
of the Environmental Protection Agency. EPA No. 97-3.

DISPOSITION: PETITION DENIED.

CASE SUMMARY:

PROCEDURAL POSTURE: Petitioners appealed decision of the Environmental Appeals Board denying reconsideration of the Environmental Protection Agency's decision issuing five municipalities National Pollution Discharge System permits, without requiring numeric limitations to ensure compliance with state water-quality standards.

OVERVIEW: The Environmental Protection Agency (EPA) issued permits to municipalities without requiring limitations on storm-sewer discharges. Petitioners alleged that the Water Quality Act (WQA), 33 U.S.C.S. § 1311(b)(1)(C), required municipalities to strictly comply with state water-quality standards. Court concluded that EPA's decision was not arbitrary or capricious. Court determined that WQA unambiguously expressed Congress' intent that municipal storm-sewer discharges did not have to strictly comply with WQA. Congress expressly put in provision for industrial storm-water discharges requiring compliance with WQA, but there was no similar provision in WQA for municipal storm-sewer

discharges. The plain language of WQA thus exempted municipal storm-sewer discharges from strict compliance. Court found other provisions in WQA excluded certain discharges from permit altogether. Based on that fact, court concluded exemption of municipal storm-sewer discharges from strict compliance with WQA was not so unusual that the court should not interpret the statute as written.

OUTCOME: Court denied petition for reconsideration, because Environmental Protection Agency did not act arbitrarily or capriciously in issuing permits. In examining Water Quality Act, court determined that it was Congress' specific intent to exempt municipal storm-sewer discharges from strict compliance with the statute.

LexisNexis(R) Headnotes

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Public Participation
[HN1] 26 U.S.C.S. § 1342(a)(1) authorizes the Environmental Protection Agency to issue National Pollution Discharge Elimination System permits, thereby allowing entities to discharge some pollutants.

Administrative Law > Judicial Review > Reviewability > Standing
Civil Procedure > Justiciability > General Overview

Environmental Law > Litigation & Administrative Proceedings > Judicial Review

[HN2] 33 U.S.C.S. § 1369(b)(1)(F) authorizes any interested person to seek review in court of an Environmental Protection Agency decision issuing or denying any permit under 26 U.S.C.S. § 1342(a)(1). Any interested person means any person that satisfies the injury-in-fact requirement for U.S. Const. art. III standing.

Environmental Law > Litigation & Administrative Proceedings > Nuisances, Trespasses & Strict Liability

[HN3] A plaintiff claiming injury from environmental damage must use the area affected by the challenged activity.

Administrative Law > Judicial Review > Standards of Review > Abuse of Discretion***Administrative Law > Judicial Review > Standards of Review > Arbitrary & Capricious Review******Environmental Law > Litigation & Administrative Proceedings > Judicial Review***

[HN4] The Administrative Procedures Act, 5 U.S.C.S. § 701, *et seq.*, provides the standard of review for the Environmental Protection Agency's decision to issue a permit. Under the Administrative Procedures Act, the court generally reviews such a decision to determine whether it was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.

Administrative Law > Agency Rulemaking > Rule Application & Interpretation > Validity***Administrative Law > Judicial Review > Standards of Review > General Overview******Governments > Legislation > Interpretation***

[HN5] The court has established a two-step process for reviewing an agency's construction of a statute it administers. Under the first step, the court employs traditional tools of statutory construction to determine whether Congress has expressed its intent unambiguously on the question before the court. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, instead, Congress has left a gap for the administrative agency to fill, the court proceeds to step two. At step two, the court must uphold the administrative regulation unless it is arbitrary, capricious, or manifestly contrary to the statute.

Environmental Law > Water Quality > Clean Water Act > Coverage & Definitions > Discharges***Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Effluent Limitations***

[HN6] The Clean Water Act, 33 U.S.C.S. § 1251, *et seq.*, generally prohibits the discharge of any pollutant from a point source into the navigable waters of the United States. An entity can, however, obtain a National Pollution Discharge Elimination System permit that allows for the discharge of some pollutants.

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Effluent Limitations***Environmental Law > Water Quality > Clean Water Act > Water Quality Standards***

[HN7] A National Pollution Discharge Elimination System permit imposes effluent limitations on discharges. First, a permit-holder shall achieve effluent limitations which shall require the application of the best practicable control technology currently available. Second, a permit-holder shall achieve any more stringent limitation, including those necessary to meet water quality standards, treatment standards or schedules of compliance, established pursuant to any state law or regulations.

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Storm Water Discharges

[HN8] See 33 U.S.C.S. § 1342(p)(3).

Governments > Legislation > Interpretation

[HN9] Questions of congressional intent that can be answered with traditional tools of statutory construction are still firmly within the province of the courts. Using traditional tools of statutory construction, when interpreting a statute, the court looks first to the words that Congress used. Rather than focusing just on the word or phrase at issue, the court looks to the entire statute to determine congressional intent.

Governments > Legislation > Interpretation

[HN10] Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Storm Water Discharges***Governments > Legislation > Interpretation***

[HN11] The court generally refuses to interpret a statute in a way that renders a provision superfluous.

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Effluent Limitations
Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Storm Water Discharges
Governments > Local Governments > Licenses

[HN12] The Water Quality Act contains other provisions that undeniably exempt certain discharges from the permit requirement altogether, and therefore from 33 U.S.C.S. § 1311. For example, the Administrator shall not require a permit under this section for discharges composed entirely of return flows from irrigated agriculture. 33 U.S.C.S. § 1342(l)(1). Similarly, a permit is not required for certain storm-water runoff from oil, gas, and mining operations. See 33 U.S.C.S. § 1342(l)(2).

Environmental Law > Water Quality > Clean Water Act > Discharge Permits > Storm Water Discharges

[HN13] Congress gave the administrator discretion to determine what controls are necessary. Under that discretionary provision, the Environmental Protection Agency (EPA) has the authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants. The EPA also has the authority to require less than strict compliance with state water-quality standards. The EPA has adopted an interim approach, which uses best management practices (BMPs) in first-round storm water permits to provide for the attainment of water quality standards.

COUNSEL: Jennifer Anderson and David Baron, Arizona Center for Law in the Public Interest, Phoenix, Arizona, for the petitioners.

Alan Greenberg, Attorney, U.S. Department of Justice, Environment & Natural Resources Division, Denver, Colorado, for the respondent.

Craig Reece, Phoenix City Attorney's Office, Phoenix, Arizona; Stephen J. Burg, Mesa City Attorney's Office, Mesa, Arizona; Timothy Harrison, Tucson City Attorney's Office, Tucson, Arizona; and Harlan C. Agnew, Deputy County Attorney, Tucson, Arizona, for the intervenors-respondents.

David Burchmore, Squire, Sanders & Dempsey, Cleveland, Ohio, for the amici curiae.

JUDGES: Before: John T. Noonan, David R. Thompson, and Susan P. Graber, Circuit Judges. Opinion by Judge Graber.

OPINION BY: SUSAN P. GRABER

OPINION

[*1161] AMENDED OPINION

GRABER, Circuit Judge:

Petitioners challenge the Environmental Protection Agency's (EPA) decision to issue National Pollution Discharge Elimination System (NPDES) permits to five municipalities, for their separate storm sewers, without requiring numeric limitations [**2] to ensure compliance with state water-quality standards. Petitioners sought administrative review of the decision within the EPA, which the Environmental Appeals Board (EAB) denied. This timely petition for review ensued. For the reasons that follow, we deny the petition.

FACTUAL AND PROCEDURAL BACKGROUND

Title [HN1] 26 U.S.C. § 1342(a)(1) authorizes the EPA to issue NPDES permits, thereby allowing entities to discharge some pollutants. In 1992 and 1993, the cities of Tempe, Tucson, Mesa, and Phoenix, Arizona, and Pima County, Arizona (Intervenors), submitted applications for NPDES permits. The EPA prepared draft permits for public comment; those draft permits did not attempt to ensure compliance with Arizona's water-quality standards.

Petitioner Defenders of Wildlife objected to the permits, arguing that they must contain numeric limitations to ensure strict compliance with state water-quality standards. The State of Arizona also objected.

Thereafter, the EPA added new requirements:

To ensure that the permittee's activities achieve timely compliance with applicable water quality standards (Arizona Administrative Code, Title 18, Chapter 11, Article 1), the [**3] permittee shall implement the [Storm Water Management Program], monitoring, reporting and other requirements of this permit in accordance with the time frames established in the [Storm Water Management Program] referenced in Part I.A.2, and elsewhere in the permit. This timely implementation of the requirements of this permit shall constitute a schedule of compliance authorized by Arizona Administrative Code, section R18-11-121(C).

The Storm Water Management Program included a number of structural environmental controls, such as storm-water detention basins, retention basins, and infil-

tration ponds. It also included programs to remove illegal discharges.

With the inclusion of those "best management practices," the EPA determined that the permits ensured compliance with state water-quality standards. The Arizona Department of Environmental Quality agreed:

The Department has reviewed the referenced municipal NPDES storm-water permit pursuant to Section 401 of the Federal Clean Water Act to ensure compliance with State water quality standards. We have determined that, based on the information provided in the permit, and the fact sheet, adherence to provisions and [**4] requirements set forth in the final municipal permit, will protect the water quality of the receiving water.

On February 14, 1997, the EPA issued final NPDES permits to Intervenor. Within 30 days of that decision, Petitioners requested an evidentiary hearing with the regional administrator. *See* 40 C.F.R. § 124.74. Although Petitioners requested a hearing, they conceded that they raised only a legal issue and that a hearing was, in fact, unnecessary. Specifically, Petitioners raised only the legal question whether the Clean Water Act (CWA) requires numeric limitations to ensure strict compliance with state water-quality standards; they did not raise the factual question whether the management practices that the EPA chose would be effective.

[*1162] On June 16, 1997, the regional administrator summarily denied Petitioners' request. Petitioners then filed a petition for review with the EAB. *See* 40 C.F.R. § 124.91(a). On May 21, 1998, the EAB denied the petition, holding that the permits need not contain numeric limitations to ensure strict compliance with state water-quality standards. Petitioners then moved for reconsideration, *see* 40 C.F.R. § 124.91(i), which the EAB denied.

[**5] JURISDICTION

[HN2] Title 33 U.S.C. § 1369(b)(1)(F) authorizes "any interested person" to seek review in this court of an EPA decision "issuing or denying any permit under section 1342 of this title." "Any interested person" means any person that satisfies the injury-in-fact requirement for Article III standing. *See Natural Resources Defense Council, Inc. v. EPA*, 966 F.2d 1292, 1297 (9th Cir. 1992) [NRDC II]. It is undisputed that Petitioners satisfy that requirement. Petitioners allege that "members of Defenders and the Club use and enjoy ecosystems affected by storm water discharges and sources thereof

governed by the above-referenced permits," and no other party disputes those facts. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 565-66, 119 L. Ed. 2d 351, 112 S. Ct. 2130 (1992) [HN3] ("[A] plaintiff claiming injury from environmental damage must use the area affected by the challenged activity."); *see also NRDC II*, 966 F.2d at 1297 ("NRDC claims, inter alia, that [the] EPA has delayed unlawfully promulgation of storm water regulations and that its regulations, as published, inadequately control storm water [**6] contaminants. NRDC's allegations . . . satisfy the broad standing requirement applicable here.").

Intervenors argue, however, that they were not parties when this action was filed and that this court cannot redress Petitioners' injury without them. Their real contention appears to be that they are indispensable parties under *Federal Rule of Civil Procedure 19*. We need not consider that contention, however, because in fact Intervenor has been permitted to intervene in this action and to present their position fully. In the circumstances, Intervenor has suffered no injury.

DISCUSSION

A. Standard of Review

[HN4] The Administrative Procedures Act (APA), 5 U.S.C. §§ 701-06, provides our standard of review for the EPA's decision to issue a permit. *See American Mining Congress v. EPA*, 965 F.2d 759, 763 (9th Cir. 1992). Under the APA, we generally review such a decision to determine whether it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A).

On questions of statutory interpretation, we follow the approach from *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 81 L. Ed. 2d 694, 104 S. Ct. 2778 (1984). [**7] *See NRDC II*, 966 F.2d at 1297 (so holding). In *Chevron*, 467 U.S. at 842-44, the Supreme Court devised a two-step process for reviewing an administrative agency's interpretation of a statute that it administers. *See also Bicycle Trails Council of Marin v. Babbitt*, 82 F.3d 1445, 1452 (9th Cir. 1996) ("The [HN5] Supreme Court has established a two-step process for reviewing an agency's construction of a statute it administers."). Under the first step, we employ "traditional tools of statutory construction" to determine whether Congress has expressed its intent unambiguously on the question before the court. *Chevron*, 467 U.S. at 843 n.9. "If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842-43 (footnote omitted). If, instead, Congress has left a gap for the administrative agency to fill, we proceed to step two. *See id.* at 843. At step two, we must uphold the administrative regulation

unless it is "arbitrary, capricious, or manifestly contrary to the statute." *Id.* at 844.

[**8] [*1163] B. *Background*

[HN6] The CWA generally prohibits the "discharge of any pollutant," 33 U.S.C. § 1311(a), from a "point source" into the navigable waters of the United States. *See* 33 U.S.C. § 1362(12)(A). An entity can, however, obtain an NPDES permit that allows for the discharge of some pollutants. *See* 33 U.S.C. § 1342(a)(1).

[HN7] Ordinarily, an NPDES permit imposes effluent limitations on such discharges. *See* 33 U.S.C. § 1342(a)(1) (incorporating effluent limitations found in 33 U.S.C. § 1311). First, a permit-holder "shall . . . achieve . . . effluent limitations . . . which shall require the application of the best practicable control technology [BPT] currently available." 33 U.S.C. § 1311(b)(1)(A). Second, a permit-holder "shall . . . achieve . . . any more stringent limitation, including those necessary to meet water quality standards, treatment standards or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title)." 33 U.S.C. § 1311 [**9] (b)(1)(C) (emphasis added). Thus, although the BPT requirement takes into account issues of practicability, *see Rybachek v. EPA*, 904 F.2d 1276, 1289 (9th Cir. 1990), the EPA also "is under a specific obligation to require that level of effluent control which is needed to implement existing water quality standards without regard to the limits of practicability," *Oklahoma v. EPA*, 908 F.2d 595, 613 (10th Cir. 1990) (internal quotation marks omitted), *rev'd on other grounds sub nom. Arkansas v. Oklahoma*, 503 U.S. 91, 117 L. Ed. 2d 239, 112 S. Ct. 1046 (1992). *See also Ackels v. EPA*, 7 F.3d 862, 865-66 (9th Cir. 1993) (similar).

The EPA's treatment of storm-water discharges has been the subject of much debate. Initially, the EPA determined that such discharges generally were exempt from the requirements of the CWA (at least when they were uncontaminated by any industrial or commercial activity). *See* 40 C.F.R. § 125.4 (1975).

The Court of Appeals for the District of Columbia, however, invalidated that regulation, holding that "the EPA Administrator does not have authority to exempt categories of point sources from [**10] the permit requirements of § 402 [33 U.S.C. § 1342]." *Natural Resources Defense Council, Inc. v. Costle*, 186 U.S. App. D.C. 147, 568 F.2d 1369, 1377 (D.C. Cir. 1977). "Following this decision, [the] EPA issued proposed and final rules covering storm water discharges in 1980, 1982, 1984, 1985 and 1988. These rules were challenged at the administrative level and in the courts." *American Mining Congress*, 965 F.2d at 763.

Ultimately, in 1987, Congress enacted the Water Quality Act amendments to the CWA. *See NRDC II*, 966 F.2d at 1296 ("Recognizing both the environmental threat posed by storm water runoff and [the] EPA's problems in implementing regulations, Congress passed the Water Quality Act of 1987 containing amendments to the CWA.") (footnotes omitted). Under the Water Quality Act, from 1987 until 1994, ' most entities discharging storm water did not need to obtain a permit. *See* 33 U.S.C. § 1342(p).

1 As enacted, the Water Quality Act extended the exemption to October 1, 1992. Congress later amended the Act to change that date to October 1, 1994. *See* Pub. L. No. 102-580.

[**11] Although the Water Quality Act generally did not require entities discharging storm water to obtain a permit, it did require such a permit for discharges "with respect to which a permit has been issued under this section before February 4, 1987," 33 U.S.C. § 1342(p)(2)(A); discharges "associated with industrial activity," 33 U.S.C. § 1342(p)(2)(B); discharges from a "municipal separate sewer system serving a population of [100,000] or more," 33 U.S.C. § 1342(p)(2)(C) & (D); and "[a] discharge for which the Administrator . . . determines that the stormwater discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States," 33 U.S.C. § 1342(p)(2)(E).

[*1164] When a permit is required for the discharge of storm water, the Water Quality Act sets two different standards:

(A) Industrial discharges

Permits for discharges associated with industrial activity shall meet all applicable provisions of this section *and* section 1311 of this title.

(B) Municipal discharge

Permits for discharges from municipal [**12] storm sewers -

(i) may be issued on a system- or jurisdiction-wide basis;

(ii) shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers; and

(iii) shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods,

and such other provisions as the Administrator . . . determines appropriate for the control of such pollutants.

[HN8] 33 U.S.C. § 1342(p)(3) (emphasis added).

C. Application of Chevron

The EPA and Petitioners argue that the Water Quality Act is ambiguous regarding whether Congress intended for municipalities to comply strictly with state water-quality standards, under 33 U.S.C. § 1311(b)(1)(C). Accordingly, they argue that we must proceed to step two of *Chevron* and defer to the EPA's interpretation that the statute does require strict compliance. See *Zimmerman v. Oregon Dep't of Justice*, 170 F.3d 1169, 1173 (9th Cir. 1999) ("At step two, we must uphold the administrative regulation unless it is arbitrary, capricious, or [**13] manifestly contrary to the statute.") (citation and internal quotation marks omitted), *petition for cert. filed*, No. 99-243 (Aug. 10, 1999).

Intervenors and *amici*, on the other hand, argue that the Water Quality Act expresses Congress' intent unambiguously and, thus, that we must stop at step one of *Chevron*. See, e.g., *National Credit Union Admin. v. First Nat'l Bank & Trust Co.*, 522 U.S. 479, 118 S. Ct. 927, 938-39, 140 L. Ed. 2d 1 (1998) ("Because we conclude that Congress has made it clear that the same common bond of occupation must unite each member of an occupationally defined federal credit union, we hold that the NCUA's contrary interpretation is impermissible under the first step of *Chevron*." (emphasis in original); *Sierra Club v. EPA*, 118 F.3d 1324, 1327 (9th Cir. 1997) ("Congress has spoken clearly on the subject and the regulation violates the provisions of the statute. Our inquiry ends at the first prong of *Chevron*."). We agree with Intervenors and *amici*: For the reasons discussed below, the Water Quality Act unambiguously demonstrates that Congress did not require municipal storm-sewer discharges to comply [**14] strictly with 33 U.S.C. § 1311(b)(1)(C). That being so, we end our inquiry at the first step of the *Chevron* analysis.

"Questions [HN9] of congressional intent that can be answered with 'traditional tools of statutory construction' are still firmly within the province of the courts" under *Chevron*. *NRDC II*, 966 F.2d at 1297 (citation omitted). "Using our 'traditional tools of statutory construction,' *Chevron*, 467 U.S. at 843 n.9, 104 S. Ct. 2778, when interpreting a statute, we look first to the words that Congress used." *Zimmerman*, 170 F.3d at 1173 (alterations, citations, and internal quotation marks omitted). "Rather than focusing just on the word or phrase at issue, we look to the entire statute to determine Congressional

intent." *Id.* (alterations, citations, and internal quotation marks omitted).

As is apparent, Congress expressly required industrial storm-water discharges to comply with the requirements of 33 U.S.C. § 1311. See 33 U.S.C. § 1342(p)(3)(A) ("Permits for discharges associated with industrial activity shall meet all applicable [**15] provisions of this section and section 1311 of this title.") (emphasis added). By incorporation, then, industrial [**16] storm-water discharges "shall . . . achieve . . . any more stringent limitation, including those necessary to meet water quality standards, treatment standards or schedules of compliance, established pursuant to any State law or regulation (under authority preserved by section 1370 of this title)." 33 U.S.C. § 1311(b)(1)(C) (emphasis added); see also Sally A. Longroy, *The Regulation of Storm Water Runoff and its Impact on Aviation*, 58 J. Air. L. & Com. 555, 565-66 (1993) ("Congress further singled out industrial storm water dischargers, all of which are on the high-priority schedule, and requires them to satisfy all provisions of section 301 of the CWA [33 U.S.C. § 1311]. . . . Section 301 further mandates that NPDES permits include requirements that receiving waters meet water quality based standards.") (emphasis added). In other words, industrial discharges must comply strictly with state water-quality standards.

Congress chose not to include a similar provision for municipal [**16] storm-sewer discharges. Instead, Congress required municipal storm-sewer discharges "to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator . . . determines appropriate for the control of such pollutants." 33 U.S.C. § 1342(p)(3)(B)(iii).

The EPA and Petitioners argue that the difference in wording between the two provisions demonstrates ambiguity. That argument ignores precedent respecting the reading of statutes. Ordinarily, "where [HN10] Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." *Russello v. United States*, 464 U.S. 16, 23, 78 L. Ed. 2d 17, 104 S. Ct. 296 (1983) (citation and internal quotation marks omitted); see also *United States v. Hanousek*, 176 F.3d 1116, 1121 (9th Cir. 1999) (stating the same principle), *petition for cert. filed*, No. 98-323 (Aug. 23, 1999). Applying that familiar [**17] and logical principle, we conclude that Congress' choice to require industrial storm-water discharges to comply with 33 U.S.C. § 1311, but not to include the same requirement for municipal discharges, must be given effect. When we read the two related sections together, we conclude that 33

U.S.C. § 1342(p)(3)(B)(iii) does not require municipal storm-sewer discharges to comply strictly with *33 U.S.C. § 1311(b)(1)(C)*.

Application of that principle is significantly strengthened here, because *33 U.S.C. § 1342(p)(3)(B)* is not merely silent regarding whether municipal discharges must comply with *33 U.S.C. § 1311*. Instead, *§ 1342(p)(3)(B)(iii)* replaces the requirements of *§ 1311* with the requirement that municipal storm-sewer dischargers "reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator . . . determines appropriate for the control of such pollutants." *33 U.S.C. § 1342(p)(3)(B)(iii)*. [**18] In the circumstances, the statute unambiguously demonstrates that Congress did not require municipal storm-sewer discharges to comply strictly with *33 U.S.C. § 1311(b)(1)(C)*.

Indeed, the EPA's and Petitioners' interpretation of *33 U.S.C. § 1342(p)(3)(B)(iii)* would render that provision superfluous, a result that we prefer to avoid so as to give effect to all provisions that Congress has enacted. See *Government of Guam ex rel. Guam Econ. Dev. Auth. v. United States*, 179 F.3d 630, 634 (9th Cir. 1999) ("This [HN11] court generally refuses to interpret a statute in a way that renders a provision superfluous."), as amended, 1999 U.S. App. LEXIS 18691, 1999 WL 604218 (9th Cir. Aug. 12, 1999). Section *1342(p)(3)(B)(iii)* creates a lesser standard than *§ 1311*. Thus, if *§ 1311* continues to apply to municipal storm-sewer discharges, [*1166] the more stringent requirements of that section always would control.

Contextual clues support the plain meaning of *§ 1342(p)(3)(B)(iii)*, which we have described above. [HN12] The Water Quality Act contains other provisions that undeniably exempt certain discharges from the permit requirement altogether (and therefore from [**19] *§ 1311*). For example, "the Administrator shall not require a permit under this section for discharges composed entirely of return flows from irrigated agriculture." *33 U.S.C. § 1342(l)(1)*. Similarly, a permit is not required for certain storm-water runoff from oil, gas, and mining operations. See *33 U.S.C. § 1342(l)(2)*. Read in the light of those provisions, Congress' choice to exempt municipal storm-sewer discharges from strict compliance with *§ 1311* is not so unusual that we should hesitate to give effect to the statutory text, as written.

Finally, our interpretation of *§ 1342(p)(3)(B)(iii)* is supported by this court's decision in *NRDC II*. There, the petitioner had argued that "the EPA has failed to establish substantive controls for municipal storm water discharges as required by the 1987 amendments." *NRDC II*,

966 F.2d at 1308. This court disagreed with the petitioner's interpretation of the amendments:

Prior to 1987, municipal storm water dischargers were subject to the same substantive control requirements as industrial and other types of storm water. In the 1987 amendments, *Congress retained the [**20] existing, stricter controls for industrial storm water dischargers but prescribed new controls for municipal storm water discharge.*

Id. (emphasis added). The court concluded that, under *33 U.S.C. § 1342(p)(3)(B)(iii)*, "Congress did not mandate a minimum standards approach." *Id.* (emphasis added). The question in *NRDC II* was not whether *§ 1342(p)(3)(B)(iii)* required strict compliance with state water-quality standards, see *33 U.S.C. § 1311(b)(1)(C)*. Nonetheless, the court's holding applies equally in this action and further supports our reading of *33 U.S.C. § 1342(p)*.

In conclusion, the text of *33 U.S.C. § 1342(p)(3)(B)*, the structure of the Water Quality Act as a whole, and this court's precedent all demonstrate that Congress did not require municipal storm-sewer discharges to comply strictly with *33 U.S.C. § 1311(b)(1)(C)*.

D. Required Compliance with *33 U.S.C. § 1311(b)(1)(C)*

We are left with Intervenor's contention that the EPA may not, under the CWA, require strict compliance with state water-quality [**21] standards, through numerical limits or otherwise. We disagree.

Although Congress did not require municipal storm-sewer discharges to comply strictly with *§ 1311(b)(1)(C)*, *§ 1342(p)(3)(B)(iii)* states that "permits for discharges from municipal storm sewers . . . shall require . . . such other provisions as the Administrator . . . determines appropriate for the control of such pollutants." (Emphasis added.) That provision gives the EPA discretion to determine what pollution controls are appropriate. As this court stated in *NRDC II*, "Congress [HN13] gave the administrator discretion to determine what controls are necessary. . . . NRDC's argument that the EPA rule is inadequate cannot prevail in the face of the clear statutory language." *966 F.2d at 1308*.

Under that discretionary provision, the EPA has the authority to determine that ensuring strict compliance with state water-quality standards is necessary to control pollutants. The EPA also has the authority to require less than strict compliance with state water-quality standards. The EPA has adopted an interim approach, which "uses

191 F.3d 1159, *; 1999 U.S. App. LEXIS 22212, **;
99 Cal. Daily Op. Service 7618; 99 Daily Journal DAR 9661

best management practices (BMPs) in first-round storm water permits . . . to provide [**22] for the attainment of water quality standards." The EPA applied that approach to the permits at issue here. Under 33 U.S.C. § 1342(p)(3)(B)(iii), the EPA's choice to include [*1167] either management practices or numeric limitations in the permits was within its discretion. See *NRDC II*, 966

F.2d at 1308 ("Congress did not mandate a minimum standards approach or specify that [the] EPA develop minimal performance requirements."). In the circumstances, the EPA did not act arbitrarily or capriciously by issuing permits to Intervenor.

PETITION DENIED.

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER: WQ 2000 - 11

In the Matter of the Petitions of
**THE CITIES OF BELLFLOWER, ET AL., THE CITY OF ARCADIA, AND
WESTERN STATES PETROLEUM ASSOCIATION**

Review of January 26, 2000 Action of the Regional Board
and

Actions and Failures to Act
by both the

California Regional Water Quality Control Board,
Los Angeles Region and Its Executive Officer

Pursuant to Order No. 96-054,

Permit for Municipal Storm Water and Urban Run-Off Discharges Within

Los Angeles County

[NPDES NO. CAS614001]

SWRCB/OCC FILES A-1280, A-1280(a) and A-1280(b)

BY THE BOARD:

On July 15, 1996, the Los Angeles Regional Water Quality Control Board (Regional Water Board) issued a revised national pollutant discharge elimination system (NPDES) permit in Order No. 96-054 (permit) to the 85 incorporated cities and the county within Los Angeles County (the County).¹ The permit covers storm water discharges from municipal separate storm sewer systems throughout the County.²

¹ This was the second storm water permit adopted for Los Angeles County and its cities. The first permit was the subject of an earlier Order. (In the Matter of Natural Resources Defense Council, Inc., Order WQ 91-04). In this permit, the County is designated as the Principal Permittee, and each city is designated as a permittee. The County is required to submit various documents on behalf of all of the permittees.

² The Regional Water Board has since issued a separate permit for one city, Long Beach. The relevant provisions of the Long Beach permit are similar to those in Order No. 96-054.

The permit contains provisions for the regulation of storm water discharges from development planning and construction.³ Pursuant to these provisions, the County was required to submit Standard Urban Storm Water Mitigation Plans (SUSMPs).⁴ The SUSMPs are plans that designate best management practices (BMPs) that must be used in specified categories of development projects. The County submitted SUSMPs, but the Regional Water Board approved the SUSMPs only after making revisions. The Executive Officer issued the revised SUSMPs on March 8, 2000.⁵

On February 25, 2000, the State Water Resources Control Board (State Water Board or Board) received a petition for review of the actions and failures to act regarding the SUSMPs from a number of cities, the Building Industry Association of Southern California and the Building Industry Legal Defense Foundation (jointly referred to as Cities). A second petition was received from the City of Arcadia. And a third petition was received from the Western States Petroleum Association (WSPA). On April 7, 2000, the petitioners filed amendments to their petitions, concerning the March 8, 2000 issuance of the SUSMPs. The Cities' amendment also revised the list of cities included in the petition. The Cities' petition now includes 32 cities. The petitions are legally and factually related, and have therefore been consolidated for purposes of review.⁶ The petitioners also requested a stay of the SUSMPs. This request was denied by letter, dated May 11, 2000.

³ Permit, Part 2.III. These provisions focus more on post-construction impacts of development than on discharges from construction activities.

⁴ Permit, Part 2.III.A.1.c.

⁵ These are referred to herein as the Final SUSMPs. The Final SUSMPs also apply to Long Beach, even though it is subject to a separate permit.

⁶ Cal. Code of Regs., tit. 23, section 2054.

On June 7 and 8, 2000, the Board held a hearing in Torrance. Several entities, including the petitioners, the Regional Water Board, and several environmental groups⁷, were designated parties. The evidence from that hearing has been included in the record before the Board. The record for comments on the petition was kept open until the end of the hearing. The parties were allowed to submit post-hearing briefs.⁸

I. BACKGROUND

In prior Orders⁹ this Board has explained the need for the municipal storm water programs and the emphasis on BMPs in lieu of numeric effluent limitations. The emphasis for preventing pollution from storm water discharges is still on the development and implementation of effective BMPs, but with the expectation that the level of effort will increase over time. In its Interim Permitting Approach¹⁰, the United States Environmental Protection Agency (U.S. EPA) stated that first-round permits should include BMPs, and expanded or better-tailored BMPs in subsequent permits where necessary to attain water quality standards. Dischargers, consultants, and academic institutions in California and nationwide have conducted numerous studies on the effectiveness of BMPs and appropriate design standards. While many questions are still

⁷ The environmental groups are Natural Resources Defense Council, Inc., Santa Monica BayKeeper, and Heal the Bay.

⁸ There are several documents that were not timely received and, therefore, are not made a part of the record before the Board. The hearing notice specified that all evidence from parties must be received by May 31, 2000. The Regional Water Board submitted documents on June 6, 2000. The hearing notice specified that policy statements were due by the close of the hearing. Several comment letters were received June 12, 13, and 19, 2000. None of these submittals are a part of the record. The post-hearing briefs were subject to a 10-page limit. The environmental groups submitted objections to the post-hearing brief submitted by the Cities. First, the environmental groups challenge the length of the brief. All briefs were subject to a 10-page limit. The Cities submitted a 10-page brief, with a 22-page attachment showing extensive proposed revisions to the SUSMPs. This submittal violates the page limit, and only the brief is considered part of the record. Second, the environmental groups claim that an e-mail message referred to by the petitioners is subject to attorney-client privilege and should not have been used in this hearing. This e-mail message, from the Regional Water Board's counsel to one of its engineers, was placed in the Regional Water Board's administrative record and submitted to the State Water Board. Any privilege that may have attached to the message has been waived and no longer exists. Finally, the post-hearing brief from the City of Arcadia was received late and will not be considered. Documents submitted late for interim deadlines (such as the deadline for submitting responses to the petitions), have been included in the record.

⁹ See, especially Orders WQ 91-03 (In the Matter of Citizens for a Better Environment et al.) and WQ 91-04.

¹⁰ Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits. (61 Federal Register 57425.)

outstanding, more is expected of municipal dischargers, and many are implementing more effective programs.

While storm water management plans are improving, our knowledge of the impacts is also growing. Urban runoff has been determined to be a significant contributor of impairment to waters throughout the state. In Los Angeles specifically, beach closures are sometimes associated with urban runoff. In adopting the SUSMPs, the Regional Water Board took note of the urgent need for preventing further pollution from urban runoff and storm water discharges.

It is important to emphasize the role of the SUSMPs within the totality of regulating storm water discharges, and the purpose of these particular control measures. The requirement to prepare SUSMPS was part of the development controls in the permit. In addition to development controls, the permit requires education, public outreach, programs to restrict illicit connections and discharges, and controls on public facilities. In the context of the entire effort required by the permit, the development controls can be seen as preventing the existing situation from becoming worse.

The Final SUSMPs include a list of mandatory BMPs for nine categories of development. There are provisions that are applicable to all categories and lists of BMPs for individual categories. Requirements applicable to all categories include provisions to limit erosion from new development and redevelopment, requirements to conserve natural areas, protection of slopes and channels, and storm drain stenciling. Examples of BMPs specific to categories of discharge include design of loading docks for commercial projects and design of fueling areas for retail gasoline outlets. In most respects, the Final SUSMPs were similar to those proposed by the County. The significant departures were the inclusion of a numeric design standard for structural or treatment control BMPs, and the inclusion of certain types of projects that were not

covered in the County's proposal. The design standard creates objective and measurable criteria for the amount of runoff that must be treated or infiltrated by BMPs.

The record indicates that the purpose of the development controls, including the SUSMPs, is not simply to prevent pollution associated with construction runoff. As the petitioners point out, construction discharges are already subject to this Board's Statewide Construction Permit. The development controls in the SUSMPs, on the other hand, focus on post-construction runoff. They are aimed at limiting not just the pollutants in runoff from the new development, but also the volume of runoff that enters the municipal storm sewer system. By limiting runoff from new development, the SUSMPs prevent increased impacts from urban runoff generally. There is adequate technical information in the record to show that by controlling the volume of runoff from new development, BMPs can be effective in reducing the discharge of pollutants in storm water runoff.

The Procedure for Adopting the SUSMPs

The permit requires a program for controls on Development Planning and Construction. It involved a number of submissions by the County in consultation with the Cities. The first step was submission of a checklist for determining priority projects and exempt projects. The checklist was due on January 30, 1998. A list of recommended BMPs for development projects was also due on that date. The SUSMPs were due within six months of approval of the BMP list, and were to incorporate BMPs for certain categories of development. Following approval of the SUSMPs, the cities and County were to implement development programs for priority projects, consistent with the BMP list and the SUSMPs.

The BMP list was not approved until April 22, 1999. Thereafter, the County submitted proposed SUSMPs on July 22, 1999. The Regional Water Board held a public workshop on

August 10, 1999. Following the workshop, the County submitted revisions to the SUSMPs on August 12, 1999. On August 16, 1999, the Regional water Board gave notice that it would discuss the SUSMPs in a public meeting on September 16, 1999. There was significant discussion at that meeting regarding the intent of the Executive Officer to approve the SUSMPs, but with revisions including a numeric design standard. At the conclusion of the meeting, the Regional Water Board members asked the Executive Officer to revise the SUSMPs and bring them back to another meeting. On December 7, 1999, the Executive Officer circulated revised SUSMPs for public review. This document incorporated a numeric design standard and made other revisions to the permittees' proposal. The Regional Water Board held a hearing on the SUSMPs on January 26, 2000. At that meeting, the Regional Water Board endorsed the SUSMPs revised by the Executive Officer, but directed him to make further changes. The Executive Officer issued the Final SUSMPs on March 8, 2000.

The Contents of the Final SUSMPs

The permit provides that the SUSMPs must incorporate the appropriate elements of the BMP list and, at a minimum, apply to seven development categories: 100-plus home subdivisions; 10-plus home subdivisions; 100,000-plus square foot commercial developments; automotive repair shops; retail gasoline outlets; restaurants; and hillside single-family dwellings.

The SUSMPs proposed by the County applied to these seven categories. Various BMPs applied to the different categories, and the SUSMPs contained narrative mitigation requirements for source control and treatment. The July proposals stated:

“The development must be designed so as to mitigate (infiltrate and/or treat) the site runoff generated from impervious directly connected areas that may contribute pollutants of concern to the storm water conveyance system.”

There were no numeric design criteria for mitigation. According to various participants, earlier County drafts had included design standards to mitigate flows from 0.6-inch storm events. But any numeric criteria had been removed from the version that was submitted.

In its revised SUSMPs, submitted on August 12, the County explained in its cover letter that the mitigation language did not mean that all runoff must be mitigated. Rather, the County's intent was to omit a numerical standard from the SUSMPs. The revised SUSMPs no longer referred to mitigation at all. Instead, the following language replaced the mitigation requirement:

“The development must be designed so as to minimize, to the maximum extent practicable (MEP), the introduction of pollutants of concern that may result in significant impacts, generated from site runoff of directly connected impervious areas (DCIA), to the storm water conveyance system as approved by the building official.”

The Final SUSMPs, as approved by the Executive Officer and the Regional Water Board, included several revisions from the County's submittal. The revision that is of greatest concern to the petitioners is the addition of Design Standards for Structural or Treatment Control BMPs.¹¹ The design standards require that developments subject to the SUSMPs shall be designed to mitigate storm water runoff (by treatment or infiltration) from one of the following:

- “1. The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area..., or
2. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment..., or
3. The volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system, or
4. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” (0.75 inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.”

¹¹ The Final SUSMPs also include the narrative language quoted from the County's August 22, 1999 proposal.

The Final SUSMPs also applied to two additional categories of development: parking lots over 5,000 square feet or with 25 or more spaces and exposed to storm water, and to developments in environmentally-sensitive areas. Other revisions included application to all projects in the categories instead of discretionary projects only and the definition of redevelopment.

II. CONTENTIONS AND FINDINGS¹²

Contention: The petitioners contend that the Regional Water Board erred in not complying with the Administrative Review Process within the permit, and acted arbitrarily and capriciously and in violation of the Clean Water Act and state law.

Finding: The permit required the County, in consultation with the cities subject to the permit, to submit SUSMPs. The permit includes some general minimum requirements for the SUSMPs.¹³ The Executive Officer is granted authority to approve the SUSMPs.¹⁴

The permit also contains an administrative review process.¹⁵ The permit states that the administrative review process “formalizes the procedure for review and acceptance of reports and documents” and “provides a method to resolve any differences in compliance expectations between the Regional Board and Permittees, prior to initiating enforcement action.”¹⁶ Following this introductory statement, the permit includes two procedures. The first is for review and approval or disapproval of reports and documents. The second is the dispute resolution section that must be followed prior to enforcement action.

¹² This Order does not address all of the issues raised by the petitioners. The Board finds that the issues that are not addressed are insubstantial and not appropriate for State Water Board review. (See *People v. Barry* (1987) 194 Cal.App.3d 158, [239 Cal.Rptr. 349], Cal. Code Regs., tit. 3, § 052.)

¹³ Permit, Part 2, III.A.1.c.

¹⁴ Permit, Part 2, III.A.2.

¹⁵ Permit, Part 2, I.G.

¹⁶ *Id.*

The process for review of documents that are subject to the Executive Officer's approval is that the Executive Officer will notify the permittees of the results of the review and approval or disapproval within 120 days. If the Executive Officer does not do so, the permittees must notify the Regional Water Board of their intent to implement the documents without approval. The Executive Officer then has 10 days to respond, or the permittees may implement the program and the Executive Officer may not make modifications.

The dispute resolution procedure is to be used when the Executive Officer determines that a permittee's storm water program is insufficient to meet the permit's provisions. The Executive Officer must send a "Notice of Intent to Meet and Confer" with the permittee. A meet and confer period then ensues, resulting in a written "Storm Water Program Compliance Amendment (SWPCA)." The permittee is provided time to comply with the SWPCA. The Executive Officer is not allowed to take enforcement action against a permittee until the Executive Officer notifies the permittee in writing that the administrative review process has been exhausted and that a violation exists warranting enforcement.

The petitioners contend that the Executive Officer failed to notify the permittees that their SUSMPs were inadequate within 120 days of its submittal. The petitioners also argue that, by revising the SUSMPs without pursuing the dispute resolution process, the Regional Water Board "violated" the terms of the permit.

The provision for review of documents, which clearly includes the SUSMPs, requires that the Executive Officer notify the permittees of the results of the review and approval or disapproval within 120 days. The County submitted the revised SUSMPs on August 12, 1999. Within 120 days, the Regional Water Board held a workshop where staff expressed their concerns with the SUSMPs. Also within 120 days the Regional Water Board itself held a public

meeting where there was extensive discussion and concern by board members that the SUSMPs did not include a numeric standard. And, prior to any notification by the permittees that they would proceed with implementing their SUSMPs, the Regional Water Board held a hearing January 26, 2000, where it directed the Executive Officer to issue the SUSMPs with revisions. The Executive Officer did so on March 8, 2000.

It is clear from the record that the Executive Officer, and the Regional Water Board itself, did inform the permittees that the SUSMPs were inadequate. There was no requirement for a specific form for expressing disapproval of documents. The extensive discussion and meetings on the need for revisions to the SUSMPs, and the Executive Officer's approval of revised SUSMPs, plainly refutes the allegation that the Regional Water Board never notified the permittees of its disapproval of the County's proposed SUSMPs.

The permittees also claim that the Regional Water Board "violated" the permit by failing to institute the meet and confer process.¹⁷ The dispute resolution process, which includes meet and confer, did not apply to the decision to disapprove the proposed SUSMPs. That process is only required when the Regional Water Board ultimately takes an enforcement action against a permittee. It is separate from the process for review and approval or disapproval of documents, and does not even appear to relate to possible enforcement actions for submission of inadequate documents. This is illustrated by the fact that the provision regarding documents refers to submittals from both the Principal Permittee and the individual permittees, while the dispute resolution provision refers only to the permittees. This distinction is relevant because the County is charged with submitting the documents, while the individual permittees are responsible for compliance. A fair reading of the entire section on the administrative review process is that the

¹⁷ We note that permits are issued to permittees to allow discharges to waters of the state. It is only permittees, and not Regional Water Boards, who can be charged with violating permits.

review and approval or disapproval of documents applies to submission of documents by the County on behalf of the cities, while the dispute resolution process applies to enforcement actions against any permittees for failing to implement adequate programs.

Contention: The petitioners contend that the Regional Water Board was not authorized to revise the SUSMPs to add more stringent requirements.

Finding: The petitioners contend that the mitigation standards in the SUSMPs are more stringent than the requirement in the permit to reduce pollutants in storm water runoff to the maximum extent practicable (MEP)¹⁸. The issue of what level of protection constitutes MEP will be discussed *Infra*, in the discussion of the reasonableness of the numeric standards. But the petitioners also make certain procedural claims on this point. They argue that in approving the BMP list, the Regional Water Board determined that those BMPs constituted MEP and that the Board could not add additional BMPs in the SUSMPs. They also contend the Regional Water Board itself had no authority to “usurp” the Executive Officer’s role in reviewing the SUSMPs.¹⁹ Finally, the petitioners contend that the Regional Water Board was not authorized to mandate a program for the permittees without amending the permit.

The permit requires the County to submit a list of BMPs for approval. The Regional Water Board approved this list. Following approval of the list, the County was required to submit the SUSMPs, which must “incorporate the appropriate elements of the recommended BMPs list.”²⁰ The petitioners contend that by approving the list, the Regional Water Board determined that those BMPs constituted MEP, and that under the terms of the permit the Regional Water Board could not require additional BMPs.

¹⁸ The technology-based standard for controls under municipal storm water permits is MEP. For a fuller discussion of this standard, see Order WQ 91-03.

¹⁹ It is undisputed that, at its January 26, 2000 meeting, the Board directed the Executive Officer to make additional revisions to the SUSMPs.

²⁰ Permit, Part 2, III.A.1.c.

In addressing this contention, we face what appears to be a fundamental misunderstanding of the numeric design standards on the part of the petitioners. The design standards are objective criteria that developers must achieve in designing their BMPs. The design standards are not separate BMPs. The standards tell what magnitude of storm event the BMPs must be designed to treat or infiltrate. They do not specify the BMPs that must be employed.

The SUSMPs as submitted by the County specify BMPs for various categories of development. Many of these BMPs are designed to minimize the pollutants in storm water runoff, by reducing flow through infiltration or by treatment. Examples of BMPs proposed by the County include infiltration basins and trenches, oil/water separators, and media filtration. The County's proposed SUSMPs also included language requiring minimizing the introduction of pollutants to the storm water conveyance system. That language remains unchanged in the Final SUSMPs. The only significant difference between the two versions of the SUSMPs was that the Regional Water Board established numeric criteria for designing the BMPs.

In adopting the Final SUSMPs, the Regional Water Board based its decision on the MEP standard.²¹ The Regional Water Board did not significantly revise the BMP list or specify further the actions that developers must take to comply with the SUSMPs. Thus, we find that the Regional Water Board did not inappropriately revise its determination of what constituted MEP.

The Regional Water Board is the political body responsible for water quality control in the Los Angeles region.²² While the Regional Water Board may delegate specified powers and duties to its Executive Officer,²³ it can at any time act on its own behalf. The fact that the Board authorized its Executive Officer to approve the SUSMPs in the permit did not mean that the Board thereby denied itself the opportunity to provide direction to the Executive Officer in his

²¹ Resolution R-00-02.

²² Water Code sections 13200 and 13225.

²³ Water Code section 13223.

approval. Such an interpretation of its delegation authority would result in an improper failure of the Board to assume responsibility for water quality in the region.

We also find that the Regional Water Board was authorized to revise the SUSMPs to achieve compliance with the permit's requirements. The SUSMPs are a part of implementation of the permit. Because the permit regulates storm water discharges throughout the entire Los Angeles region and it is implemented by 85 cities and the County, it is obvious that the permit could not spell out every detail of the program for the five-year term of the permit. Instead, the implementation is through the submission, review and approval, and implementation of various programs, including the SUSMPs.²⁴ Where it receives a submission that it finds is not consistent with the requirements of the permit, it is reasonable for the Regional Water Board to be able to require revisions. The Regional Water Board is not required to amend the permit each time it approves a submittal or approves a submittal with revisions. On the other hand, if the Regional Water Board's action in requiring revisions is inconsistent with the terms of the permit, then the Board should not act without first amending the permit. While the Regional Water Board could have required the County to make the revisions rather than making them itself, we see no harm in the Regional Water Board's approach.

As will be discussed below, in most respects the Final SUSMPs are consistent with the permit. But there are some portions of the SUSMPs that are not consistent, and in those cases the SUSMPs provisions are further revised in this Order.

Contention: The petitioners make various procedural claims, including that they were denied due process, and that the Regional Water Board violated the Administrative Procedure

²⁴ A fuller discussion of the use of storm water management plans to incorporate a developing program is found in Order No. WQ 91-03.

Act, the California Environmental Quality Act (CEQA), and the California Constitution, Article XIII B, section 6 (regarding state mandates).

Finding: The petitioners point out that at the January 26, 2000 Regional Water Board hearing, there was some confusion over late changes to the SUSMPs and they contend they were not provided adequate opportunity to comment. There was significant discussion of the SUSMPs over several months. We do not agree with the petitioners that a program of this magnitude must necessarily take years to develop. But we are concerned that at the January 26, 2000 hearing, interested persons and permittees were not given adequate time to review late revisions or to comment on them. Given the intense interest in this issue, the Regional Water Board should have diverged from its strict rule limiting individual speakers to three minutes and conducted a more formal process. Such a process should provide adequate time for comment, including continuances where appropriate.²⁵ But to the extent the Regional Water Board's process caused any harm, this Board cured those harms. We held a two-day hearing in Los Angeles County, where all parties were allowed significant time to present their positions and testimony. In addition, we allowed the introduction of new evidence that had not been presented to the Regional Water Board. At this point, all parties have been afforded a full opportunity to review the Final SUSMPs, to present their positions and evidence, and to engage in cross-examination. The petitioners' due process rights have been protected.

The Board has already addressed the contentions regarding compliance with other laws in prior decisions. The Administrative Procedure Act exempts the adoption of permits from its requirements.²⁶ While the SUSMPs are not a permit, they are implementing documents for a

²⁵ For future adjudicative proceedings that are highly controversial or involve complex factual or legal issues, we encourage regional water boards to follow the procedures for formal hearings set forth in Cal. Code of Regs., tit. 23, section 648 et seq.

²⁶ Government Code section 11352; See, Order No. 95-4 (In the Matter of the City and County of San Francisco).

permit, and are therefore subject to the exemption. Moreover, they are relevant only to this permit, and are not a general rule of application. The constitutional provisions regarding state mandates also do not apply to NPDES permits.²⁷ As will be explained below, the SUSMPs as revised herein, are consistent with MEP and therefore are federally mandated. The provisions of CEQA requiring adoption of environmental documents also do not apply to NPDES permits.²⁸ Again, as an implementing document for the permit, there is no requirement for a separate CEQA analysis.²⁹

Contention: The petitioners contend that the SUSMPs do not properly apply the maximum extent practicable standard.

Finding: The permit, consistent with Clean Water Act section 402(p)(3)(B)(iii), requires controls to reduce the discharge of pollutants to the maximum extent practicable, or MEP.³⁰ In approving the Final SUSMPs, the Regional Water Board acknowledged that one of the primary objectives of the municipal storm water program is the requirement to reduce the discharge of pollutants from storm water conveyance systems to the MEP.³¹ While all parties appear to agree that the standard for the SUSMPs is MEP, they disagree about what level of effort is necessary to comply with that standard.

The petitioners approach this issue from two angles. First, they contend that the SUSMPs will not provide water quality benefits that reflect MEP. Second, they contend that there could be adverse impacts on groundwater quality that have not been adequately evaluated.

²⁷ See, Order No. WQ 90-3 (In the Matter of San Diego Unified Port District).

²⁸ Water Code section 13389.

²⁹ We do note with interest the environmental groups' comment that if the permittees believed it was necessary to comply with the APA and CEQA prior to adoption of the SUSMPs, then they themselves would have violated those acts in their submissions of the proposed SUSMPs.

³⁰ Permit, Finding 13.

³¹ Final SUSMPs, at page 2; Resolution No. R-00-02, at page 3.

Storm Water Design Standards as MEP

In adopting the Final SUSMPs, the Regional Water Board found that many rivers and streams in Los Angeles County are impaired for pollutants found in storm water and urban runoff, and that storm water runoff carries pollutants from nearly all types of developed properties.³² Pollutant loading from the aggregate of development in the basin results in impairments from sediments, metals, complex organic compounds, oil and grease, nutrients, and pesticides.³³ The Final SUSMPs reflect two goals: to reduce the amounts of these pollutants in runoff and to reduce the ability of runoff to act as a conveyance system to deliver more pollutants to receiving waters. The Final SUSMPs, which include lists of BMPs and design standards requiring treatment or infiltration, address these two goals.

Clean Water Act section 402(p)(3)(B)(iii), which sets forth the requirements for establishing MEP in municipal storm water permits, provides that such permits “shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.” The United States Environmental Protection Agency (U.S. EPA), in a guidance document, explains that BMPs should be used in first-round storm water permits, and “expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards.”³⁴ The Clean Water Act, as interpreted by U.S. EPA, does require that, in a second-round permit,³⁵ expanded BMPs may be appropriate. In light of the number of water

³² Resolution No. R-00-02.

³³ *Id.*

³⁴ Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, 61 Federal Register 57425 (1996).

³⁵ The original permit was issued in 1990. The 1996 permit is a second-round permit.

bodies impaired by runoff in Los Angeles County, it was appropriate to expand the scope of BMPs during the permit term.

The regulations implementing section 402(p) specifically require municipalities to have controls to reduce the discharge of pollutants from their storm sewer systems that “receive discharges from areas of new development and significant redevelopment,” including post-construction discharges.³⁶ Clearly, it was appropriate for the Regional Water Board to require BMPs for new development and significant redevelopment. The permittees, who submitted their own version of SUSMPs with listed BMPs for categories of development, appear to have no real quarrel with this general mandate.

This Board has already endorsed requirements to limit the flow of the “first flush” of storm water, which may contain more significant pollutants.³⁷ The permittees’ own version of the SUSMPs required mitigation of storm water runoff by treatment or infiltration, thus conceding the propriety of these two approaches to lessening the impact of storm water discharges. The crux of the disagreement is that the Regional Water Board added numeric design standards to establish the amount of runoff that must be treated or infiltrated, and required the mandatory application of these standards to categories of development.

The addition of measurable standards for designing the BMPs provides additional guidance to developers and establishes a clear target for the development of the BMPs. The U.S. EPA guidance manual suggests the use of design criteria and performance standards for post-construction BMPs.³⁸ The numeric criteria the Regional Water Board adopted essentially

³⁶ 40 CFR section 122.26(d)(2)(iv)(A)(2).

³⁷ In the Matter of National Steel and Shipbuilding Company, et al., Order WQ 98-07, at slip opinion 7.

³⁸ Guidance Manual for the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems, at page 6-4 (November 1992).

requires that 85 percent of the runoff from the development be infiltrated or treated.³⁹ In adopting these standards, the Regional Water Board based its decision on a research review of standards in other states and a statistical analysis of the rainfall in the area. The standard was set to gain the maximum benefit in mitigation while imposing the least burden on developers.⁴⁰ In light of the evidence of the use of this or more stringent standards in other states, the expert testimony supporting this standard, the endorsement by U.S. EPA in its comments, and the cost-effectiveness of its implementation (discussed below), the Regional Water Board acted appropriately in determining that the standards reflect MEP.⁴¹

We also find that the Regional Water Board appropriately applied these standards to seven of the categories listed in the SUSMPs: single-family hillside residences, 100,000 square foot commercial developments, automotive repair shops, restaurants, home subdivisions with 10 to 99 housing units, home subdivisions with 100 or more housing units, and parking lots with 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff.⁴² These categories, except for parking lots, were already targeted for special treatment in the permit. The evidence shows that each listed category can be a significant source of pollutants and/or runoff following development. It is appropriate that the design standards apply so that BMPs for these categories of development result in the infiltration or treatment of a significant amount of the runoff.

³⁹ Four different methods of calculation are permitted, so the percentage of capture may vary slightly.

⁴⁰ At the hearing in this matter, Regional Water Board staff explained that the standard was set at the bottom of the “knee” of the curve where the benefits of the mitigation requirements decrease and the cost increases. Other states have set the standard higher along this curve, requiring 90 to 95 percent mitigation.

⁴¹ This conclusion in no way departs from our acceptance of BMPs in lieu of numeric effluent limitations in storm water permits. (See, e.g., Order WQ 91-03 and Order WQ 91-04.) The numeric standard is a design standard for BMPs. It does not quantify or limit the pollutants in the effluent. It also does not specify which of the listed BMPs must be employed.

⁴² As discussed below, this Board is revising the SUSMPs to delete the application of the design standards to retail gasoline outlets and to locations within or directly adjacent to or discharging directly to environmentally-sensitive areas.

Potential Impacts on Ground Water

The petitioners contend that infiltration of runoff may lead to ground water pollution, and that the Regional Water Board did not properly consider such potential impacts. The mitigation standards provide for a waiver where there is a risk of ground water contamination because a known unconfined aquifer lies beneath the land surface or an existing or potential underground source of drinking water is less than ten feet from the soil surface.⁴³ The Final SUSMPs also include a discussion on how to use infiltration so that the risk of contamination of groundwater is reduced, and where infiltration is not appropriate.⁴⁴

The Regional Water Board did consider the potential impacts to groundwater from infiltration, and included appropriate limitations and guidance on its use as a BMP. These provisions will ensure adequate protection of groundwater from any adverse impacts due to infiltration.

Contention: The petitioners contend the Regional Water Board failed to show that the SUSMPs as adopted are cost-effective and that the benefits to be obtained outweigh the costs.

Finding: The petitioners refer to the Preamble to the Phase II storm water regulations⁴⁵ as the basis for their economic argument. The quoted language, however, does not wholly support the petitioners' contention. The Preamble states that President Clinton's Clean Water Initiative clarifies "that the maximum extent practicable standard should be applied in a site-specific, flexible manner, taking into account cost considerations as well as water quality effects."⁴⁶ It is clear that cost should be considered in determining MEP; this does not mean that

⁴³ Final SUSMP, page 14.

⁴⁴ *Id.*, at page 15.

⁴⁵ 64 Federal Register 68722 and following. These regulations do not apply to the permit, but the general language on MEP is relevant to EPA's interpretation of the standard.

⁴⁶ 64 Federal Register 68722, 68732 (December 8, 1999).

the Regional Water Board must demonstrate that the water quality benefits outweigh the economic costs.

While the standard of MEP is not defined in the storm water regulations or the Clean Water Act, the term has been defined in other federal rules. Probably the most comparable law that uses the term is the Superfund legislation, or CERCLA, at section 121(b). The legislative history of CERCLA indicates that the relevant factors, to determine whether MEP is met in choosing solutions and treatment technologies, include technical feasibility, cost, and state and public acceptance.⁴⁷ Another example of a definition of MEP is found in a regulation adopted by the Department of Transportation for onshore oil pipelines. MEP is defined as to “the limits of available technology and the practical and technical limits on a pipeline operator”⁴⁸

These definitions focus mostly on technical feasibility, but cost is also a relevant factor. There must be a serious attempt to comply, and practical solutions may not be lightly rejected. If, from the list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. Thus while cost is a factor, the Regional Water Board is not required to perform a cost-benefit analysis.

In reviewing the record, it is apparent that the Regional Water Board did evaluate the cost of the SUSMPs. While the petitioners claim there is no evidence in the record to show the

⁴⁷ 132 Cong. Rec. H 9561 (Oct. 8, 1986).

⁴⁸ 49 CFR section 194.5.

SUSMPs are necessary and cost effective, the opposite is true. The record is replete with documentation of costs of pilot mitigation projects, studies from similar programs in other states, and research studies. The Regional Water Board complied with the requirement to consider cost.

The Regional Water Board found that the cost to include BMPs that will meet the mitigation criteria will be one to two percent of the total development cost. This amount appears reasonable, especially in light of the amount of impervious surface already in Los Angeles County and the impacts on impaired water bodies. In considering the cost of compliance, it is also important to consider the costs of impairment. The beach closures in the Los Angeles region, well documented in the evidence, have reached critical proportions. These beach closures clearly have a financial impact on the area, and should be positively affected by the SUSMPs.

We do note that there could be further cost savings for developers if the permittees develop a regional solution for the problem. We recommend that the cities and the County, along with other interested agencies, work to develop regional solutions so that individual dischargers are not forced to create numerous small-scale projects. While the SUSMPs are an appropriate means of requiring mitigation of storm water discharges, we also encourage innovative regional approaches.⁴⁹

Contention: The petitioners have raised contentions regarding details of the SUSMPs, including the amount of time allowed for inclusion of SUSMPs in local ordinances, and their application to both “discretionary” and “non-discretionary” projects. In addition, during the hearing certain ambiguities in the wording of the Final SUSMPs became apparent, including the provisions regarding redevelopment and environmentally-sensitive areas. In this portion of the

⁴⁹ We note that the SUSMPs as written do not in any way preclude the development of regional solutions approved by the Regional Water Board as a means to comply with the BMP and design standard requirements.

Order we address these issues and also the application of the design standards to retail gasoline outlets (RGOs) and the waiver funding requirements.

Finding: The testimony at the hearing in this matter revealed that there are specific provisions of the SUSMPs that create confusion as to the types of development projects subject to the mitigation design standards. The petitioners also contend that application of the standards to specific types of development either is unreasonable or is inconsistent with the terms of the permit. The specific requirements are discussed below.

Retail Gasoline Outlets

Petitioner WSPA contends that RGOs should be excluded from the SUSMPs. Its petition raised the same general contentions as the other petitioners, but at the hearing WSPA presented evidence specific to RGOs. In particular, WSPA raised questions about the propriety of applying the design standards for BMPs to RGOs. In considering this issue, we conclude that construction of RGOs is already heavily regulated and that owners may be limited in their ability to construct infiltration facilities. Moreover, in light of the small size of many RGOs and the proximity to underground tanks, treatment may not always be feasible, or safe. The mandatory BMPs that are included in the SUSMPs may be adequate to achieve MEP at RGOs, but the Regional Water Board should add additional mandatory BMPs, such as use of dry cleanup methods (e.g. sweeping) for removal of litter and debris, use of rags and absorbents for leaks and spills, restricting the practice of washing down hard surfaces unless the wash water is collected and disposed of properly, annual training of employees on proper spill cleanup and waste disposal methods, and the inclusion of BMPs to address trash receptacle areas and air/water supply

areas.⁵⁰ We conclude that because RGOs are already heavily regulated and may be limited in their ability to construct infiltration facilities or to perform treatment, they should not be subject to the BMP design standards at this time, and recommend that the Regional Water Board undertake further consideration of a threshold relative to size of the RGO, number of fueling nozzles, or some other relevant factor. This Order should not be construed to preclude inclusion of RGOs in the SUSMP design standards, with proper justification, when the permit is reissued.

Redevelopment Projects

The SUSMPs were written to apply to new development and to some types of redevelopment in nine categories of projects. The definition of “redevelopment” reflected the intent of the Regional Water Board to define the scope of redevelopment projects subject to the requirements. That definition⁵¹, however, was somewhat confusing, and it was apparent from testimony at the hearing that the parties had different understandings of the scope of redevelopment subject to the SUSMPs. In their post-hearing briefs, the various parties appeared to agree on the actual intent of the Regional Water Board in including redevelopment in the SUSMPs. This intent was to include redevelopment that adds or creates at least 5,000 square feet of impervious surface to the original development and, where the addition constitutes less than 50 percent of the original development, to limit the application of the BMP design standards to the addition.

⁵⁰ These BMPs are from a list of BMPs in a publication of the California Storm Water Quality Task Force. (Best Management Practice Guide – Retail Gasoline Outlets, March 1997.) This publication includes BMPs in addition to those listed in the SUSMPs. All BMPs recommended in this publication should be mandated.

⁵¹ The SUSMPs state: “Redevelopment” means, on an already developed site, the creation or addition of at least 5,000 square feet of impervious surfaces or the creation or addition of fifty percent or more of impervious surfaces or the making of improvements to fifty percent or more of the existing structure. Redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces.

While some parties requested further requirements for development, it appears that the Regional Water Board's original intent was relatively simple to apply and results in a fair and appropriate application of the SUSMPs' requirements to redevelopment. Therefore, we will revise the definition in the SUSMPs accordingly.

Environmentally-Sensitive Areas

The permit required that the SUSMPs address at least seven development categories.⁵² The final SUSMPs added two more categories: parking lots of 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff; and location within or directly adjacent to an environmentally-sensitive area (ESA). The petitioners contend that the addition of ESAs was inappropriate because the permit refers only to "development categories"⁵³ and ESA is a location category.

Whether or not the Regional Water Board went beyond the permit's terms in including this category, we find a fundamental problem with the language of the SUSMPs regarding ESAs. All of the other categories are relatively simple to apply because they describe the types of development that fall within the category. For instance, the threshold for a commercial development is 100,000 square feet. If the development is smaller, it is not subject to the SUSMPs. But for developments within ESAs, the SUSMPs contain no threshold. This absence led to speculation by the petitioners that something as small as a new patio on a home in an ESA would make the SUSMPs applicable. The Regional Water Board, at the hearing and in its post-hearing brief, conceded that there should be some threshold. While the Regional Water Board

⁵² The categories listed in the permit are: single-family hill residences, 100,000 square-foot commercial developments, automotive repair shops, retail gasoline outlets, restaurants, home subdivisions with 10 to 99 housing units, and home subdivisions with 100 or more housing units. Permit, Part 2, III.A.1.c.

⁵³ *Id.*

did recommend a specific threshold, we believe that it is inappropriate for this Board to add a threshold that has not been fully discussed by all interested persons.

While it may be appropriate to include more stringent controls for developments in ESAs, we also note that such developments are already subject to extensive regulation under other regulatory programs. Moreover, in light of the permit language limiting the SUSMPs to development categories, ESAs are not an appropriate category within the SUSMPs. The Regional Water Board may choose to consider the issue further when it reissues the permit.

Discretionary and Non-Discretionary, or Ministerial, Projects

The petitioners contend that the SUSMPs should apply only to projects that are considered “discretionary” within the meaning of California Environmental Quality Act (CEQA).⁵⁴ They argue that the inclusion of non-discretionary, or ministerial, projects is inconsistent with the terms of the permit.

The permit provisions on development projects do refer to “discretionary” projects in several places. The permittees are directed to develop a checklist for determining priority and exempt projects.⁵⁵ Priority projects are defined as development and redevelopment projects requiring discretionary approval, which may have a potential significant effect on storm water quality.⁵⁶ The permittees are also required to develop a BMP list.⁵⁷ In developing the SUSMPs, the permittees are required to incorporate appropriate elements of the BMP list.⁵⁸ Next, the permittees must develop a program on planning control measures for priority projects (which are limited to projects requiring discretionary approval), consistent with the list of BMPs and the

⁵⁴ Public Resources Code section 21000 *et seq.*

⁵⁵ Permit, Part 2, III.A.1.a.

⁵⁶ *Id.*

⁵⁷ Permit, Part 2, III.A.1.b.

⁵⁸ Permit, Part 2, III.A.1.c.

SUSMPs.⁵⁹ The permit further states that, in order to assure compliance with these requirements, the permittees must develop guidelines on preparing CEQA documents that link mitigation conditions to “local discretionary project approvals.”⁶⁰

Taken as a whole, the provisions of the permit appear to link the development requirements for SUSMPs to developments that receive discretionary approval by local governments, as defined in CEQA. The SUSMPs are an implementation tool for the permit and must be consistent with the permit. While the limitation of the SUSMPs to discretionary projects may not be sufficiently broad for an effective storm water control program, the Regional Water Board acted inappropriately in expanding the SUSMPs to include non-discretionary projects. The Regional Water Board may consider expanding the development controls beyond CEQA discretionary projects when it reissues the permit. But at this time, the SUSMPs must be revised so that they are limited to development projects requiring discretionary approval within the meaning of CEQA.⁶¹

Waiver Funding Requirement

Where a waiver is granted from the design standard requirements, the Final SUSMPs provide that the permittee must require the project proponent to transfer the cost savings to a storm water mitigation fund. The fund is to be operated by a public agency or a non-profit entity, to promote regional or alternative solutions for storm water pollution in the same storm watershed. The petitioners contend that the funding requirement will create an additional administrative burden.

⁵⁹ Permit, Part 2, III.a.2.

⁶⁰ Permit, Part 2, III.a.3.b.

⁶¹ We note that the Final SUSMPs already include a definition of “discretionary project” consistent with the definition in the CEQA guidelines. Final SUSMPs at page 4 of 25; Title 14, California Code of Regulations, section 15357. Apparently this definition was inadvertently retained after the Regional Water Board decided to expand the SUSMPs beyond discretionary projects.

The concept of a mitigation fund or “bank” is a positive idea for obtaining regional solutions to storm water runoff. As a long-term strategy, municipal storm water dischargers should work to establish regional mitigation facilities, which may be more cost-effective and more technically effective than mitigation structures at individual developments. But at this point there are not sufficient resources in place to require all permittees to establish such funds or to find appropriate non-profit organizations. Before mandating funding, preliminary questions should be answered, including who will manage the fund, what types of projects it will be used for, what entities can legally operate such funds, and how permittees will determine the amount of the assessments. It would be appropriate for the County to consider developing a program with the appropriate flood control agency, or as a model for the separate cities to develop. There may be suitable agencies to administer such funds, but the development of programs may take some time. The Regional Water Board should consider adopting such a program when it reissues the permit, after consultation with the appropriate local agencies.

III. CONCLUSIONS

Based on the discussion above, the Board concludes that:

1. The Regional Water Board complied with the procedural requirements of the permit, including the Administrative Review Process, in approving the Final SUSMPs.
2. The Regional Water Board was authorized to revise the SUSMPs by including more stringent requirements than the permittees had proposed.
3. The Regional Water Board complied with did not violate the Administrative Procedure Act, CEQA, or the Constitutional provisions on state mandates. The petitioners’ due process rights have been protected
4. The Regional Water Board considered the costs of the SUSMPs, and acted reasonably in requiring these controls in light of the expected benefits to water quality.

5. The Final SUSMPs reflect a reasonable interpretation of development controls that achieve reduction of pollutants in storm water discharges to the maximum extent practicable.
6. The SUSMPs include adequate protections of groundwater quality from any impacts from infiltration.
7. The SUSMPs will be revised to clarify the intent of the Regional Water Board and to make them consistent with the permit. Specifically, retail gasoline outlets should not be subject to the BMP design standards because they are already heavily regulated and may be limited in their ability to construct infiltration facilities or to perform treatment. Redevelopment projects should be subject to the SUSMPs only if they result in creation or addition of 5,000 square feet of impervious surfaces. Environmentally-sensitive areas should not be listed as a category in the SUSMPs. The SUSMPs should only apply to discretionary projects. The requirement for funding by project proponents who receive waivers should be deleted. The SUSMPs will be amended as shown in the attachment to this Order.
8. In light of the revisions of the SUSMPs made by this Order, and to allow the permittees adequate time to adopt implementing ordinances, the deadline for adopting ordinances will be revised to January 15, 2001, and the effective date of the Final SUSMPs will be revised to February 15, 2001.

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IV. ORDER

IT IS HEREBY ORDERED that the Standard Urban Storm Water Mitigation Plans for Los Angeles County and Cities in Los Angeles County is revised consistent with the amendments attached hereto. In all other respects the petitions are dismissed.

CERTIFICATION

The undersigned, Administrative Assistant to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 5, 2000.

AYE: Arthur G. Baggett, Jr.
Mary Jane Forster
John W. Brown

NO: None

ABSENT: Peter S. Silva

ABSTAIN: None

/s/
Maureen Marché
Administrative Assistant to the Board

AMENDMENTS TO SUSMPS

[These amendments are to the Final SUSMP, as published March 8, 2000]

Page 3 of 25

First full paragraph:

All **discretionary development and redevelopment** projects that fall into one of ~~seven~~ **the following** categories are identified in the Los Angeles County MS4 Permit as requiring subject to these SUSMPs. These categories are:

- Single-family Hillside Residences
- 100,000 Square Foot Commercial Developments
- Automotive Repair Shops
- Retail Gasoline Outlets
- Restaurants
- Home Subdivisions with 10 to 99 housing units
- Home Subdivisions with 100 or more housing units
- **Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff**

Second full paragraph:

~~The Regional Board Executive Officer has designated two additional categories subject to SUSMP requirements for the Los Angeles County MS4 Permit. These categories are:~~

- ~~• Location within or directly adjacent to or discharging directly to an environmentally sensitive area, and~~
- ~~• Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff~~

Fourth full paragraph:

Permittees shall amend codes, ~~if necessary,~~ not later than ~~September 8, 2000~~ **January 15, 2001**, to give legal effect to the SUSMP requirements. The SUSMP requirements for projects identified herein shall take effect not later than ~~October 8, 2000~~ **February 15, 2001**.

Page 4 of 25

Delete definition of "Environmentally Sensitive Area"

Revise Definition of "Redevelopment":

“Redevelopment” means, on an already developed site, the creation or addition of at least 5,000 square feet of impervious surfaces ~~or the creation or addition of fifty percent or more of impervious surfaces or the making of improvements to fifty percent or more of the existing structure~~. Redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. **Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to these SUSMPs, the Design Standards apply only to the addition, and not to the entire development.**

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Add to “Limited Exclusion”: Retail Gasoline Outlets

Page 15 of 25

Delete the first full paragraph (storm water mitigation funding)

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2001- 15

In the Matter of the Petitions of

**BUILDING INDUSTRY ASSOCIATION OF SAN DIEGO COUNTY
AND
WESTERN STATES PETROLEUM ASSOCIATION**

For Review Of Waste Discharge Requirements Order No. 2001-01
for Urban Runoff from San Diego County
[NPDES No. CAS0108758]
Issued by the
California Water Quality Control Board,
San Diego Region

SWRCB/OCC FILES A-1362, A-1362(a)

BY THE BOARD:

On February 21, 2001, the San Diego Regional Water Quality Control Board (Regional Water Board) issued a revised national pollutant discharge elimination system (NPDES) permit in Order No. 2001-01 (permit) to the County of San Diego (County), the 18 incorporated cities within the County, and the San Diego Unified Port District. The permit covers storm water discharges from municipal separate storm sewer systems (MS4) throughout the County. The permit is the second MS4 permit issued for the County, although the first permit was issued more than ten years earlier.¹

¹ NPDES permits generally expire after five years, but can be extended administratively where the Regional Water Board is unable to issue a new permit prior to the expiration date. As the record in this matter amply demonstrates, the Regional Water Board engaged in an extensive process of issuing draft permits, accepting comments, and holding workshops and hearings since at least 1995.

The permit includes various programmatic and planning requirements for the permittees, including construction and development controls, controls on municipal activities, controls on runoff from industrial, commercial, and residential sources, and public education. The types of controls and requirements included in the permit are similar to those in other MS4 permits, but also reflect the expansion of the storm water program since the first MS4 permit was adopted for San Diego County 11 years ago.²

On March 23, 2001, the State Water Resources Control Board (State Water Board or Board) received petitions for review of the permit from the Building Industry Association of San Diego County (BIA) and from the Western States Petroleum Association (WSPA).³ The petitions are legally and factually related, and have therefore been consolidated for purposes of review.⁴ None of the municipal dischargers subject to the permit filed a petition, nor did they file responses to the petitions.

I. BACKGROUND

MS4 permits are adopted pursuant to Clean Water Act section 402(p). This federal law sets forth specific requirements for permits for discharges from municipal storm sewers. One of the requirements is that permits "shall require controls to reduce the discharge of

² For a discussion of the evolution of the storm water program, consistent with guidance from the United States Environmental Protection Agency (U.S. EPA), see Board Order WQ 2000-11.

³ On March 23, the State Water Board also received brief letters from the Ramona Chamber of Commerce, the North San Diego County Association of Realtors, the San Diego County Apartment Association, the National Association of Industrial and Office Properties, and the California Building Industry Association. All of these letters state that they are "joining in" the petition filed by BIA. None of the letters contain any of the required information for petitions, which is listed at Cal. Code of Regs., tit. 23, section 2050. These letters will be treated as comments on the BIA petition. To the extent the authors intended the letters be considered petitions, they are dismissed.

⁴ Cal. Code of Regs., tit. 23, section 2054.

pollutants to the maximum extent practicable [MEP].” States establish appropriate requirements for the control of pollutants in the permits.

This Board very recently reviewed the need for controls on urban runoff in MS4 permits, the emphasis on best management practices (BMPs) in lieu of numeric effluent limitations, and the expectation that the level of effort to control urban runoff will increase over time.⁵ We pointed out that urban runoff is a significant contributor of impairment to waters throughout the state, and that additional controls are needed. Specifically, in Board Order WQ 2000-11 (hereinafter, LA SUSMP order), we concluded that the Los Angeles Regional Water Board acted appropriately in determining that numeric standards for the design of BMPs to control runoff from new construction and redevelopment constituted controls to the MEP.⁶

The San Diego permit incorporates numeric design standards for runoff from new construction and redevelopment similar to those considered in the LA SUSMP order.⁷ In addition, the permit addresses programmatic requirements in other areas. The LA SUSMP order was a precedential decision,⁸ and we will not reiterate our findings and conclusions from that decision.⁹

⁵ Board Order WQ 2000-11.

⁶ As explained in that Order, numeric design standards are not the same as numeric effluent limitations. While BIA contends that the permit under review includes numeric effluent limitations, it does not. A numeric design standard only tells the dischargers how much runoff must be treated or infiltrated; it does not establish numeric effluent limitations proscribing the quality of effluent that can be discharged following infiltration or treatment.

⁷ The San Diego permit also includes provisions that are different from those approved in the LA SUSMP Order, but which were not the subject of either petition. Such provisions include the inclusion of non-discretionary projects. We do not make any ruling in this Order on matters that were not addressed in either petition.

⁸ Government Code section 11425.60; State Board Order WR 96-1 (Lagunitas Creek), at footnote 11.

⁹ BIA restates some of the issues this Board considered in the LA SUSMP order. For instance, BIA contends that it is inappropriate for the permit to regulate erosion control. While this argument was not specifically addressed in our prior Order, it is obvious that the most serious concern with runoff from construction is the potential for increased erosion. It is absurd to contend that the permit should have ignored this impact from urban runoff.

The petitioners make numerous contentions, mostly concerning requirements that they claim the dischargers will not be able to, or should not be required to, comply with. We note that none of the dischargers has joined in these contentions. We further note that BIA raises contentions that were already addressed in the LA SUSMP order. In this Order, we have attempted to glean from the petition issues that are not already fully addressed in Board Order Board Order WQ 2000-11, and which may have some impact on BIA and its members. WSPA restated the contentions it made in the petition it filed challenging the LA SUSMP order. We will not address those contentions again.¹⁰ But we will address whether the Regional Water Board followed the precedent established there as it relates to retail gasoline outlets.¹¹

¹⁰ On November 8, 2001, following the October 31 workshop meeting that was held to discuss the draft order, BIA submitted a "supplemental brief" that includes many new contentions raised for the first time. (Interested persons who were not petitioners filed comments on the draft order asking the State Water Board to address some of these.) The State Water Board will not address these contentions, as they were not timely raised. (Wat. Code § 13320; Cal. Code of Regs., tit. 23, § 2050(a).) Specific contentions that are not properly subject to review under Water Code section 13320 are objections to findings 16, 17, and 38 of the permit, the contention that permit provisions constitute illegal unfunded mandates, challenges to the permit's inspection and enforcement provisions, objections to permit provisions regarding construction sites, the contention that post-construction requirements should be limited to "discretionary" approvals, the challenge to the provisions regarding local government compliance with the California Environmental Quality Act, and contentions regarding the term "discharge" in the permit. BIA did not meet the legal requirements for seeking review of these portions of the permit.

¹¹ On November 8, 2001, the State Water Board received eight boxes of documents from BIA, along with a "Request for Entry of Documents into the Administrative Record." BIA failed to comply with Cal. Code of Regs., tit. 23, section 2066(b), which requires such requests be made "prior to or during the workshop meeting." The workshop meeting was held on October 31, 2001. The request will therefore not be considered. BIA also objected in this submittal that the Regional Water Board did not include these documents in its record. The Regional Water Board's record was created at the time the permit was adopted, and was submitted to the State Water Board on June 11, 2001. BIA's objection is not timely.

II. CONTENTIONS AND FINDINGS¹²

Contention: BIA contends that the discharge prohibitions contained in the permit are “absolute” and “inflexible,” are not consistent with the standard of “maximum extent practicable” (MEP), and financially cannot be met.

Finding: The gist of BIA’s contention concerns Discharge Prohibition A.2, concerning exceedance of water quality objectives for receiving waters: “Discharges from MS4s which cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited.” BIA generally contends that this prohibition amounts to an inflexible “zero contribution” requirement.

BIA advances numerous arguments regarding the alleged inability of the dischargers to comply with this prohibition and the impropriety of requiring compliance with water quality standards in municipal storm water permits. These arguments mirror arguments made in earlier petitions that required compliance with water quality objectives by municipal storm water permittees. (See, e.g., Board Orders WQ 91-03, WQ 98-01, and WQ 99-05.) This Board has already considered and upheld the requirement that municipal storm water discharges must not cause or contribute to exceedances of water quality objectives in the receiving water. We adopted an iterative procedure for complying with this requirement, wherein municipalities must report instances where they cause or contribute to exceedances, and then must review and improve BMPs so as to protect the receiving waters. The language in the permit in Receiving

¹² This Order does not address all of the issues raised by the petitioners. The Board finds that the issues that are not addressed are insubstantial and not appropriate for State Water Board review. (See *People v. Barry* (1987) 194 Cal.App.3d 158 [239 Cal.Rptr. 349]; Cal. Code Regs., tit. 23, § 2052.) We make no determination as to whether we will address the same or similar issues when raised in future petitions.

Water Limitation C.1 and 2 is consistent with the language required in Board Order WQ 99-05, our most recent direction on this issue.¹³

While the issue of the propriety of requiring compliance with water quality objectives has been addressed before in several orders, BIA does raise one new issue that was not addressed previously. In 1999, the Ninth Circuit Court of Appeals issued an opinion addressing whether municipal storm water permits must require “strict compliance” with water quality standards.¹⁴ (*Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159.) The court in *Browner* held that the Clean Water Act provisions regarding storm water permits do not require that municipal storm-sewer discharge permits ensure strict compliance with water quality standards, unlike other permits.¹⁵ The court determined that: “Instead, [the provision for municipal storm water permits] *replaces* the requirements of [section 301] with the requirement that municipal storm-sewer dischargers ‘reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator . . . determines appropriate for the control of such pollutants.’” (191 F.3d at 1165.) The court further held that the Clean Water Act does grant the permitting agency discretion to determine what pollution controls are appropriate for municipal storm water discharges. (*Id.* at 1166.) Specifically, the court stated

¹³ In addition to Discharge Prohibition A.2, quoted above, the permit includes Receiving Water Limitation C.1, with almost identical language: “Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.” Receiving Water Limitation C.2 sets forth the iterative process for compliance with C.1, as required by Board Order WQ 99-05.

¹⁴ “Water quality objectives” generally refers to criteria adopted by the state, while “water quality standards” generally refers to criteria adopted or approved for the state by the U.S. EPA. Those terms are used interchangeably for purposes of this Order.

¹⁵ Clean Water Act § 301(b)(1)(C) requires that most NPDES permits require strict compliance with quality standards.

that U.S. EPA had the authority either to require "strict compliance" with water quality standards through the imposition of numeric effluent limitations, or to employ an iterative approach toward compliance with water quality standards, by requiring improved BMPs over time. (*Id.*) The court in *Browner* upheld the EPA permit language, which included an iterative, BMP-based approach comparable to the language endorsed by this Board in Order WQ 99-05.

In reviewing the language in this permit, and that in Board Order WQ 99-05, we point out that our language, similar to U.S. EPA's permit language discussed in the *Browner* case, does not require strict compliance with water quality standards. Our language requires that storm water management plans be designed to achieve compliance with water quality standards. Compliance is to be achieved over time, through an iterative approach requiring improved BMPs. As pointed out by the *Browner* court, there is nothing inconsistent between this approach and the determination that the Clean Water Act does not mandate strict compliance with water quality standards. Instead, the iterative approach is consistent with U.S. EPA's general approach to storm water regulation, which relies on BMPs instead of numeric effluent limitations.

It is true that the holding in *Browner* allows the issuance of municipal storm water permits that limit their provisions to BMPs that control pollutants to the maximum extent practicable (MEP), and which do not require compliance with water quality standards. For the reasons discussed below, we decline to adopt that approach. The evidence in the record before us is consistent with records in previous municipal permits we have considered, and with the data we have in our records, including data supporting our list prepared pursuant to Clean Water Act section 303(d). Urban runoff is causing and contributing to impacts on receiving waters throughout the state and impairing their beneficial uses. In order to protect beneficial uses and to achieve compliance with water quality objectives in our streams, rivers, lakes, and the ocean, we

must look to controls on urban runoff. It is not enough simply to apply the technology-based standards of controlling discharges of pollutants to the MEP; where urban runoff is causing or contributing to exceedances of water quality standards, it is appropriate to require improvements to BMPs that address those exceedances.

While we will continue to address water quality standards in municipal storm water permits, we also continue to believe that the iterative approach, which focuses on timely improvement of BMPs, is appropriate. We will generally not require "strict compliance" with water quality standards through numeric effluent limitations and we will continue to follow an iterative approach, which seeks compliance over time.¹⁶ The iterative approach is protective of water quality, but at the same time considers the difficulties of achieving full compliance through BMPs that must be enforced throughout large and medium municipal storm sewer systems.¹⁷

We have reviewed the language in the permit, and compared it to the model language in Board Order WQ 99-05. The language in the Receiving Water Limitations is virtually identical to the language in Board Order WQ 99-05. It sets a limitation on discharges that cause or contribute to violation of water quality standards, and then it establishes an iterative approach to complying with the limitation. We are concerned, however, with the language in Discharge Prohibition A.2, which is challenged by BIA. This discharge prohibition is similar to the Receiving Water Limitation, prohibiting discharges that cause or contribute to exceedance of

¹⁶ Exceptions to this general rule are appropriate where site-specific conditions warrant. For example, the Basin Plan for the Lake Tahoe basin, which protects an outstanding national resource water, includes numeric effluent limitations for storm water discharges.

¹⁷ While BIA argues that the permit requires "zero contribution" of pollutants in runoff, and "in effect" contains numeric effluent limitations, this is simply not true. The permit is clearly BMP-based, and there are no numeric effluent limitations. BIA also claims that the permit will require the construction of treatment plants for storm water similar to the publicly-owned treatment works for sanitary sewage. There is no basis for this contention; there is no requirement in the permit to treat all storm water. The emphasis is on BMPs.

water quality objectives. The difficulty with this language, however, is that it is not modified by the iterative process. To clarify that this prohibition also must be complied with through the iterative process, Receiving Water Limitation C.2 must state that it is also applicable to Discharge Prohibition A.2. The permit, in Discharge Prohibition A.5, also incorporates a list of Basin Plan prohibitions, one of which also prohibits discharges that are not in compliance with water quality objectives. (See, Attachment A, prohibition 5.) Language clarifying that the iterative approach applies to that prohibition is also necessary.¹⁸

BIA also objects to Discharge Prohibition A.3, which appears to require that treatment and control of discharges must always occur prior to entry into the MS4: "Discharges into and from MS4s containing pollutants which have not been reduced to the [MEP] are prohibited."¹⁹ An NPDES permit is properly issued for "discharge of a pollutant" to waters of the United States.²⁰ (Clean Water Act § 402(a).) The Clean Water Act defines "discharge of a pollutant" as an "addition" of a pollutant to waters of the United States from a point source. (Clean Water Act section 502(12).) Section 402(p)(3)(B) authorizes the issuance of permits for discharges "from municipal storm sewers."

We find that the permit language is overly broad because it applies the MEP standard not only to discharges "from" MS4s, but also to discharges "into" MS4s. It is certainly

¹⁸ The iterative approach is not necessary for all Discharge Prohibitions. For example, a prohibition against pollution, contamination or nuisance should generally be complied with at all times. (See, Discharge Prohibition A.1.) Also, there may be discharge prohibitions for particularly sensitive water bodies, such as the prohibition in the Ocean Plan applicable to Areas of Special Biological Significance.

¹⁹ Discharge Prohibition A.1 also refers to discharges into the MS4, but it only prohibits pollution, contamination, or nuisance that occurs "in waters of the state." Therefore, it is interpreted to apply only to discharges to receiving waters.

²⁰ Since NPDES permits are adopted as waste discharge requirements in California, they can more broadly protect "waters of the state," rather than being limited to "waters of the United States." In general, the inclusion of "waters (footnote continued)

true that in most instances it is more practical and effective to prevent and control pollution at its source. We also agree with the Regional Water Board's concern, stated in its response, that there may be instances where MS4s use "waters of the United States" as part of their sewer system, and that the Board is charged with protecting all such waters. Nonetheless, the specific language in this prohibition too broadly restricts all discharges "into" an MS4, and does not allow flexibility to use regional solutions, where they could be applied in a manner that fully protects receiving waters.²¹ It is important to emphasize that dischargers into MS4s continue to be required to implement a full range of BMPs, including source control. In particular, dischargers subject to industrial and construction permits must comply with all conditions in those permits prior to discharging storm water into MS4s.

Contention: State law requires the adoption of wet weather water quality standards, and the permit improperly enforces water quality standards that were not specifically adopted for wet weather discharges.

Finding: This contention is clearly without merit. There is no provision in state or federal law that mandates adoption of separate water quality standards for wet weather conditions. In arguing that the permit violates state law, BIA states that because the permit applies the water quality objectives that were adopted in its Basin Plan, and those objectives were not specifically adopted for wet weather conditions only, the Regional Water Board violated

of the state" allows the protection of groundwater, which is generally not considered to be "waters of the United States."

²¹ There are other provisions in the permit that refer to restrictions "into" the MS4. (See, e.g., Legal Authority D.1.) Those provisions are appropriate because they do not apply the MEP standard to the permittees, but instead require the permittees to demand appropriate controls for discharges into their system. For example, the federal regulations require that MS4s have a program "to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system" (40 C.F.R. § 122.26(d)(2)(iv)(D).)

Water Code section 13241. These allegations appear to challenge water quality objectives that were adopted years ago. Such a challenge is clearly inappropriate as both untimely, and because Basin Plan provisions cannot be challenged through the water quality petition process. (See Water Code § 13320.) Moreover, there is nothing in section 13241 that supports the claim that Regional Water Boards must adopt separate wet weather water quality objectives. Instead, the Regional Water Board's response indicates that the water quality objectives were based on all water conditions in the area. There is nothing in the record to support the claim that the Regional Water Board did not in fact consider wet weather conditions when it adopted its Basin Plan. Finally, Water Code section 13263 mandates the Regional Water Board to implement its Basin Plan when adopting waste discharge requirements. The Regional Water Board acted properly in doing so.

BIA points to certain federal policy documents that authorize states to promulgate water quality standards specific to wet-weather conditions.²² Each Regional Water Board considers revisions to its Basin Plan in a triennial review. That would be the appropriate forum for BIA to make these comments.

Contention: BIA contends that the permit improperly classifies urban runoff as "waste" within the meaning of the Water Code.

Finding: BIA challenges Finding 2, which states that urban runoff is a waste, as defined in the Water Code, and that it is a "discharge of pollutants from a point source" under the federal Clean Water Act. BIA contends that the legislative history of section 13050(d) supports

²² These documents do not support the claim that U.S. EPA and the Clinton Administration indicated that the absence of such regulations "is a major problem that needs to be addressed," as claimed in BIA's Points and Authorities, at page 18.

its position that "waste" should be interpreted to exclude urban runoff. The Final Report of the Study Panel to the California State Water Resources Control Board (March, 1969) is the definitive document describing the legislative intent of the Porter-Cologne Water Quality Control Act. In discussing the definition of "waste," this document discusses its broad application to "current drainage, flow, or seepage into waters of the state of harmful concentrations" of materials, including eroded earth and garbage.

As we stated in Board Order WQ 95-2, the requirement to adopt permits for urban runoff is undisputed, and Regional Water Boards are not required to obtain any information on the impacts of runoff prior to issuing a permit. (At page 3.) It is also undisputed that urban runoff contains "waste" within the meaning of Water Code section 13050(d), and that the federal regulations define "discharge of a pollutant" to include "additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man." (40 C.F.R. § 122.2.) But it is the waste or pollutants in the runoff that meet these definitions of "waste" and "pollutant," and not the runoff itself.²³ The finding does create some confusion, since there are discharge prohibitions that have been incorporated into the permit that broadly prohibit the discharge of "waste" in certain circumstances. (See Attachment A to the permit.) The finding will therefore be amended to state that urban runoff contains waste and pollutants.

Contention: BIA contends that the Regional Water Board violated California Environmental Quality Act (CEQA).

²³ The Regional Water Board is appropriately concerned not only with pollutants in runoff but also the volume of runoff, since the volume of runoff can affect the discharge of pollutants in the runoff. (See Board Order WQ 2000-11, at page 5.)

Finding: As we have stated in several prior orders, the provisions of CEQA requiring adoption of environmental documents do not apply to NPDES permits.²⁴ BIA contends that the exemption from CEQA contained in section 13389 applies only to the extent that the specific provisions of the permit are required by the federal Clean Water Act. This contention is easily rejected without addressing whether federal law mandated all of the permit provisions. The plain language of section 13389 broadly exempts the Regional Water Board from the requirements of CEQA to prepare environmental documents when adopting “any waste discharge requirement” pursuant to Chapter 5.5 (§§ 13370 et seq., which applies to NPDES permits).²⁵ BIA cites the decision in *Committee for a Progressive Gilroy v. State Water Resources Control Board* (1987) 192 Cal.App.3d 847. That case upheld the State Water Board’s view that section 13389 applies only to NPDES permits, and not to waste discharge requirements that are adopted pursuant only to state law. The case did not concern an NPDES permit, and does not support BIA’s argument.

Contention: WSPA contends that the Regional Water Board did not follow this Board’s precedent for retail gasoline outlets (RGOs) established in the LA SUSMP order.

Finding: In the LA SUSMP order, this Board concluded that construction of RGOs is already heavily regulated and that owners may be limited in their ability to construct infiltration facilities. We also noted that, in light of the small size of many RGOs and the proximity to underground tanks, it might not always be feasible or safe to employ treatment methodologies. We directed the Los Angeles Regional Water Board to mandate that RGOs

²⁴ Water Code section 13389; see, e.g., Board Order WQ 2000-11.

²⁵ The exemption does have an exception for permits for “new sources” as defined in the Clean Water Act, which is not applicable here.

employ the BMPs listed in a publication of the California Storm Water Quality Task Force. (*Best Management Practice Guide – Retail Gasoline Outlets* (March 1997).) We also concluded that RGOs should not be subject to the BMP design standards at this time. Instead, we recommended that the Regional Water Board undertake further consideration of a threshold relative to size of the RGO, number of fueling nozzles, or some other relevant factor. The LA SUSMP order did not preclude inclusion of RGOs in the SUSMP design standards, with proper justification, when the permit is reissued.

The permit adopted by the Regional Water Board did not comply with the directions we set forth in the LA SUSMP order for the regulation of RGOs. The permit contains no findings specific to the issues discussed in our prior order regarding RGOs, and includes no threshold for inclusion of RGOs in SUSMPs. Instead, the permit requires the dischargers to develop and implement SUSMPs within one year that include requirements for “Priority Development Project Categories,” including “retail gasoline outlets.” While other priority categories have thresholds for their inclusion in SUSMPs, the permit states: “Retail Gasoline Outlet is defined as any facility engaged in selling gasoline.”²⁶

The Regional Water Board responded that it did follow the directions in the LA SUSMP order. First, it points to findings that vehicles and pollutants they generate impact receiving water quality. But the only finding that even mentions RGOs is finding 4, which simply lists RGOs among the other priority development project categories as land uses that generate more pollutants. The Regional Water Board staff also did state some justifications for the inclusion of RGOs in two documents. The Draft Fact Sheet explains that RGOs contribute

²⁶ Permit at F.1.b(2)(a)(x).

pollutants to runoff, and opines that there are appropriate BMPs for RGOs. The staff also prepared another document after the public hearing, which was distributed to Board Members prior to their vote on the permit, and which includes similar justifications and references to studies.²⁷ The LA SUSMP order called for some type of threshold for inclusion of RGOs in SUSMPs. The permit does not do so. Also, justifications for permit provisions should be stated in the permit findings or the final fact sheet, and should be subject to public review and debate.²⁸ The discussion in the document submitted after the hearing did not meet these criteria. There was some justification in the "Draft Fact Sheet," but the fact sheet has not been finalized.²⁹ In light of our concerns over whether SUSMP sizing criteria should apply to RGOs, it was incumbent on the Regional Water Board to justify the inclusion of RGOs in the permit findings or in a final fact sheet, and to consider an appropriate threshold, addressing the concerns we stated. The Regional Water Board also responded that when the dischargers develop the SUSMPs, the dischargers might add specific BMPs and a threshold as directed in the LA SUSMP order. But the order specifically directed that any threshold, and the justification therefore, should be included in the permit. The Regional Water Board did not comply with these directions.

²⁷ See "Comparison Between Tentative Order No. 2001-01 SUSMP Requirements and LARWQCB SUSMP Requirements (as Supported by SWRCB Order WQ 2000-11)."

²⁸ See 40 C.F.R. sections 124.6(e) and 124.8.

²⁹ U.S. EPA regulations require that there be a fact sheet accompanying the permit. (40 C.F.R. § 124.8.) The record contains only a draft fact sheet, which was never published or distributed in final form. The Regional Water Board should finalize the fact sheet, accounting for any revisions made in the final permit, and publish it on its web site as a final document.

III. CONCLUSIONS

Based on the discussion above, the Board concludes that:

1. The Regional Water Board appropriately required compliance with water quality standards and included requirements to achieve reduction of pollutants to the maximum extent practicable. The permit must be clarified so that the reference to the iterative process for achieving compliance applies not only to the receiving water limitation, but also to the discharge prohibitions that require compliance with water quality standards. The permit should also be revised so that it requires that MEP be achieved for discharges "from" the municipal sewer system, and for discharges "to" waters of the United States, but not for discharges "into" the sewer system.
2. The Regional Water Board was not required to adopt wet-weather specific water quality objectives.
3. The Regional Water Board inappropriately defined urban runoff as "waste."
4. The Regional Water Board did not violate the California Environmental Quality Act.
5. The permit will be revised to delete retail gasoline outlets from the Priority Development Project Categories for Standard Urban Storm Water Mitigation Plans. The Regional Water Board may consider adding retail gasoline outlets, upon inclusion of appropriate findings and a threshold describing which outlets are included in the requirements.

IV. ORDER

IT IS HEREBY ORDERED that the Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems in San Diego County (Order No. 2001-01) are revised as follows:

1. Part A.3: The words "into and" are deleted.
2. Part C.2: Throughout the first paragraph, the words ", Part A.2, and Part A.5 as it applies to Prohibition 5 in Attachment A" shall be inserted following "Part C.1."
3. Finding 2: Revise the finding to read: **URBAN RUNOFF CONTAINS "WASTE" AND "POLLUTANTS"**: Urban runoff contains waste, as defined in the California Water Code, and pollutants, as defined in the federal Clean Water Act, and adversely affects the quality of the waters of the State.
4. Part F.1.b(2)(a): Delete section "x."

In all other respects the petitions are dismissed.

CERTIFICATION

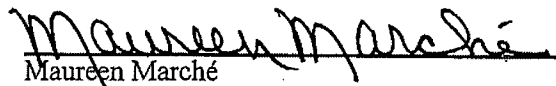
The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 15, 2001.

AYE: Arthur G. Baggett, Jr.
Peter S. Silva
Richard Katz

NO: None

ABSENT: None

ABSTAIN: None


Maureen Marché
Clerk to the Board

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2006-0012

In the Matter of the Petition of

BOEING COMPANY

For Review of Waste Discharge Requirements (WDR) Orders
R4-2004-0111, R4-2006-0008, and R4-2006-0036 for the
Santa Susana Field Laboratory
Issued by the
California Regional Water Quality Control Board,
Los Angeles Region

SWRCB/OCC FILES A-1653 AND A-1737

BY THE BOARD:

The Boeing Company (Boeing) operates the Santa Susana Field Laboratory (SSFL) in Ventura County.¹ The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) has regulated wastewater discharges from SSFL to waters of the United States since at least 1992.² The regulated discharges include storm water runoff, discharges from groundwater remediation systems, industrial wastewater from ongoing operations such as engine test stands, and domestic wastewater from two sewage treatment plants.

On July 1, 2004, the Los Angeles Water Board re-issued a permit to Boeing for discharges from SSFL. (Waste Discharge Requirements Order No. R4-2004-0111 (2004 Permit).) On August 2, 2004, Boeing filed a petition with the State Water Resources Control

¹ Boeing owns SSFL with the National Aeronautical Space Agency (NASA). The United States Department of Energy (DOE) also owns several buildings at the site. NASA and DOE are not named in the permit reviewed herein, and their participation is not an issue before us.

² Waste Discharge Requirements Order No. 92-092, adopted December 7, 1992. The permit was reissued in 1998 (1998 Permit). Waste Discharge Requirements Order No. 98-051, adopted June 29, 1998. This is a national pollutant discharges elimination system (NPDES) permit, No. CA0001309.

Board (State Water Board) challenging the 2004 Permit.³ (Our File No. A-1653.) Boeing requested that its petition be held in abeyance.⁴

On January 19, 2006, the Los Angeles Water Board modified the 2004 Permit, adding and revising the outfalls listed and the effluent limitations. (Waste Discharge Requirements Order No. R4-2006-0008; January 2006 Permit.) On February 21, 2006, Boeing filed a petition challenging the January 2006 Permit and the failure of the Los Angeles Water Board to adopt a Cease and Desist Order with a compliance schedule and interim effluent limitations. (Our File No. A-1737.) Boeing also asked the State Water Board to activate its 2004 petition, File No. A-1635. On March 9, 2006, the Los Angeles Water Board again revised Boeing's permit, this time adding additional effluent limitations. (Waste Discharge Requirements Order No. R4-2006-0036; March 2006 Permit.) On March 16, 2006, Boeing filed a petition challenging the March 2006 Permit.⁵ Boeing also requested a stay of various effluent limitations. The State Water Board denied the stay request in Order WQ 2006-0007.⁶

Many of Boeing's contentions concern the propriety and legality of numeric effluent limitations in the Permit. In particular, Boeing emphasizes that its discharges are largely storm water, and it points to the issues this Board faces as to whether to include numeric effluent limitations in storm water permits. As we will explain, the issues addressed in this Order are relevant only to a unique industrial operation subject to an individual NPDES permit. Our conclusions here do not apply to the issue of numeric effluent limitations for general permits

³ Committee to Bridge the Gap (CBG) also filed a petition challenging the permit. (Our File No. A-1653(a).) The State Water Board dismissed CBG's petition on February 14, 2005.

⁴ The State Water Board's regulations allow a petitioner to request its petition be held in abeyance. (California Code of Regulations (Cal. Code Regs.), tit. 23, § 2050, subd. (d).) When a petition challenging a permit is held in abeyance, the State Water Board does not act upon the petition until it is activated and the challenged permit remains in full force and effect. (*Ibid.*)

⁵ The March 16 petition was not assigned a separate file number, and instead is considered to be an amendment to File No. A-1737. All of the petitions filed by Boeing have been consolidated for purposes of review. (Cal. Code Regs., tit. 23, § 2054.) The 2004 Permit, as modified, is referred to as "the Permit." Where necessary, the different versions are referred to as the 2004 Permit, the January 2006 Permit, and the March 2006 Permit.

⁶ The State Water Board received the administrative record and responses to the petitions on May 15, 2006. Part of the record was a report Boeing submitted to the Los Angeles Water Board for its February 2006 meeting. CBG asks this Board to limit the use of that report. All portions of the record were before the Los Angeles Water Board in its actions and are appropriately part of our administrative record. On October 13, 2006, Boeing submitted a new report to the State Water Board and asks that it be considered a part of our administrative record. We decline to do so. That report was received long after the Los Angeles Water Board acted and only two weeks before the State Water Board issued its draft order in this matter. Moreover, Boeing refused to place its petitions in abeyance, which would have allowed time for the State Water Board to review the report and for interested persons to respond to the permit. (See, Cal. Code Regs., tit. 23, § 2050.6.) Boeing's request is denied.

regulating discharges of storm water from thousands of entities engaged in construction and industrial activities.

In this Order, the State Water Board upholds the Permit in most respects. We conclude that the Los Angeles Water Board acted properly in issuing the Permit and in including requirements more akin to a typical individual NPDES permit than the General Permit for Industrial Activities.⁷ We also conclude that the Permit includes appropriate monitoring requirements and sites. Moreover, we conclude that at least until Boeing submits a report of waste discharge describing its changed discharge, the Permit must continue to regulate many of the discharges from SSFL as commingled wastewater, rather than as storm water discharges. We also conclude Outfall 001 is duplicative with Outfall 011 and that Outfall 002 is duplicative with Outfall 018 for enforcement purposes. Only two of these outfalls should be regulated with numeric effluent limitations as compliance points. The numeric effluent limitations contained in the Permit were properly calculated and were properly based on the "reasonable potential" for discharges from SSFL to cause or contribute to exceedances of water quality standards and it is appropriate and proper for the Permit to retain these numeric effluent limitations. Finally, we conclude that the Los Angeles Water Board erred in failing to issue a cease and desist order (CDO), including a compliance schedule with interim effluent limitations, following a catastrophic fire at SSFL in September 2005. We will remand the Permit to the Los Angeles Water Board to make revisions consistent with this Order. The compliance schedule shall apply retroactively to the adoption of the January 2006 Permit.⁸

I. BACKGROUND

Boeing's SSFL is located at the top of Woolsey Canyon Road in Simi Hills. The site includes approximately 1500 acres of developed land and 1200 acres of undeveloped land. Industrial activities have occurred at the site for more than 50 years. These activities have included research, development, assembly, disassembly, and testing of rocket engines, missile components, and chemical lasers. There have also been nuclear reactors at SSFL, and the administrative record shows evidence of accidents with these reactors. As of the time the Permit was issued, Boeing activities that contributed to discharges, include rocket engine

⁷ General Permit for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (WQO No. 97-03-DWQ).

⁸ All contentions not discussed in this Order are not sufficiently substantial to warrant review. (See *People v. Barry* (1987) 194 Cal.App.3d 158; Cal. Code Regs., tit. 23, § 2052(a)(1).)

testing, fire suppression, pressure-testing of equipment to support rocket engine testing, domestic wastewater treatment, and contaminated groundwater treatment.

Boeing representatives have recently stated, including in testimony at the hearing on its stay request, that the only existing discharges from the site are storm water runoff. In particular, Boeing representatives state that it has stopped all rocket engine testing and will not resume testing, if at all, until it can remove all wastewater associated with testing from the site (presumably by trucking the wastewater offsite). In addition, they testified that the treatment plants (groundwater remediation and domestic sewage treatment) are no longer discharging at the site, but instead all wastewater is trucked away. There is nothing in the record to indicate that Boeing has submitted a report of waste discharge regarding these changes in its discharge or requested that the Permit be modified.⁹

Because of the historical activities at SSFL, the site is subject to remediation requirements pursuant to the Resource Conservation and Recovery Act of 1976 (RCRA).¹⁰ The lead agency for the RCRA cleanup is the California Department of Toxic Substances Control (DTSC). DTSC regulates nine closed surface impoundments. The site had radioactive waste that the United States Department of Energy (DOE) is responsible for decontaminating and decommissioning. Boeing still uses radioisotopes for calibrating radiation detectors and counting equipment, but there is no surface water discharge associated with these activities. There is surface runoff from throughout the site, including areas subject to RCRA cleanup. The record shows that there are instances where runoff from SSFL has been contaminated with, or has the potential to be contaminated with, constituents associated with the historical activities at the site and the RCRA remediation. For example, the catchment area of Outfall 004 is comprised of a landscape with surface soil contaminated with mercury and other constituents from the former Sodium Reactor Experiment site. Until the contaminated soil is removed (a likely final remediation solution for this area), Boeing has covered the soil with an impermeable cover and, at the bottom of the catchment, implemented BMPs to treat the runoff. If the cover were compromised, discharges from the site could enter surface waters. There are also constituents that have been detected in runoff from the site that are associated with historic

⁹ Dischargers must submit a report of waste discharge for any material change or proposed change in the character, location, or volume of their discharge. (Wat. Code, § 13260, subdivision (c).) The discharges characterized in the Permit generally occur only when there is wet weather runoff from the site. Thus, it is within Boeing's knowledge and control whether it will ensure that process water is not commingled with storm water in the future.

¹⁰ 42 United States Code Annotated (U.S.C.A.) §§ 6901 et seq.

activities. For example, perchlorate, a chemical associated with rocket propellant testing, has been detected at an outfall near the rocket propellant testing area.

SSFL is situated in the Simi Hills. Because of its location and topography, and the large size of the facility, there is runoff from the site to several watersheds. Most of the runoff flows to Bell Creek, which is tributary to the Los Angeles River. There is also runoff into various drainages of Arroyo Simi and to Runkel, Dayton, and Woolsey Canyons. The Permit establishes eighteen outfalls.¹¹ Outfalls 001 and 002 are at the southerly perimeter of the SSFL, and approximately sixty percent of the runoff from the facility discharges through these two outfalls, which lead to Bell Creek, and then to the Los Angeles River. Outfall 008 discharges to Happy Valley, and ultimately to Bell Creek and the Los Angeles River. Discharges through Outfalls 003, 004, 005, 006, 007, 009, and 010 flow to small watersheds to the northwest of SSFL. These are not tributary to the Los Angeles River. Outfalls 011, 012, 013, 014, 015, 016, 017, and 018 each are sited near areas of specific activities on SSFL, including the two domestic sewage treatment plants, the groundwater treatment plant, and the rocket engine test stand. Outfalls 012-017 each discharge to waters that flow through Outfalls 011 or 018, which in turn flow through Outfalls 001 and 002, respectively. There are several points that are important to our deliberations regarding these outfalls: (1) Outfalls 001-010 are each situated along the perimeter of SSFL, while Outfalls 011-018 are situated in the interior of the site and discharge through perimeter outfalls; (2) Outfalls 001, 002, and 011-018 are authorized to discharge commingled storm water, industrial process water (from groundwater treatment and rocket engine testing) and domestic wastewater (from the sewage treatment plants); and (3) Outfalls 003-010 are the only outfalls designated in the Permit as discharging only storm water runoff.

The Los Angeles Water Board initially adopted the Permit that Boeing now challenges in July 2004. It amended the Permit in January and March 2006, adding and revising effluent limitations each time. In January 2006, the Los Angeles Water Board considered but refused to adopt a CDO, which would have included a time schedule and interim effluent limitations. Boeing filed a petition challenging the July 2004 Permit, but did not seek active review of its challenge to the Permit until February 21, 2006, when Boeing also challenged the January modification.¹² Boeing also challenged the failure to adopt the CDO.

¹¹ These are designated Outfalls 001 through 018.

¹² It later challenged the March modification also.

In addition to the Permit modifications, which generally made the Permit more stringent, there was also a significant physical event at SSFL that impacted permit compliance. Beginning on September 28, 2005, the Topanga Fire swept through the site and burned approximately seventy percent of the site. The fire destroyed numerous plants that had served as vegetative cover to control runoff. At the time, BMPs Boeing employed to minimize pollutants in runoff were largely vegetative cover, and the fire destroyed most of this cover. The fire also resulted in ash deposition throughout the site, the result of burned material from both the site and adjacent areas, which contained contaminants regulated by the Permit. Since the fire, Boeing has been engaged in stabilizing and restoring vegetative cover and also in building new structural BMPs at the site.

II. CONTENTIONS AND FINDINGS¹³

Contention: Boeing contends that most, if not all, of its discharge is storm water runoff and that it should be regulated in a similar manner as the State Water Board's General Permit for Industrial Activities.

Finding: The discharges from SSFL are unusual in many respects. SSFL is a very large industrial site in a remote area, with no other industrial sites nearby. It occupies a large area on hillsides, with runoff flowing into a number of different watersheds. There are vast areas of historical contamination and development, and also large areas of open space and native vegetation. Calculations show that SSFL has the potential, in a 24-hour 10-year storm, to discharge an estimated 272 million gallons of storm water runoff. It is the subject of ongoing RCRA cleanup and groundwater remediation. While greatly reduced from its peak activity, there are still ongoing industrial activities occurring. While it originally was situated in a remote location, there are now many residential developments nearby SSFL. The Permit allows Boeing to discharge not only storm water runoff from the site, but also industrial process water, wastewater from groundwater treatment facilities, and domestic wastewater from sewage treatment plants.

The conditions described above make SSFL a unique site, especially because of its size, the degree of historical contamination, and the site topography that results in large

¹³ Boeing included various interrelated contentions in its 2004 Petition, its February 2006 Petition, and its March 2006 Petition. Each petition essentially restated and revised the grounds for the petition. Each petition also included a statement of points and authorities, which also stated the bases for the petition somewhat differently than the petition itself. The statement of contentions herein is an effort to summarize and articulate these various arguments, while not restating verbatim each of the contentions listed in the different documents.

amounts of runoff during storm events. The Permit regulates both storm water-only and commingled storm water, domestic, and industrial process water discharges. As will be described below, the legal requirements for the regulation of storm water-only discharges vary from those for the regulation of process water discharges. Wastewater that commingles storm water and process water is subject to the legal requirements for industrial process water. The Permit was based on Boeing's request, through its report of waste discharge, for authorization to discharge process water and storm water from several outfalls at SSFL. In its papers and testimony, Boeing states that it is no longer discharging process water from these facilities. If that is so, in order for its permit to be revised accordingly, it must file a report of waste discharge describing this change in its discharge.¹⁴

Eight of the eighteen outfalls at SSFL are storm water-only outfalls:

Outfalls 003-010. These eight outfalls are all "perimeter" outfalls—flows through these outfalls leave SSFL through different watersheds. (The only other perimeter outfalls—Outfalls 001 and 002—receive all of the commingled flows and together discharge approximately sixty percent of the total flows from SSFL.) While these eight outfalls are designated as storm water-only, the record shows that they each have a significant potential to discharge water contaminated by the historical practices and remediation activities at SSFL. Each of these outfalls is associated with areas of the site with significant historical activities. Outfalls 003-007 receive runoff from past and existing radiological facilities: runoff to Outfall 003 is from the Radioactive Material Handling Facility, runoff to Outfall 004 is from the Sodium Reactor Experiment, runoff to Outfall 005 is from Sodium Burn Pit 1, runoff to Outfall 006 is from Sodium Burn Pit 2, and runoff to Outfall 007 is from Building 100. Outfall 008, which discharges to Happy Valley, is located near facilities that formerly used perchlorate, and that constituent has been found in the runoff. Outfall 009 receives WS-13 drainage and runoff to Outfall 010 is from Building 203, and these outfalls were added to the Permit based on monitoring in the areas.¹⁵ There are numerous other operation areas at SSFL that do not have individual outfalls specifically assigned to them. Generally, the outfalls listed in the Permit are associated with operations over which the

¹⁴ During the proceedings on the stay request, Boeing's attorney stated that the only process water currently discharged is well purge water, and that change in discharge would be raised to the Los Angeles Water Board when the Permit is modified or reissued. In any event, the Permit as adopted does regulate both process water and storm water, some of it commingled, and the evidence shows that Boeing requested such a permit.

¹⁵ The specific activities and runoff potential are described in detail, *infra*.

Los Angeles Water Board, rather than DTSC, is the lead agency.¹⁶ The outfalls along the perimeter of SSFL, however, do capture all of the runoff that is known to have the potential to contain contaminants associated with industrial activities.

Boeing argues that its site is comparable to other sites regulated by the General Permit for Industrial Activities. It contends that the Los Angeles Water Board was required to follow the assumptions contained in that permit, including the absence of numeric effluent limitations therein. We disagree with this premise.

SSFL is a unique site warranting thorough and detailed regulation. It is not at all the same as a typical facility subject to the General Permit for Industrial Activities. Moreover, it is not permitted as a storm water-only site, regardless of whether the vast majority of the runoff is storm water, rather than process water. The federal Clean Water Act requires that all discharges of wastewater containing pollutants from industrial sites must comply with the technology-based requirements of best practicable control technology currently available (BCT) and best available technology economically achievable (BAT) and with any more stringent limitations necessary to meet water quality standards. (33 U.S.C.A. § 1311(b).)¹⁷ These same standards apply to discharges of storm water associated with industrial activities. (CWA § 402(p)(3)(A).)¹⁸ While the same legal standards in section 301(b) apply to both industrial process water and industrial storm water, the decision whether to include numeric water effluent limitations varies depending whether the permit regulates process water (even if mixed with storm water) or storm water only¹⁹. The separate rules for storm water discharges apply only to discharges “composed *entirely* of storm water.” (CWA § 402(p)(1) (emphasis added).) For this reason, the General Permit for Industrial Activities authorizes only storm water discharges. Only eight of the eighteen outfalls at SSFL (Outfalls 003-010) are composed entirely of storm water. The other ten outfalls, whether or not they may be composed of “mostly” or “almost entirely” of storm water, as Boeing contends, are subject to the same regulatory requirements as any other industrial process water. Thus, Boeing does not qualify for coverage under the General Permit.

¹⁶ The Fact Sheet to the Permit includes a thorough discussion of the location, operations, and constituents associated with each outfall.

¹⁷ Clean Water Act (CWA) § 301(b). Hereafter, citations to the federal statute will refer only to the CWA citation.

¹⁸ *Defenders of Wildlife v. Browner* (9th Cir. 1999) 191 F.3d 1159.

¹⁹ As discussed in detail below, process water permits must include numeric effluent limitations unless it is not “feasible” to include such limitations. Storm water-only permits are not required to include numeric effluent limitations, without the necessity of determining infeasibility.

The Permit must include appropriate requirements for both process water and storm water discharges. Boeing also contends that numeric effluent limitations are not appropriate for process water discharges from SSFL, pursuant to federal regulations.²⁰ We will discuss in detail the propriety of numeric effluent limitations for the various outfalls regulated in the Permit. In general, however, we reject Boeing's contention that the Los Angeles Water Board was required to regulate the various discharges from SSFL in a similar manner to the General Permit for Industrial Activities.

Contention: Boeing contends that the monitoring and compliance points are inappropriate.

Finding: The Permit lists eighteen outfalls. Each outfall has numerous numeric effluent limitations for constituents for which the Los Angeles Water Board determined that discharges had the reasonable potential to cause or contribute to exceedances of water quality standards in surface waters. Boeing points out that prior permits for SSFL had fewer points where monitoring was required and where effluent limitations applied. A brief history of the Los Angeles Water Board's permitting strategy is necessary in order to understand this contention.

Boeing challenges the 2004 Permit and modifications in January and March of 2006. The prior permit was adopted in 1998. (Waste Discharge Requirements Order No. 98-051; 1998 Permit.) The 1998 Permit regulated storm water runoff, industrial and domestic wastewater, and groundwater treatment discharges from SSFL. The 1998 Permit established as compliance points Outfalls 001 and 002, which are 6,000 feet south of the final retention ponds, and Outfalls 003-007 to the north.²¹ The 1998 Permit also stated that the storm water discharges were "covered by" the General Industrial Storm Water Permit and that "its requirements are incorporated in [the 1998 Permit] by reference."²² For Outfalls 001 and 002, the 1998 Permit listed numeric effluent limitations for 49 constituents. Outfalls 003-007 in the 1998 Permit have numeric effluent limitations for 25 constituents. Most effluent limitations were for daily maximum and not for monthly average.

The 2004 Permit added the three perimeter outfalls that were not listed in the 1998 Permit (Outfalls 008-010) and the eight interior outfalls (Outfalls 011-018). The 2004

²⁰ 40 Code of Federal Regulations (C.F.R.) § 122.44(k)(3).

²¹ Thus, the 1998 Permit did not list as separate outfalls three of the perimeter outfalls listed in the 2004 Permit (008-010) and the eight interior outfalls that lead to 001 and 002 (011-018).

²² 1998 Permit, Finding 27.

Permit also discussed the reasonable potential for discharges through the various outfalls to cause or contribute to exceedance of criteria in the California Toxic Rule (CTR).²³ The 2004 Permit included numeric effluent limitations for 40 constituents for Outfalls 001 and 002, 19 numeric effluent limitations for Outfalls 003-007, 11 numeric effluent limitations for Outfalls 008-010, and 14 numeric effluent limitations for Outfalls 015-017. (There were no numeric effluent limitations assigned to Outfalls 011, 012, 013, 014, or 018.) A significant change from the 1998 Permit was that the 2004 Permit included maximum daily loads in addition to the maximum daily concentrations in the prior permit. In addition, some of the limitations were more stringent, reflecting the CTR criteria, and some constituents changed. Thus, the major changes from the 1988 Permit to the 2004 Permit were not the inclusion of numeric effluent limitations in the permit—these were already in the 1998 permit, including numeric effluent limitations for storm water-only discharges. The major changes were the addition of numeric effluent limitations for three perimeter outfalls and for three interior outfalls, tightening of some numeric effluent limitations to implement the CTR criteria, and the addition of maximum daily loading limitations.

In January of 2006, based on monitoring results in the interim, the Los Angeles Water Board modified the 2004 Permit, adding numeric effluent limitations for Outfalls 011 and 018²⁴ and for Outfalls 012, 013, and 014²⁵. This permit modification occurred shortly after the Topanga Fire. Finally, in March of 2006, the Los Angeles Water Board again modified the 2004 Permit, this time revising numeric effluent limitations to reflect two Total Maximum Daily Loads (TMDLs) the Board had adopted.²⁶ The result was more stringent and new numeric effluent limitations for outfalls with discharges ultimately flowing to the Los Angeles River: Outfalls 001, 002, 011, and 018.²⁷

²³ 40 C.F.R. title 131.36. In the CTR, the United States Environmental Protection Agency (U.S. EPA) adopted water quality standards for priority pollutants in California. The State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan, or SIP) in order to implement the CTR in permits. The CTR and the SIP were each adopted in 2000.

²⁴ The numeric effluent limitations for Outfalls 001, 002, 011 and 018 are identical.

²⁵ There are 19 numeric effluent limitations listed for Outfalls 012, 013, and 014.

²⁶ The TMDLs were for metals and for nutrient loading in the Los Angeles River. TMDLs are required by § 303 of the CWA. NPDES permits must be consistent with the assumptions and requirements of TMDLs. (40 C.F.R. § 122.44(d)(1)(vii).)

²⁷ Some interior outfalls ultimately flowing to the Los Angeles River also have TMDL-based effluent limitations.

For each effluent limitation at each outfall, the 2004 Permit requires monitoring. Boeing challenges both the number of outfalls listed as compliance points and the breadth of the monitoring requirements. NPDES permits generally must require monitoring at each outfall for each constituent for which there are effluent limitations.²⁸ The federal regulations do not require analytical monitoring at facilities that discharge storm water associated with industrial activities,²⁹ but this relaxation of requirements is generally associated with the “nature of the permit conditions.”³⁰ Thus, where a permit regulating storm water discharges associated with industrial activity does contain numeric effluent limitations, “sampling requirements will be appropriate,”³¹ while permits that include BMPs in lieu of numeric effluent limitations, may require inspections and BMP evaluation rather than sampling.³² Therefore, to the extent that outfalls are properly listed as compliance points and that numeric effluent limitations are appropriate, then the monitoring requirements are appropriate. We turn then to the propriety of listing eighteen outfalls as compliance points.

In reviewing the specific locations for sampling and compliance, it is true that the number of outfalls has grown, from the 1998 permit, which listed seven outfalls, to the 2004 Permit, which lists 18 outfalls. Moreover, when the 2004 Permit was adopted, it listed 13 outfalls as compliance points, and when it was modified in 2006, it listed 18 outfalls as compliance points. The actual activities at the SSFL did not vary greatly from 1998 until 2006, although the Los Angeles Water Board did obtain more detailed monitoring data over these years. The chief change in regulatory strategy that resulted in the addition of outfalls was the inclusion of “interior” outfalls as compliance points. There are seven outfalls that all drain to Outfalls 001 and 002.³³ In addition, the number of perimeter outfalls grew from seven to ten.³⁴ In reviewing the propriety of adding these outfalls as compliance points, we address the interior and perimeter outfalls separately.

We first consider the perimeter outfalls. The 2004 Permit added Outfalls 008, 009, and 010. Storm water runoff discharges from Outfalls 009 and 010 to Arroyo Simi to the

²⁸ 40 C.F.R. § 122.44(i).

²⁹ 40 C.F.R. § 122.44(i)(2)(i)(4) and (5).

³⁰ Vol. 57 Federal Register 11394, 11402.

³¹ *Ibid.*

³² *Ibid.*

³³ Outfalls 011-018.

³⁴ Outfalls 008-010 were added.

north of SSFL. Storm water runoff at Outfall 008 discharges from Happy Valley to Dayton Canyon Creek, which ultimately flows to Bell Creek and then the Los Angeles River. Outfalls 001-007, which have all been compliance points with numeric effluent limitations since at least 1998, each discharge to different watersheds around the perimeter of the site.

The Fact Sheet to the 2004 Permit describes in detail each outfall, the locations of former and current industrial activities that are drained, and the constituents of concern. All of the perimeter outfalls are placed so that they would pick up pollutants associated with industrial activities. The industrial activities at the site, including the prior activities for which there are historic contaminants, are indeed potentially substantial contributors of pollutants to surface waters. Outfalls 001 and 002 receive the vast majority of the site's runoff, including treated wastewater, water from the groundwater treatment systems, excess reclaimed water, water from the engine test stands, and storm water. While the other perimeter outfalls have much less runoff, and do not receive process wastewater, they each drain areas that may contain pollutants from the numerous industrial activities conducted at the site. For example, Outfall 010 drains Building 203, which is subject to significant remediation measures under the direction of DTSC. The building was used for repair and calibration of instruments containing mercury. Currently, the building houses operations related to laser research, including polishing fibers, hand wipe solvent, and chemical cleaning, assembly and testing of components.³⁵ Should BMPs fail, these contaminants would pose significant risks to surface waters. We conclude that each of these perimeter outfalls is properly situated as a compliance point.³⁶ We also conclude that the 2004 Permit properly requires monitoring at each of these outfalls.

The interior outfalls³⁷ raise different issues concerning their propriety. Each of these outfalls is authorized to receive commingled process and storm water. Flows through Outfalls 012, 013, 016 and 017 discharge through Outfall 018, and thence through Outfall 002. Flows through Outfalls 014 and 015 discharge through Outfall 011, and thence through Outfall 001. Each of the six outfalls that flow to Outfalls 011 and 012³⁸ is located near areas of significant past and present industrial activity. While the effluent limitations for 012-017 vary depending on the contaminants present at the specific areas drained, the effluent limitations for 001, 002, 011, and 018 are identical, reflecting that each drains large areas of SSFL and that

³⁵ All wastes are currently placed in containers and transported off-site for disposal.

³⁶ We will discuss separately, *infra*, the propriety of the numeric effluent limitations assigned to these outfalls.

³⁷ Outfalls 011-018.

011 and 018 drain to 001 and 002, respectively. The Fact Sheet for the January 2006 Permit states: "Discharges from Outfalls 011 and 018 receive no additional treatment or additional discharges prior to exiting Outfalls 001 and 002."³⁹

In considering the decision by the Los Angeles Water Board to list Outfalls 011-018 as separate outfalls, each with numeric effluent limitations, we again consider the uniqueness of the SSFL site—its large size, its hilltop location, the significant chemicals used in the past, and to a lesser extent, in the present. We also note Boeing's argument that it no longer intends to discharge non-storm water flows, although it has not yet submitted a report of waste discharge for a permit that would prohibit all discharges of industrial process and domestic wastewater. Since the Permit currently regulates process water discharges at each interior outfall, it is appropriate to apply numeric effluent limitations at each of these outfalls. U.S. EPA regulations require this approach:

All permit effluent limitations, standards, and prohibitions shall be established for each outfall or discharge point of the permitted facility, except as otherwise provided under §122.44(k) (BMPs where limitations are infeasible) (40 C.F.R. § 122.45(a).)⁴⁰

It is possible that, even if Boeing continues to discharge commingled runoff, some of the numeric effluent limitations in the interior and the perimeter may, in fact, count the same violation twice in such a manner as to treat a single violation as multiple violations. In other words, if discharges are unchanged from an interior outfall to a perimeter outfall, and the same numeric effluent limitations are exceeded at each outfall, Boeing could be cited twice for the same violation. The ongoing monitoring results required by the Permit should disclose whether that is the case. Therefore, if Boeing does not submit a report of waste discharge limiting its discharges to storm water only, the Los Angeles Water Board must consider whether there is double counting for violations at more than one outfall and, if there is, avoid this. The Los Angeles Water Board should undertake this review when it reissues a permit.

³⁸ Outfalls 012-017.

³⁹ Fact Sheet for January 2006 Permit, at p.35 accompanying Order No. R4-2006-0111. In its Response to Comments on the draft NPDES permit, the Los Angeles Water Board explains that the property between Outfalls 001 and 011 and between Outfalls 002 and 018 is undeveloped land where no industrial operations have occurred and that "staff will not oppose a decision to delete Outfalls 001 and 002 as compliance points or a decision to require monitoring only at these locations." (Fact Sheet, at p.34.)

⁴⁰ Thus, so long as numeric effluent limitations are appropriate, each outfall must be regulated as a compliance point. In the next Contention we discuss Boeing's contention that the Los Angeles Water Board erred in including numeric effluent limitations and that it should have instead used BMPs pursuant to 40 C.F.R. § 122.44(k).

Even before the Permit might be modified or reissued, we conclude that it was not appropriate for the 2006 Permit to establish compliance points at both Outfalls 001 and 011 and at both Outfalls 002 and 018. As is clear from the Fact Sheet and the Response to Comments, there is no evidence that there will be any change in pollutants discharged between Outfalls 011 and 001 or between Outfalls 018 and 002. According to the administrative record, there are no industrial operations or other potential contributors of pollutants between each of these points; the only rationale provided was that the decision was within the discretion of the Los Angeles Water Board. But in the exercise of discretion there must be rationale provided. Normally the State Water Board would not review the designation of specific outfall locations. In this case, because of the large number of effluent limitations and constituents regulated, adding Outfalls 011 and 018 will have the effect of doubling the number of any permit violations of effluent limitations at Outfalls 001 and 002 without any observable benefit to water quality. We conclude that the Permit should not have established effluent limitations for Outfalls 011 and 018.⁴¹

Contention: Boeing contends that the Permit inappropriately contains numeric effluent limitations for storm water-only discharges, that the numeric effluent limitations for commingled wastewater are improperly calculated, and that the Permit improperly determines that Boeing's discharges have the reasonable potential to cause or contribute to many of the water quality standards cited in the Permit.

Finding: Before addressing these contentions, we will point out that there are only eight outfalls that are currently authorized to discharge storm water only. While the other ten outfalls may discharge mostly or, as Boeing claims, "almost entirely" storm water, the fact that the Permit authorizes the discharge of industrial process and domestic wastewater from these outfalls raises different issues in evaluating the propriety of the process the Los Angeles Water Board followed in determining "reasonable potential" and in establishing numeric effluent limitations.

For the commingled discharges—Outfalls 001, 002, and 011-018—the Los Angeles Water Board was required to adopt numeric effluent limitations unless it was infeasible to establish such limitations.⁴² In adopting numeric effluent limitations, it was required

⁴¹ We will leave to the sound discretion of the Los Angeles Water Board whether to delete the effluent limitations from Outfalls 001 and 002 or from Outfalls 011 and 018. Pending that determination, this Order will stay the effect of the effluent limitations for Outfalls 011 and 018.

⁴² For process water discharges, 40 C.F.R. § 122.44(k)(3) permits non-numeric effluent limitations, generally in the form of BMPs, where numeric effluent limitations are not feasible. (*Communities for a Better Environment v. State Water Board* (2003) 109 Cal.App.4th 1089, 1105.)

to comply with the SIP for priority pollutants listed in the CTR. The SIP sets forth the methodology for determining which constituents exhibit "reasonable potential" and for calculating the numeric effluent limitations. In prior orders,⁴³ we have discussed in detail the requirements of the SIP and the required methodology for determining reasonable potential and calculating effluent limitations. We have reviewed the methodology employed by the Los Angeles Water Board and its explanation of its determinations and find these efforts to be exceptional.

We will address Boeing's contention that, in light of section 122.44(k)(3) allowing the use of BMPs in lieu of numeric effluent limitations where it is infeasible to establish numeric effluent limitations, the Los Angeles Water Board acted improperly or inappropriately in establishing numeric effluent limitations.⁴⁴ Boeing contends that it has proven that it cannot comply with numeric effluent limitations "immediately" and it claims that Los Angeles Water Board staff members concede "that Boeing cannot immediately comply" with the requirements.⁴⁵

There is little precedent concerning the meaning of the term "infeasible" in section 122.44(k)(3). In *Communities for a Better Environment, Supra*, the court upheld the Boards' conclusion "that a numeric WQBEL was not feasible (i.e., 'not appropriate')" We view the issue of determining whether a numeric effluent limitation is "feasible" as concerning the ability or propriety of establishing such a limit, rather than the ability of the discharger to comply. In *Communities*, the court addressed the feasibility of a numeric effluent where the limitation implemented a narrative water quality objective, there was a need for ongoing study of the constituent, and there was an upcoming TMDL for the particular constituent. (Numerous other constituents were subject to numeric effluent limitations for the mixed storm water and process water discharge in that case.⁴⁶) We disagree with Boeing's reading of the provision, i.e. that "feasibility" refers to its ability to comply with the limitations. Discharges of process

⁴³ See, e.g., *In the Matter of Yuba City*, State Water Board Order No. WQO 2004-0013 and *In the Matter of County Sanitation District No.2* Order No. WQO 2003-0009.

⁴⁴ It is, frankly, difficult to determine whether Boeing does, in fact, make this contention. Because of its emphasis on commingled discharges being mostly (or perhaps, all) storm water and its use of the term "infeasible" to refer to the time in which it can achieve compliance (discussed below), it is not entirely clear that Boeing is challenging the use of numeric effluent limitations to regulate the commingled wastewater. Nonetheless, because it seeks to "vacate any new numeric effluent limits added to the 2004 or 2006 Permits applicable to combined storm water and wastewater dischargers" (Petition, 2/21/06), we will address this contention.

⁴⁵ Memorandum of Points and Authorities, 3/16/06, at p.23.

⁴⁶ See, also, *In the Matter of National Steel and Shipbuilding Company*, Order WQ 98-07 (approving numeric effluent limitations for facility discharging storm water along with some process water).

wastewater from industrial sites (and storm water-only discharges associated with industrial activity) must comply with water quality standards.⁴⁷ Whether the permit limitations are written as BMPs or as numeric effluent limitations, the legal standard is the same. As we have stated before, programs of prohibitions, source control measures, and BMPs constitute effluent limitations and can be written to achieve compliance with water quality standards.⁴⁸

In any event, Boeing does not clearly argue that, for its commingled wastewater discharges, it cannot achieve compliance with the numeric effluent limitations. Rather, it argues that it cannot achieve "immediate" compliance. Much of its argument refers to the impacts of the Topanga Fire and the need for time to come into compliance. This argument is relevant to the need for compliance schedules, rather than whether numeric effluent limitations should be employed. We are also cognizant that Boeing has been subject to numeric effluent limitations for discharges through 001 and 002, which drain all of the commingled wastewater outfalls, since at least 1998. Finally, the amount of toxic chemicals historically and currently used at the site, in addition to the site topography that results in large amounts of runoff, all lead to the conclusion that it is feasible, i.e. appropriate, to establish numeric effluent limitations for the commingled runoff from the site. We conclude that the Los Angeles Water Board did not act inappropriately or improperly in refusing to find that numeric effluent limitations were infeasible pursuant to 40 C.F.R. section 122.44(k)(3).

However, the Los Angeles Water Board must modify (or reissue) the permit so that either Outfalls 001 and 002 or Outfalls 011 and 018 are subject to numeric effluent limitations, but not all four outfalls.

There are eight outfalls that are currently permitted to discharge only storm water runoff.⁴⁹ These outfalls, except for Outfall 008, discharge to the northeast of SSFL, into different watersheds than the major Outfalls 001 and 002. Outfall 008 discharges through Happy Valley and eventually to the Los Angeles River, but not through Outfalls 001 or 002. All of these outfalls, except for Outfall 008, have been regulated with numeric effluent limitations at least since the 1998 Permit. Each outfall is positioned so as to receive runoff from specific areas associated with historic or existing areas with contamination from industrial activities.

⁴⁷ CWA § 301(b).

⁴⁸ *In the Matter of Citizens for a Better Environment, et al.* Order WQ 91-3, at p.30-31.

⁴⁹ Outfalls 003-010.

Federal regulations do not require numeric effluent limitations for discharges of storm water.⁵⁰ The Water Boards can include numeric effluent limitations in individual storm water permits or can choose not to. The Water Boards are also not required to perform a reasonable potential analysis for each constituent.⁵¹ We have long held that storm water permits issued in California need not always include numeric effluent limitations.⁵² This is not to say that numeric effluent limitations cannot be included in storm water permits. In adding subsection (2) to section 122.44(k), the U.S. EPA explained that it was employing the Interim Permitting Policy for Water Quality-Based Effluent Limitations in Storm Water Permits (Interim Permitting Policy).⁵³ (Vol. 64 Fed. Reg. 68722, 86788-9.) The Interim Permitting Policy generally endorses narrative effluent limitations based on BMPs, but it also supports numeric effluent limitations where either there is adequate information or the facility has long been subject to numeric effluent limitations:

“In cases where adequate information exists to develop more specific conditions or limitations to meet water quality standards, these conditions or limitations are to be incorporated into storm water permits, as necessary and appropriate. This interim permitting approach is not intended to affect those storm water permits that already include appropriately derived numeric water quality-based effluent limitations.” (Vol. 61 Fed. Reg. 43761; repeated at Vol. 64 Fed. Reg. 68788.)

U.S. EPA explains that the Interim Permitting Policy does not explicitly apply to states and that states are encouraged to adopt similar policies. (*Ibid.*) As Boeing points out in its papers, the State Water Board is currently reviewing the issues concerning whether storm water permits should, as a general matter, contain numeric effluent limitations. To assist us in this task, we appointed a Blue Ribbon Panel and recently received their report and recommendations.⁵⁴ The Panel was asked to address the feasibility of numeric effluent

⁵⁰ 40 C.F.R. § 122.44(k)(2).

⁵¹ *Divers' Environmental Conservation Organization v State Water Resources Control Board* (2006) ___ Cal.Rptr.3d ___, 2006 WL 3423150.

⁵² See, e.g., *In the Matter of Citizens for a Better Environment, et al.* Order WQ 91-3, at p.30-31. Note that prior to 1999, there was no separate exemption for storm water discharges apart from the general rule requiring numeric effluent limitations except where infeasible. Thus, our older decisions and general permits made determinations regarding feasibility. In 1999, § 122.44(k) was amended to add the subsection (2), which authorizes the permitting authority to include BMPs in lieu of numeric effluent limitations in storm water permits, without the necessity of making a determination of infeasibility. (Vol. 64 Fed. Reg. 68722, 68847.)

⁵³ U.S. EPA issued the Interim Permitting Policy was issued on August 1, 1996. (Vol. 61 Fed. Reg. 43761.)

⁵⁴ The report is available at http://www.waterboards.ca.gov/stormwtr/docs/numeric/swpanel_final_report.pdf.

limitations in general industrial permits, general construction permits, and area-wide municipal permits.⁵⁵ Thus, while the report will help the State Water Board and Regional Water Boards to design these new permits, the purpose of the Report was never specifically intended to address individual storm water permits.⁵⁶ The issues explored by the Panel are not directly applicable to this permit and our decision here does not reflect or presage our future actions and policies on the Panel report and the general question of numeric effluent limitations for storm water permits.

We conclude that the Boeing site is unique both from a physical standpoint—the immense area covered, the extensive past contamination, existing activities, and the amount of runoff from the steep terrain—and from a regulatory standpoint, since it has been subject to individual permits with numeric effluent limitations for storm water discharges for many years. The runoff from remediation areas has the potential to contain contaminants from the historic industrial activities. For example, the catchment area of Outfall 004 is comprised largely of a landscape whose surface soil is contaminated with mercury and other contaminants from the former Sodium Reactor Experiment site. Boeing is remediating this site and may ultimately remove the contaminated soil and dispose of it off-site. Until DTSC authorizes such a final solution, the contaminated soil is covered and Boeing uses BMPs at the bottom of the catchment to treat the runoff. It was appropriate and proper for the Los Angeles Water Board to continue to apply numeric effluent limitations at the storm water-only outfalls (including the addition of Outfall 008) in the 2004 Permit and in its modifications.

Boeing also contends that the Los Angeles Water Board was prohibited from applying the SIP when it decided to establish numeric effluent limitations for the storm water-only outfalls. We disagree. U.S. EPA adopted water quality criteria for priority pollutants in California in the CTR. (40 C.F.R. Part 131.36.) In 2000, the State Water Board adopted the SIP to implement the CTR. The SIP includes instructions on determining “reasonable potential” and in calculating numeric effluent limitations for priority pollutants. Thus, the SIP is legally applicable only to priority pollutants listed in the CTR.

The SIP is also not legally applicable to storm water discharges. In footnote 1 of the SIP, we stated: “This Policy does not apply to regulation of storm water discharges. The [State Water Board] has adopted precedential decisions addressing regulation of municipal

⁵⁵ *Ibid.*

⁵⁶ It is, of course, possible that some of the policy decisions we will make regarding whether and how to use numeric effluent limitations in general and area-wide storm water permits could ultimately impact our review of individual permits, but we have not even acted upon the report’s recommendations yet. Moreover, the permit at issue is an individual permit that is a reissuance of a permit that for almost 10 years has always included numeric effluent limitations for its storm water-only discharges.

storm water discharges in Orders WQ 91-03, 92-04, 96-13, 98-01, and 990-05. The [State Water Board] has also adopted two statewide general permits regulating the discharge of pollutants contained in storm water from industrial and construction activities.” All of the references in this footnote refer to area-wide municipal permits and general permits that do not include numeric water quality-based numeric effluent limitations. Thus, by this footnote, we made clear our policy that such permits are not *required* to determine reasonable potential for each constituent or to include numeric effluent limitations.

While the SIP does not legally apply to storm water discharges, that is not to say that if, in an appropriate case, a storm water permit includes numeric effluent limitations, the SIP procedures cannot be employed to determine reasonable potential and to calculate effluent limitations. We have already addressed the use of the SIP for non-priority pollutants.⁵⁷ Where a regional water board makes determinations concerning “reasonable potential” and calculating numeric effluent limitations for constituents not subject to the CTR, the regional water board must articulate the bases for its determinations.⁵⁸ In *Yuba City*, we found that the regional board properly relied on both the SIP and U.S. EPA’s Technical Support Document for Water Quality-Based Toxics Control (TSD) in establishing numeric effluent limitations for non-priority pollutants.⁵⁹ This is precisely what the Los Angeles Water Board did in this case. Just as the SIP can be used for non-priority pollutants, it can also be used for storm water discharges, so long as the methodology is explained and justified. We conclude that the Permit appropriately relied on the SIP, the TSD, and also the California Permit Writers Training Tool in developing the numeric effluent limitations. Because none of these documents are required by a formal Policy or a regulation to be used to determine “reasonable potential” and to calculate numeric effluent limitations for storm water discharge, the Los Angeles Water Board was required to explain fully its procedures.⁶⁰ We conclude that the Los Angeles Water Board met that burden.

Contention: Boeing claims that the Los Angeles Water Board erred in refusing to issue a cease and desist order with a four-year compliance schedule and interim effluent limitations in 2006.⁶¹

⁵⁷ See, e.g. *In the Matter of Napa Sanitation District*, Order WQO 2001-16 and *In the Matter of Yuba City*, Order WQO 2004-0013.

⁵⁸ *Ibid.*

⁵⁹ EPA/505/2-90-001, March 1991.

⁶⁰ See requirements for calculating numeric effluent limitations in 40 C.F.R. title 122.44(d).

⁶¹ Boeing refers to draft Order No. R4-2006-0YYYY, which was prepared by staff from the Los Angeles Water Board.

Finding: The request for a CDO with a compliance schedule raises different issues than Boeing's claims that numeric effluent limitations were inappropriate because compliance with those limitations was "infeasible." As we discussed, above, the issue regarding feasibility for inclusion of numeric effluent limitations pursuant to 40 C.F.R. section 122.44(k)(3) concerns whether it is "appropriate", or feasible from a regulatory perspective, to establish numeric effluent limitations. In any event, the discharge is subject to the strict requirements of compliance with water quality standards. The propriety for an enforcement action that includes a time schedule to come into compliance with the permit's effluent limitations does turn on the specific discharger's ability to comply.⁶²

The permitting history alone does not appear to justify the need for additional time to comply with the Permit. Permits for SSFL have included numeric effluent limitations since at least 1998. The vast majority of new and revised effluent limitations were added in July 2004. When Boeing filed a petition in August 2004, it asked that the petition remain in abeyance and it did not allege that it had been improperly denied a compliance schedule and interim limits. These issues were raised in its appeals of the 2006 Permit modifications. The 2006 modifications, however, were generally limited to adding effluent limitations to the interior Outfalls 012-014 and 015-017. Thus, on the face of the permitting actions alone, it is difficult to justify the need for a compliance schedule and interim limitations, especially Boeing's request that these revisions be retroactive to July 2004.

Boeing also points out, however, the devastating effects of the Topanga Fire as a basis for a compliance schedule and interim limits. The record includes ample evidence that the Topanga Fire, which destroyed vegetation through 70 percent of SSFL, was indeed a major incident that would significantly affect its ability to comply with the numeric effluent limitations in the Permit. The photographs and testimony in the record provide strong evidence that the BMPs in place prior to the September 2005 fire were substantially destroyed and that, in addition, ash from the fire likely contains additional contaminants regulated by the Permit. In light of the large size of SSFL and the fact that most of the volume of discharges are associated with storm water runoff,⁶³ the natural landscape has been used as the major component in the treatment system. Thus, vegetation is used to prevent and remove pollutants from moving off-

⁶² *City of Sacramento v. State Water Resources Control Board* (1992) 2 Cal.App.4th 960, 965.

⁶³ While commingling of process water and storm water result in the legal treatment of the wastewater as process water, in reviewing the *factual* issues, such as whether a fire resulted in the need for a compliance schedule, it is relevant that the wastewater discharges are largely composed of storm water runoff.

site in storm water flows. Commenters including CBG contend that prior to the Topanga Fire Boeing's BMPs were inadequate and that a compliance schedule would, in effect, reward Boeing for past inadequacies. We do not find that argument persuasive. First, regardless of how effective the BMPs and treatment used prior to the fire, all would still be burned and unusable after the fire. Second, while we agree that some of the BMPs most recently installed do surpass the prior BMPs,⁶⁴ we find that these new systems are state of the art and their absence prior to the fire does not necessarily indicate that the prior BMPs were inadequate. As to the list of violations throughout the several years prior to the fire, while we do not in any way condone permit violations, the number of individual permit violations at a site the size and complexity of SSFL does not necessarily mean that the BMPs were wholly inadequate.

The record shows that on January 19, 2006, the Los Angeles Water Board considered whether to issue a cease and desist order. A CDO is an enforcement order. Water Code section 13301 provides that when a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of a permit, "the board may issue an order to cease and desist" and may issue an order requiring immediate compliance, compliance in accordance with a time schedule, and appropriate remedial activities. The State Water Board's Water Quality Enforcement Policy explains the use of cease and desist orders:

"Cease and Desist Orders (CDOs) are adopted pursuant to California Water Code sections 13301-13303. CDOs may be issued to dischargers violating or threatening to violate WDRs or prohibitions prescribed by the RWQCB or the SWRCB. CDOs are often issued to dischargers with chronic non-compliance problems. These problems are rarely amenable to a short-term solution. Often, compliance involves extensive capital improvements or operational changes. The CDO will usually contain a compliance schedule, including interim deadlines (if appropriate), interim effluent limits (if appropriate), and a final compliance date. CDOs may also include restrictions on additional service connections to community sewer systems and combined stormwater/sewer systems."⁶⁵

In light of the circumstances of the Topanga Fire, the nature of the site, including its topography, the fact that most of the discharges consist of runoff, the difficulty of ensuring compliance at numerous outfalls that receive discharges from many sources, and the ensuing impact on Boeing's ability to comply with the permit terms, we conclude that the Los Angeles

⁶⁴ For example, at the stay hearing, Boeing presented evidence of a carbon filtration system now employed at some outfalls.

⁶⁵ Water Quality Enforcement Policy, at p.20.

Water Board acted inappropriately in refusing to issue an enforcement order with a compliance schedule and interim effluent limitations based on the impacts from the Topanga Fire.

We have stated above that the Permit appropriately required strict compliance with water quality standards through numeric effluent limitations. Our findings in this section do not take away from that conclusion. They address, instead, whether the Los Angeles Water Board acted inappropriately and improperly by refusing to issue an enforcement action with a time schedule where the site was subject to a fire that destroyed its control structures. We find that it was not justifiable to demand immediate compliance by Boeing. In view of the impacts of the fire, a time schedule was warranted based on the specific situation that Boeing faced. We note that, as an enforcement action, a CDO does not condone permit violations. Rather, it constitutes a finding of violation or impending violation of an order and it carries with it the potential for higher fines should it be violated.⁶⁶ On the other hand, there is no justification to make the compliance schedule retroactive to July 2004, before the fire and before Boeing even pressed its claim that it needed a compliance schedule. We will remand this issue to the Los Angeles Water Board to issue a CDO. Any CDO should include a compliance schedule that is as short as possible. The order should be retroactive to January 19, 2006, when the matter was considered.

III. CONCLUSIONS

1. The Boeing Permit is an individual permit for commingled storm water and industrial process water and should not be regulated the same as sites subject to the General Permit for storm water discharges associated with Industrial Activities.
2. The monitoring requirements in the Permit are appropriate.
3. Outfalls 001-010, which are situated on the perimeter of the property, are properly situated as compliance points.
4. Outfalls 012-017, which are situated in the interior of the property, are properly situated as compliance points, at least while Boeing is authorized to discharge industrial process water, treated groundwater, and domestic wastewater. But in any event, it is inappropriate to count the same violation twice in such a manner as to treat a single violation as multiple violations.
5. Outfalls 001 and 011 and Outfalls 002 and 018 are duplicative because Outfalls 011 and 018 flow directly to Outfalls 001 and 002, respectively, without any change in flows or discharge in the interim and with only open space between them. The Permit should

⁶⁶ Wat. Code, § 13385, subdivision (e) requires consideration of prior history of violations in establishing administrative liability for permit violations.

include only one set of these outfalls as compliance points subject to numeric effluent limitations.

6. The Permit appropriately contains numeric effluent limitations and these were properly calculated based on determinations of "reasonable potential" to cause or contribute to exceedance of water quality standards.
7. The Los Angeles Water Board properly used the SIP and federal guidance materials to calculate numeric effluent limitations for storm water discharges by explaining and justifying its methodology.
8. The Los Angeles Water Board acted inappropriately in refusing to issue Boeing a CDO, with a compliance schedule and interim effluent limitations, when it modified the Permit in 2006, based on the effects of the Topanga Fire.
9. Nothing in this Order prevents enforcement of the Permits, except insofar as the Los Angeles Water Board adds a compliance schedule in a CDO, which compliance schedule shall not be effective until January 19, 2006. Also, the CDO does not operate to excuse violations of any Permit.

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IV. ORDER

The Permit is remanded to the Los Angeles Water Board to revise the provisions concerning Outfalls 001, 002, 011, and 018, consistent with this Order. The effluent limitations from Outfalls 011 and 018 are stayed, pending a determination by the Los Angeles Water Board deleting either Outfalls 011 and 018 or Outfalls 001 and 002 as compliance points. The Los Angeles Water Board is also instructed to issue a CDO with the shortest possible compliance schedule, which shall be based on the impacts from the Topanga Fire, with interim effluent limitations, and which shall be effective January 19, 2006. The Los Angeles Water Board is instructed to review the Permit to ensure that numeric effluent limitations for different outfalls do not count the same violation twice in such a manner as to treat a single violation as multiple violations. In all other respects, the petitions are DENIED.

CERTIFICATION

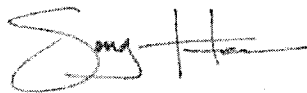
The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on December 13, 2006.

AYE: Tam M. Doduc
Arthur G. Baggett
Charles R. Hoppin
Gary Wolff, P.E., Ph.D.

NO: None

ABSENT: None

ABSTAIN: None



Song Her
Clerk to the Board

Tab 5

DECLARATION OF JASON UHLEY
REGARDING ADDITIONAL FACTUAL ISSUES

I, JASON UHLEY, hereby declare and state as follows:

1. I am Chief of the Watershed Protection Division of the Riverside County Flood Control & Water Conservation District (“District”). In that capacity, I share responsibility for the compliance of the District with regard to the requirements of California Regional Water Quality Control Board, San Diego Region (“RWQCB”) Order No. R9-2010-0016 (the “Permit”), as they apply to the District.

2. I am a Professional Engineer in the State of California and have worked on issues relating to stormwater and urban runoff within the Santa Margarita region of Riverside County for over eight years. I also have been involved in the design and construction of flood control structures in Riverside County through my work with the District, which is required under California law to protect the citizens of the county from flood waters. I also serve on the Board of Directors of the California Association of Stormwater Quality Agencies (“CASQA”), and spent two years coordinating and attending CASQA’s annual stormwater conference, wherein industry professionals, Best Management Practices (“BMP”) manufacturers, and State, Regional and USEPA Regulators come together to share ideas and current and developing trends in stormwater management. I have familiarity with the requirements of the Permit and with applicable federal and state stormwater laws and regulations.

3. I was one of the principal authors of the written comments of the District regarding the proposed Permit and am familiar with their contents.

4. I am familiar with the results of the monitoring of pollutants contained in stormwater and urban runoff in the Santa Margarita region of Riverside County. I also am familiar with the nature of the streams in that region, including their patterns of flow and general lack thereof.

5. I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true. If called upon to testify, I could and would competently do so as to the matters set forth herein.

6. Based on my experience as an engineer with responsibility for flood control projects, including the design and construction of flood control channels, I am familiar with the type of construction required for the reinforcement of flood control channels used in the Santa Margarita region, as well as elsewhere in Riverside County. Any requirement that does not allow the use of non-natural materials such as concrete, rip-rap, or gabions, where needed to reinforce such channels, is not practicable on technical grounds, as in a majority of situations, such materials must be used as necessary to protect the lives and property of the citizens of the County from flood waters. Such non-natural materials, while often necessary, can nevertheless typically be implemented in a manner that fosters the rehabilitation of beneficial uses.

7. I am generally familiar with the nature and location of unpaved roads within the Santa Margarita region of Riverside County. It is my understanding, based on that knowledge, that such unpaved roads largely do not convey stormwater in a fashion that would qualify the roads as part of an MS4. Additionally, such roads may not discharge into an MS4, but rather either discharge sheet flow or, if a waterbody is adjacent to the road, discharge into a natural

waterbody not operated by a municipality and which does not meet the definition of “MS4” contained in federal regulations.

8. The hydrologic character of streams in the Santa Margarita region of Riverside County has been greatly affected by the construction of two dams in the region, the Vail and Skinner Dams, and by groundwater pumping, which have reduced the flows in some streams that were formerly intermittent streams (streams with continual flow at least part of the year), or perennial streams (streams with year-round flow) and made them ephemeral streams (which flow only during wet weather conditions). As a result of the influence of these dams, and the groundwater pumping, during dry weather, the Rancho California Water District is required to discharge water down the Santa Margarita River in order to maintain water supplies to downstream users.

9. During dry weather, the few streams in the Santa Margarita region that formerly were perennial through much or all of their length, are now dry. A limited few that have dry weather flows only in limited segments, typically only a few hundred feet in length. In many of those cases, the source of the limited dry weather flows is known to be resulting from rising groundwater, or from exempt non-storm water discharges from the MS4s. Thus, there is no evidence that streams in the Santa Margarita region have been converted to perennial on the basis of discharges from MS4s.

10. I am familiar with the six special studies that the RWQCB has required under the Permit to be performed by the copermittees. In particular, it is my understanding that the cost of the study on intermittent and ephemeral stream conversion to perennial streams would exceed \$30,000 and could be as much as \$100,000.


11. Programs and controls implemented to reduce pollutants to the Maximum Extent Practicable (“MEP”) standard, while compliant with the federal regulations, may not be enough to ensure that MS4 discharges do not at any time cause or contribute to an exceedance of water quality standards. This is because the character of pollutants in stormwater and urban runoff discharged from MS4s as well as in Receiving Waters, both across the state, and within the Santa Margarita region of Riverside County, have been shown to be extremely variable. Further, the sources of pollutants in that stormwater and runoff are multiple, and are not always attributable to anthropogenic sources under the jurisdiction of the Copermittees, nor to discharges from Copermittees’ MS4s. For example, Manganese is known to be pervasive in both the soils and groundwater within the Santa Margarita region, and has been detected in stormwater runoff at widely varying concentrations and locations over time and even within a single wet season. This variability further complicates attempts to identify any potential anthropogenic sources that may be contributing. Due to these factors, it would be impracticable to design MS4 programs that, by reducing pollutants to the MEP, could simultaneously ensure that at no point in time did MS4 discharges cause or contribute to an exceedances of the Manganese water quality standard in receiving waters. This conundrum exists for virtually all pollutants in stormwater runoff to some degree, reinforcing the conclusion that even programs designed to reduce pollutants in MS4 discharges to the MEP cannot guarantee that such discharges will not at some point in time cause or contribute to an exceedances of a water quality standard.

12. Based on my knowledge of the variability of the concentrations of pollutants in stormwater discharges within the Santa Margarita region of Riverside County, the status of stormwater BMP technology in general, as well as the nature of water quality standards established by the State of California as applicable in the Santa Margarita region , I am not aware

of any practicable BMP programs or technology that, while reducing pollutants to the MEP, can also ensure that MS4 discharges will not at some point in time cause or contribute to exceedances of any water quality standard. This is a conclusion based both upon the difficulty of attaining the State's water quality standards and the costs to be incurred in that effort.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed on November 9, 2011 at Riverside, California.

Jason Uhley



Tab 6



RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
September 7, 2010

Chairman David King and Members of the Board
San Diego Regional Water Quality Control Board
9174 Sky Park Court, Suite 100
San Diego, California 92123-4353

Dear Chairman King:

Re: Tentative Order R9-2010-0016, NPDES
No. CAS0108740, Riverside County
Municipal Separate Storm Sewer System
Permit Reissuance *NWU:749045:bneill*

The Riverside County Flood Control and Water Conservation District (District) is submitting this comment letter on the above listed Tentative Order, on behalf of the Riverside County MS4 Permittees within the San Diego Region (Copermittees). Tentative Order R9-2010-0016 (draft MS4 Permit) was drafted by Board staff to serve as the reissuance of Order R9-2004-0001 (existing MS4 Permit) which covers the Santa Margarita Region of Riverside County. This letter was developed in consultation with the Copermittees and reflects our most critical concerns. The Board's careful consideration of these critical concerns will be appreciated.

This comment letter is organized as follows:

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Background.....	4
Receiving Waters and Water quality Conditions	4
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Economic Conditions	6
Approach to the Permit Renewal.....	7
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Chairman David King
and Members of the Board

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September 7, 2010

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In addition, the following attachments provide support for our priority issues and solutions, provide additional legal comments and/or summarize additional technical changes recommended to the draft MS4 Permit. Attachment 9 is a full redline markup of the draft MS4 Permit incorporating all of our recommended edits. Attachment 9 also includes additional minor edits not found elsewhere in this letter or its attachments.

- Attachment 1** – Summary of Proactive Efforts to Manage Stormwater
- Attachment 2** – Economic Assessment
- Attachment 3** – Language Changes Supported by Board Staff and Copermittees
- Attachment 4** – Monitoring and Reporting Program Requirements
- Attachment 5** – Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit
- Attachment 6** – Prohibition of Irrigation Runoff
- Attachment 7** – General Legal Comments
- Attachment 8** – District Specific Comments
- Attachment 9** – Redline Comments of MS4 Permit and Attachments
- Attachment 10** - Fact Sheet Comments

EXECUTIVE SUMMARY

It is the goal of the Copermittees to obtain an MS4 permit that is both protective of the beneficial uses of the receiving waters in the Santa Margarita Region and respectful of the unprecedented economic conditions impacting the Copermittees. Further, the Copermittees have no interest in repeating the three-year Orange County MS4 Permit adoption process. In an effort to achieve our goal and head off a renewal process similar to Orange County's, the Copermittees approached David Gibson, Regional Board Executive Officer, in February 2010 regarding implementing a win-win process for developing the draft MS4 Permit.

In response, the Executive Officer authorized Board staff to meet with the Copermittees to foster communication and understanding. The Copermittees appreciate the Executive Officer's decision to dedicate staff time to meetings regarding the individual requirements of the South Orange County MS4 Permit and the appropriateness of those individual requirements to the Santa Margarita Region. The meetings provided an opportunity to foster a mutual understanding of the goals and objectives of Board staff and the capabilities and limitations of the Copermittees. As a result, the Permittees and Regional Board staff worked collaboratively to develop language for consideration in the Tentative Order.

However, the process did not resolve several significant issues due to the following constraints:

1. The process needed to be cut short as the Board expected the draft MS4 Permit to be heard in October. Copermittee staff requested that the hearing be delayed to allow the process to complete several times, but these requests were denied;

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2. Regional Board staff indicated that the Board had adopted the South Orange County MS4 Permit as a model permit and, therefore, the Board would have to approve any major revisions to the provisions established in that MS4 Permit; and
3. Regional Board staff indicated that the Board would have to resolve our issues with several new provisions of the draft MS4 Permit addressing unpaved roads, inspection programs and monitoring requirements, all requirements that exceed the provisions of the Orange County MS4 Permit.

Although the collaborative process has improved the draft MS4 Permit with respect to several provisions of the Orange County MS4 Permit, Board staff also introduced several costly compliance and monitoring requirements, many of these requirements were introduced during the very latter part of the collaborative process. As described within this letter and its attachments, **the remaining issues and these new requirements result in a Permit that is economically infeasible** and has no substantiated nexus to demonstrated impairments of beneficial uses within the Santa Margarita Region caused by MS4 discharges. **At a minimum, the Priority issues outlined below must be addressed before the Copermittees can support the draft MS4 Permit.**

The Copermittees note that despite being directed to take several important issues to the Board, we have not been provided an opportunity for a formal or informal workshop before the Board. By contrast, the South Orange County MS4 Copermittees had at least three workshops and five formal hearings prior to adoption of that permit. Although we do not want to duplicate the Orange County renewal process, it is common practice to allow at least one workshop on significant permit issues before holding an adoption hearing. Given the issues outlined in this letter and in the attachments, there are numerous issues worthy of at least one workshop.

The Copermittees also have significant concern with the use of the South Orange County MS4 Permit as a model for our MS4 Permit area. As outlined in more detail throughout this letter and the attachments, the South Orange County and Santa Margarita Region MS4 Permit areas vary widely with regard to the water resources to be protected and available tax revenue to fund local programs and services, including compliance with MS4 permit requirements. Orange County has substantial coastal water resources with active recreational use, twice the population, and significantly higher tax revenues. The per capita cost for the residents within the Santa Margarita Region to comply with the requirements of the draft MS4 Permit is significantly greater than the per capita cost faced in South Orange County, with each dollar spent effectively hitting our residents three to four times harder. The expansion of regional program elements (e.g., coordination, monitoring, reporting, program development, effectiveness assessment) will result in an annual doubling of these costs, with a peak increase of nearly 300% for these programs alone. The Copermittees simply cannot economically support, nor does the Santa Margarita Region warrant, the same level of programs as South Orange County to protect our local receiving waters.

Chairman David King
and Members of the Board

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In summary, the meetings between Regional Board staff and Copermittee staff were honest, good faith and productive efforts to bridge the gaps between the requirements of the Orange County MS4 Permit and the specific needs of, and resources available to, the Upper Santa Margarita Watershed (the draft MS4 Permit area). However, given the constraints identified herein, the differing impacts on beneficial uses and current economic realities, the current draft MS4 Permit cannot be supported by the Copermittees.

The Copermittees, therefore, request that the Board direct staff to work with the Copermittees to resolve the issues identified in this letter prior to considering adoption of the Permit.

In the interest of developing economically feasible requirements for Board consideration, the balance of this letter and its attachments propose and justify changes to the draft MS4 Permit that will reduce costs to an achievable level, while continuing to raise the bar, where appropriate, to effectively protect the beneficial uses of receiving waters in the Santa Margarita Region. Please note that the Copermittees have many other concerns in addition to those identified in this letter with provisions in the draft MS4 Permit. These concerns are discussed in the Attachments to this letter, the redline of the Permit and the letters drafted by individual Copermittees.

BACKGROUND

Receiving Waters and Water Quality Conditions

This draft Permit proposes to regulate discharges from the MS4 owned by the Copermittees within the Santa Margarita Region of Riverside County. The MS4 in the Santa Margarita Region primarily discharges into Murrieta and Temecula Creeks and immediate tributaries thereto.

Unlike several of the watersheds in South Orange County, which exhibit perennial flow, the Santa Margarita Region is an ephemeral watershed. The only areas of perennial flow in the Santa Margarita Region are located at the formation of the Santa Margarita River right at the County line and in mountain areas outside of the urbanized areas serviced by the MS4s. The creeks in the urbanized areas of the watershed serviced by the MS4s are ephemeral and flows are only observed during and immediately after significant storm events. Any non-stormwater flows quickly disappear by seepage into the alluvial sands. Additionally, rising groundwater has been observed in Murrieta and Temecula Creeks for a short distance at various locations upstream of the confluence with the Santa Margarita River; however such conditions existed prior to urbanization.¹

Since the initial MS4 permit was issued in 1990, the Copermittees have been actively and successfully implementing programs to manage their MS4 discharges. As described in the 2009 report of waste discharge (ROWD) submitted by the Copermittees, there have been no statistically

¹ State of California Department of Public Works Division of Water Resources, Bulletin No. 57, "Santa Margarita River Investigation," Volume I, June 1956, p. 48.

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significant increases in pollutant concentrations since issuance of the initial MS4 permit in 1990, despite the fact that the Santa Margarita Region has experienced over 300% population growth over the same time period. Further, although staff points out several recent 303(d) listings as basis for the need to enhance regulations, these listings were based on data that mostly predates our existing management programs implemented under the 2004 NPDES MS4 Permit. Further, the Permittees have submitted additional data for the current round of listings that should result in the removal of some of these additional listings based on more recent data. Additionally, the likely sources of these impairments include natural background concentrations in soils and groundwater (iron and manganese), natural and/or agricultural source loads (nutrients, total dissolved solids, sulfates and bacteria), and/or federally authorized uses of products (pesticides and copper). Although all of these sources can have urban components, it is also clear that these sources are mostly non-point in nature and not solely urban sourced, as implied in the Fact Sheet and Findings.

Proactive Permittee Programs to Protect Local Resources

Murrieta and Temecula Creeks and their tributaries are an important economic, environmental and social resource for the Santa Margarita Region. The Copermitees are cognizant of these benefits and have implemented or initiated proactive programs beyond the requirements of the current and previous MS4 permits to ensure that these resources remain viable and are protected for future generations. These programs are described in Attachment 1 and include:

- Integrated Planning, including the development of an Integrated Regional Water Management Plan that is actively coordinated with San Diego and Orange Counties.
- Management of New Development, including a progressive LID BMP implementation program five years in the making. The program includes a comprehensive LID BMP design manual, proposed public maintenance mechanism and a \$3,000,000 LID BMP Testing and Demonstration Facility.
- Water Quality Monitoring and Assessment, including active participation in the Southern California Stormwater Monitoring Coalition, California Stormwater Quality Association (CASQA) and Santa Margarita Region Executive Management Team, and including funding of several special studies designed to improve the science of stormwater management.
- Statewide Stormwater Leadership, including active leadership in promoting changes in the regulations of pesticides at the state and federal level and strong leadership and representation within the CASQA organization.
- Habitat and Aquatic Resource Conservation, including development of the largest and most comprehensive Multiple Species Habitat Conservation Plan in California.

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Economic Conditions

As the draft MS4 Permit for the Santa Margarita Region of Riverside County was modeled on the MS4 Permit developed for South Orange County, it is important to carefully contrast the economic resources available to the Counties:

- The population of the Santa Margarita Region (289,765) is 48% less than the population of South Orange County (553,161).²
- The 2009 per capita income in Riverside County (\$29,177) is 38% less than the per capita income in Orange County (\$46,898).³
- The current unemployment rate in Riverside County is 15.3 percent, which is 56% higher than the unemployment rate in Orange County (9.8 percent).⁴

Property and sales tax revenues are the primary sources of funding for local programs and services, including compliance with MS4 Permit requirements. Based on population and average home value, South Orange County generates over four times the property tax revenue generated in the Santa Margarita Region. Based on data presented in the Los Angeles Economic Development Corporation's July 2010 Economic Forecast, South Orange County generates 2.6 times the taxable sales generated in the Santa Margarita Region. As a less affluent area with a relatively small population, the Copermittees in the Santa Margarita Region receive significantly less property and sales tax revenue than municipalities in South Orange County and are less able to fund additional MS4 Permit compliance costs. These issues are discussed in detail in Attachment 2.

The recession also has impacted the economy in the Santa Margarita Region more than in South Orange County and it is projected that tax revenues will continue at a reduced level for an extended period, with **recovery not expected within the Permit term**. The poor economy has resulted in reductions of reserves to minimum levels and cuts or eliminations in virtually all local services and programs in the Santa Margarita Region. As a result any increases in funding for the water quality mandates contained in the draft MS4 Permit can come only by reducing funding for public safety or other existing state and federal mandates.

Modeling the draft MS4 Permit on the South Orange County permit represented a significant expansion of compliance requirements and compliance costs relative to the existing MS4 Permit issued to the Santa Margarita Region Copermittees. The requirements in the draft MS4 Permit have been expanded to include additional compliance and monitoring requirements beyond the South

² Richard Boon, County of Orange, personal communication, September 1, 2010.

³ Economic Forecast, Los Angeles Economic Development Corporation, July 2010.

⁴ Monthly Labor Force Data for Counties, July 2010 – Preliminary, Labor Market Information Division, Employment Development Department, August 20, 2010. <http://www.calmis.ca.gov/file/lfmonth/countyur-400c.pdf>

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Orange County permit, further increasing compliance costs. We would submit that such an approach is fundamentally unfair and could be viewed as arbitrary.

Approach to the Permit Renewal

As noted above, the Copermittees share the Board's goal of continually improving both the effectiveness and the efficiency of the MS4 compliance program. To that end, the Copermittees proposed program revisions in the ROWD that were designed to effectively manage/address the discharge of pollutants from their MS4, while making effective and responsible use of sharply reduced and further declining public funds. The ROWD recognized the Copermittees' proactive efforts and integrated those efforts into our recommendations for enhancing the MS4 Permit program. Further, the Copermittees met with Regional Board staff prior to the submittal of the ROWD in January 2009 to ensure that we had identified and addressed all of staff's concerns.

In March 2010, the Copermittees met with the Regional Board staff to discuss a collaborative process for renewing the draft Permit. At that time, the Executive Officer identified that the Board's fundamental goals for the renewal would be to develop a permit that is:

- Socially responsible;
- Environmentally responsible;
- Affordable; and
- Protective of water quality.

The Copermittees proposed initiating the discussions by focusing on the existing MS4 Permit and identifying what provisions needed to be changed to address local water quality conditions, the approach outlined in the ROWD. Regional Board staff preferred to start with the South Orange County permit and require the Copermittees to justify why programs in the Santa Margarita Region should be different than those proposed for Orange County. Regional Board staff also noted that none of the major provisions of the South Orange County permit could likely be altered, as that permit was now a model for the San Diego Region. In the interest of moving the process forward in light of the current economy, the Copermittees agreed to proceed based on the Board staff's terms.

Outcome of Discussions with Board Staff

The discussions resulted in several improvements to the draft Permit including:

- Streamlined and more useful reporting and effectiveness assessment requirements.
- Greatly improved Development Planning / Low Impact Development (LID) requirements (further discussed in Attachment 3).

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- Language clarifications to more clearly state the intent of various requirements and to eliminate ambiguity.
- Enhanced understanding of the permit requirements and intent.

However, the addition of several new requirements not originally in the Orange County MS4 Permit as well as the constraints of working from within the boundaries of the existing Orange County MS4 Permit, resulted in an economically infeasible draft MS4 Permit that exceeds the water resource protection needs of the Santa Margarita Region and is too expensive for implementation by the Copermittees. Unless the permit requirements are revised to address specific local needs and resources, the Copermittees will not be able to implement the Permit requirements in a manner that is protective of water quality.

PRIORITY ISSUES AND SOLUTIONS

The Copermittees have identified specific and focused changes to the Permit that will allow the Copermittees to address staff's primary water quality concerns, while reducing compliance costs in a manner that is appropriate for the local watersheds. As previously noted, Board staff has directed the Copermittees to bring these changes directly to the Board for consideration, although we are hopeful that by summarizing them in writing that they may be addressed ahead of the scheduled October 13th hearing.

Monitoring and Reporting Program (Attachment 4)

Prior to the submittal of the ROWD, the Copermittees met with Board staff to propose changes to the Monitoring and Reporting Program (MRP). In these discussions, Board staff identified two areas for needed improvement:

- Relocation of Illicit Connection / Illicit Discharge (IC/ID) monitoring stations to MS4 outfalls, and
- Incorporation of Action Levels

In more recent discussions, Board staff noted that the MRP needed significant modification to reflect the South Orange County MRP, but would be scaled to be appropriate to the smaller Santa Margarita Region.

Unfortunately, the final MRP requirements have been expanded well beyond the South Orange County MRP requirements, resulting in a program that is completely out of proportion with the needs and resources of the Santa Margarita Region. In fact, the proposed MRP requirements will result in a **500% increase in monitoring program costs**, costing our residents **over two and a half times the per capita costs for South Orange County**.

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Per Capita Monitoring Cost Comparison

Draft Permit	OC Permit
\$5.13 per capita	~\$2.00 per capita

The Copermittees recognize that monitoring and data collection is necessary. However, the MRP requirements exceed what is necessary to address management questions related to water quality, are beyond requirements dictated in the South Orange County MRP, and are beyond the Copermittees' ability to fund. Not only are the level of requirements inappropriate for the Santa Margarita Region, but they disregard the economic realities faced by the Copermittees. As such, the MRP falls far short of meeting the Executive Officer's stated goals of affordability.

In the interest of finding ways to offer Board staff a comparable program in a more cost effective and appropriate manner, the Copermittees have identified nine adjustments to the MRP that will **save approximately seven hundred and eighty thousand dollars (\$780,000) annually** and bring per capita monitoring costs more in line with the South Orange County MRP, while maintaining the core components of the MRP. Table 1 summarizes the key changes and the respective cost savings. It is important to note that any change highlighted in RED reflects bringing the program in line with the South Orange County MRP. Figure 1 below shows graphically the comparative costs for the draft MRP with and without the requested adjustments. Please note that the 100% baseline in Figure 2 reflects the current cost of the Copermittees' current MRP.

Table 1 - Cost Savings resulting from proposed MRP changes¹

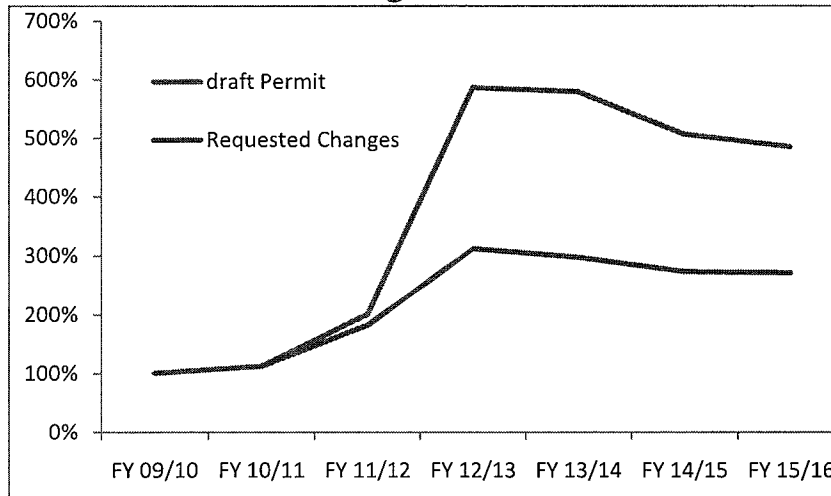
Component	Requested Change	Cost reduction
Mass Loading Stations	1) Wet Weather - 3 wet -> 2 wet	~\$79,000
	2) Dry Weather - Composite -> Grab	~\$66,000
Toxicity Testing (MLS and Bioassessment)	3) 3 organisms -> 2 organisms	~\$14,000
Bioassessment	4) 6 stations -> 3 stations	~\$158,000
	5) 2X each -> 1X each	~\$95,000
Action Levels	6) 'Representative Number/Percent' -> Representative - and remove 'within each sub area'	~\$241,000
	7) SAL Composites -> Grab	~\$165,000
Inland Aquatic Habitat Monitoring	8) Eliminate requirement	~\$140,000
Special Studies	9) 6 special studies -> 4 studies, and Replace with more locally appropriate studies	~\$220,000/year
<u>TOTAL ESTIMATED SAVINGS</u>	Net savings of all recommended changes (annualized)	<u>~\$780,000/year</u>

Note: Red text refers to requirements currently in the South Orange County MRP.

1. See Attachment 4 for detail descriptions of requested changes.

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Figure 1



Draft Permit	OC Permit	Proposed Changes
\$5.13/per capita	~\$2.00/per capita	\$2.54/per capita

Although the requested adjustments to the MRP will not eliminate cost increases, and will result in an MRP which is more expensive, on a per capita basis, than the South Orange County MRP, they provide a more manageable program for the Copermittees.

The Copermittees request that the Board make the adjustments identified in Attachment 4 above before Permit adoption.

Each of these requested adjustments and justifications for each is further discussed in Attachment 4 to this letter.

Unpaved Roads Requirements (Sections F.1.i, F.3.a.(11), F.3.c.(5))

The requirements for unpaved roads are particularly cumbersome, onerous and unreasonable. Our detailed analysis of these requirements is provided in Attachment 5. In summary, the proposed unpaved road requirements may result in substantial and unnecessary additional Copermittee costs that are not justified by the facts in the Santa Margarita Region. The Copermittees believe that the existing MS4 Permit requirements for new development, construction, maintenance and IC/ID adequately address regulation of unpaved roads that threaten water quality. If the Regional Board believes that unpaved roads require further regulation, the Copermittees believe that the appropriate regulatory mechanism is a general permit (Waste Discharge Requirements or NPDES permit) that would apply to *all* unpaved roads in the San Diego Region, rather than only those that are under the jurisdiction of the Copermittees.

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The Copermittees request that Sections F.1.i, F.3.a.(11) and F.3.c.(5) regulating unpaved roads be deleted from the draft MS4 Permit.

However, should the Water Board insist on retaining unpaved road requirements in this Permit, the Copermittees request the following revisions. These revisions are needed to ensure that all parties have a clear understanding of the requirements as clarified in Attachment 9. In summary, the Copermittees request:

- Clarification that these requirements apply to those unpaved roads that the Copermittees maintain in their road system.
 - This should be commonly understood, but the clarification is important to include due to complex legal limitations and rights associated with access, ownership, and maintenance of unpaved roads.
- Removal of language that specifies specific BMPs that must be implemented.
 - Specifying the method of compliance is prohibited pursuant to CWC Section 13360, and inappropriately forces the Copermittees to adopt particular solutions that may not best fit the situation.
- Removal of requirement for BMPs for private unpaved roads.
 - The proposed requirements would require the creation of an additional and unnecessary program element addressing privately owned unpaved roads. The Copermittees believe that a focused public outreach program should be implemented to educate property owners and associations about the need to properly maintain unpaved roads. This education program combined with existing IC/ID enforcement capabilities seems a more reasoned and responsible response to addressing this issue.

Should Sections F.1.i, F.3.a.(11) and F.3.c.(5) regulating unpaved roads not be removed from the Permit, the Copermittees request they be modified as noted above. Specific redline edits to address the requested changes are contained in Attachment 9.

Post-Construction BMP Inspections

Section F.1.f of the draft MS4 Permit includes new requirements for the Copermittees to verify that Post-Construction BMPs are being appropriately maintained. The new requirements appropriately develop a risk-based approach to inspections, defining eight factors that the Copermittees must consider in determining 'high-priority' projects.

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However, language in Section F.1.f.(2)(a) removes that discretion by stating:

{ *'At a minimum, high priority projects include those projects that generate pollutants (prior to treatment) within the tributary area of a 303(d) listed waterbody impaired for that pollutant; or those projects generating pollutants within the tributary area for an observed action level exceedance of that pollutant.'*

This language is excessively broad, and will require virtually all sites in the watershed to be designated as 'high priority' and, therefore, subject to annual inspections. This language is inconsistent with the goals of a socially responsible and affordable permit and should be modified for several reasons:

- Inspections frequencies should be based on risk of discharge. Annual inspections are not needed for all sites that *generate* a specific pollutant. For example, if a site generates a pollutant associated with 303(d) listing, but the site retains runoff onsite or stores those pollutants indoors, annual inspections would be unnecessary. However, sites that store 303(d) listed pollutants outdoors or otherwise have a high risk of discharge should be inspected more frequently.
- The language dilutes Copermittee resources by requiring annual inspections of low-risk sites, preventing the Copermittees from appropriately concentrating resources on problematic sites/sources. This is because when an action level is exceeded then all parties in the watershed are assumed guilty until proven innocent.

While the Copermittees are not opposed to implementing a program to verify that these BMPs are being maintained, it is critically important that they be provided the flexibility to determine which sites warrant annual inspections. **Specifically, the Permittees request that the language in F.1.f.(2)(a) be amended as follows prior to adoption of the Permit:**

*At a **minimum**, high priority projects include those projects that ~~generate pollutants (prior to treatment) within the tributary area of a 303(d) listed waterbody impaired for that pollutant; or those projects generating pollutants within the tributary area for~~ have been determined to be the source of an observed action level exceedance. ~~of that pollutant.~~*

Commercial and Industrial Inspections

Section F.3.b. of the draft Permit includes requirements to inventory and inspect Commercial and Industrial businesses. The draft Permit expands upon existing inventory and inspection requirements in two problematic ways:

- It requires significantly more businesses to be inspected, and

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- It includes new requirements specifying what the Copermittees are required to inspect when they are onsite.

More inspections

Sections F.3.b.(1)(a)(i) and (ii) identify 42 categories of businesses that must be inventoried and inspected based on risk of pollutant discharge. However, Section F.3.b.(1)(a)(iii) adds virtually any business in the Permit area, independent of pollutant discharge risk:

'All other commercial or industrial sites/sources within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in Attachment C of this Order) or that generate pollutants tributary to an observed exceedance of an action level.' (Bold emphasis added)

In effect, section F.3.b.(1)(a)(iii) adds the following additional businesses:

- EVERY business that is adjacent to (or within) an Environmentally Sensitive Area (ESA), regardless of whether the business generates or discharges any pollutants, and
- EVERY business that 'generates' pollutants which happens to be upstream of an action level exceedance, *regardless* of whether the site has ever *discharged any* pollutants.

This language expands the list of sites far beyond the current requirements, and well beyond those sites that actually pose a threat to water quality. This is clearly unnecessary and should be removed for several reasons:

- It inappropriately separates 'risk' from the 'response', by requiring the Copermittees to inspect businesses irrespective of the risk that the business poses to water quality. For example, this language would require the Copermittees to expend resources and time inspecting hair salons, office buildings and other activities that happen to be adjacent to an ESA. This inappropriate broad-brush approach to permitting actually works to discredit the Copermittees' NPDES programs and dilute resources, rather than enhancing protection of water quality.
- It will further remove the flexibility that the Copermittees need to be able to re-allocate resources to inspecting and following up with sites/sources that are problematic.

Therefore, the Copermittees request that the language in F.3.b.(1)(a)(iii) be amended as follows prior to adoption of the Permit:

All other commercial or industrial sites/sources ~~within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as~~

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defined in Attachment C of this Order) or that generate pollutants tributary to that have been determined to be the source of an observed exceedance of an action level.

Additional items to review during inspections

Section F.3.b.(4)(a) specifies what the Copermittees must review when performing an inspection. The new requirements in subsections (i) and (ii) to review BMP implementation plans, and review facility monitoring data, respectively, are an unnecessary new mandate. They should be removed for several reasons:

- The requirements burden the Copermittees with reviewing information that is required under General Permits and is the responsibility of the Regional Board to enforce.
- The requirements would significantly increase the inspection time for sites with General Permits and endanger an existing collaborative inspection program (Compliance/Assistance Program (CAP)) that leverages the time highly trained Environmental Health Inspectors spend onsite for Certified Unified Program Agencies (CUPA) and Food Services inspections to also conduct NPDES inspections. The CAP program not only utilizes highly trained Environmental Health inspectors, but also regionalizes the inspections and, therefore, provides multiple benefits including uniformity, reduction in total number of inspections and higher-quality inspections. The Environmental Health HazMat inspection program administrators have indicated that they cannot accommodate the additional time required to implement the new requirements, as they would unduly cut into their ability to meet their own state-mandated inspection frequencies.
- By virtue of eliminating the CAP program, the requirements would effectively mandate a more fractured and disconnected set of inspections for the businesses, contrary to CAL EPA mandates for consolidated inspections, and in turn diluting the effectiveness of the program.

The Copermittees request that the language in F.3.b.(1)(a)(iii) be amended as follows prior to adoption of the Permit:

- (a) *Inspection Procedures: Inspections must include but not be limited to:*
- (i) *~~Review of BMP implementation plans, if the site uses or is required to use such a plan;~~*
 - (ii) *~~Review of facility monitoring data, if the site monitors its runoff;~~*
 - (iii) *Check for coverage under the General Industrial Permit (Notice of Intent (NOI) and/or Waste Discharge Identification Number), if applicable;*
 - (iv) *Assessment of compliance with Copermittee ordinances and Copermittee issued permits related to runoff;*
 - (v) *Assessment of the implementation, maintenance and effectiveness of the designated minimum and/or enhanced BMPs;*

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Retrofit

Section F.3.d. proposes a program to develop an inventory of existing developments that may be candidates for future water quality retrofits. The requirement goes on to encourage the Copermittees to collaborate with local property owners to promote urban retrofit in an effort to accelerate reductions in pollutant loading from existing urban areas.

Although laudable, this requirement has two significant problems:

- 1) The program is self-defeating as it contains no "carrots" to lure private property owners into participating in the program. Any property owner that is interested in volunteering in this effort would be required to fully comply with all provisions of the draft MS4 Permit. This includes preparation of compliance documents such as SSMPs, LID and hydromodification studies, subjecting themselves to additional regulatory scrutiny through business and BMP inspection programs required by the MS4 Permit, and otherwise incurring a myriad of costs and requirements. These costs and requirements would provide a strong disincentive to participate in a retrofit program. This program will only work if it is modified to remove these disincentives.
- 2) Current and projected economic conditions will limit the interest and participation of private property owners. Long-term economic predictions for Riverside County indicate that assessed valuations and property values will likely remain stagnant for the term of this Permit. Similarly, sales tax and unemployment are not expected to significantly improve either.

Without Co-Permittee resources to supplement private retrofit projects, the current economic disincentives for private redevelopment that are built into the program and the current impact of the economy on private property owners, there is no real value to the program.

PREFERRED POLICY CHOICE: The Permittees strongly request that this program be deleted for the aforementioned reasons.

Alternatively, and at minimum, the Copermittees request that the schedule for completion of the retrofitting program be revised to provide for development during the term of the Permit and submittal of the proposed program with the next ROWD. This will allow the Copermittees to defer expenditures related to development of the program until later in the Permit term when it is hoped that economic conditions and local revenues will improve. The Copermittees expect few opportunities for retrofit until the economy improves. Due to the Copermittees' limited ability to require retrofit on private property, our best opportunities for retrofit may be associated with approvals of proposed modifications of existing developments.

ALTERNATE POLICY CHOICE: If the Retrofit requirements are not removed, the Copermittees request that the Regional Board modify Section F.3.d. as follows:

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Each Copermittee must develop and implement a retrofitting program that meets the requirements of this section upon submittal of the ROWD.

Irrigation Runoff

The draft MS4 Permit categorically prohibits the discharge of landscape irrigation; irrigation water; lawn watering; (collectively 'irrigation runoff') and non-emergency fire fighting flow runoff to the MS4. The basis for this requirement comes from the current Orange County stormwater permit within the San Diego Region (NPDES No. CAS0108740), which prohibits such discharges.

Although irrigation runoff may have been shown to be a problem in South Orange County, it has **not** been shown to be causing problems in receiving waters in the Santa Margarita Region. Attachment 6 summarizes the unique conditions and other facts that warrant the restoration of irrigation runoff as a non-prohibited non-stormwater discharge category. It is important to reiterate the three key points made in Attachment 6:

- Unlike the watersheds in South Orange County, the Santa Margarita Region is an ephemeral watershed;
- Unlike South Orange County, the Copermittees have **not** identified landscape irrigation, irrigation water or lawn water as an actual source of pollutants or conveyance of pollutants to waters of the U.S.;
- The draft MS4 Permit requires Copermittees to eliminate irrigation runoff **TO THE MS4**, which by definition, requires elimination of discharges to streets, curbs and gutters.

As noted above, the prohibition appears to hold the Copermittees responsible for any amount of irrigation runoff discharged to the curb and gutter, *regardless* of whether or not the discharge ever reaches receiving waters or causes or contributes to the exceedance of a water quality standard. This fact, combined with the fact that irrigation runoff has not been shown to be causing impairments in the local receiving waters, will make enforcement difficult to justify with residents and will likely result in community outrage over bans on irrigation. Further the Copermittees are not water purveyors, and as such, have little control over residential irrigation runoff outside of sending code enforcement officers out to look for incidents of excessive irrigation runoff. This is a very inefficient use of resources. In any event, the provisions as written will do little for water quality but potentially much for community outrage against water quality programs. The Copermittees do not believe this is the intent of the Board.

It is further worth noting that the Permit already contains an investigation and remediation process via Non-Stormwater Action Levels (NALs) by which the Copermittees will identify the source of problematic non-stormwater discharges. Should the source be found to be a conditionally exempt non-stormwater discharge, the permit requires the Copermittees to address that discharge or the entire category of discharges as appropriate. By allowing the NAL process to determine when and where

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conditionally exempt discharges need to be prohibited, the Copermittees are better positioned to justify any enforcement actions.

PREFERRED POLICY CHOICE: the Copermittees request that the Regional Board restore the conditional exemption for landscape irrigation, irrigation water and lawn watering as outlined in Attachments 6 and 7.

Alternatively, if the Regional Board nevertheless insists on prohibiting Irrigation Runoff, the Copermittees request that the draft MS4 Permit be revised to allow for irrigation runoff to be managed as a JRMP program, rather than as a prohibited discharge to the MS4. This alternative request is consistent with how the Permit currently deals with non-emergency fire fighting discharges, which was also removed from the list of non-prohibited non-storm water discharges. The Executive Officer stated that he would be open to consideration of a program for irrigation runoff that would address discharges from the MS4. This alternative approach allows the Copermittees to develop a program that focuses on irrigation runoff problem areas, as opposed to holding the Copermittees responsible for eliminating any instant case of over-irrigation to a street independent of threat to receiving water quality.

ALTERNATIVE POLICY CHOICE: The Copermittees request that the Regional Board clarify that irrigation runoff is only prohibited where it is discharged *from* an MS4 (into receiving waters) by adding the following language:

B.4. As part of the JRMP, the Copermittees must develop and implement a program to address pollutants from landscape irrigation, irrigation water and lawn watering identified as significant sources of pollutants to waters of the United States.

Legal Issues

The Copermittees have identified legal issues that raise fundamental questions regarding several of the key elements of the Tentative Order.

The Copermittees request review of the legal issues and revision of the Tentative Order prior to adoption.

Each of the legal issues and requested adjustments and justifications for each requested revision is further discussed in Attachments 7 and 8 to this letter.

CONCLUSION

It is fundamental that the MS4 Permit be economically, technically, and legally feasible. To be credible, and to pass legal muster, MS4 Permit requirements must demonstrable a nexus to water quality improvements. Instead the current requirements, although well intended but not always well

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developed, will put the Copermittees in non-compliance since we cannot afford to implement all the requirements and consequently this will not lead to water quality improvement.

The present economic crisis has made daily headlines over the past three years and Riverside County has been identified as the 11th most impacted county in the nation. In the ROWD and throughout the development of the draft MS4 Permit, the Copermittees have provided abundant publicly available information regarding the impact of this crisis on their revenues, staffing, and programs. Virtually every program and service, including public safety services, has been impacted, and others have been eliminated. Contingency reserves have been depleted to the lowest levels allowable to maintain operations. At this point, the Copermittees cannot increase water quality compliance spending without real risks to reducing spending on existing state and federal mandates or other much-needed local programs and services. As proposed, the draft MS4 Permit is economically infeasible.

In an effort to promote a viable 4th-term MS4 Permit, the Copermittees proactively engaged Regional Board staff in a collaborative dialogue with the intent of developing an economically feasible MS4 Permit that was protective of receiving water quality in the Santa Margarita Region. However, the following constraints have limited the benefits of the process:

1. The discussions were curtailed because the Board expected the draft MS4 Permit to be heard in October;
2. The Board had adopted the South Orange County MS4 Permit as a "model" permit, and, therefore, would have to approve any major revisions to the provisions of that Permit; and
3. The inclusion of several new provisions of the draft MS4 Permit addressing unpaved roads, inspection programs and monitoring requirements go well beyond the Orange County Permit.

As noted in the Executive Summary, the MS4 Permit adopted for South Orange County was ultimately developed for a region with substantial coastal resources and perennial streams, twice the population, significantly higher property tax revenues, and more affluent tax payers.

By contrast, the ephemeral conditions found in the Santa Margarita Region result in stream channels that are dry during dry weather conditions and receive less rain during wet season conditions. The stream flow conditions in the Santa Margarita Region are entirely unlike the significant perennial flow conditions found in South Orange County. The proposed changes contained herein address these realities. The proposed changes also address necessary changes to ensure that the Copermittees can continue to afford implementation of the draft MS4 Permit given the significant economic disadvantages faced by the Santa Margarita Region, disadvantages that have been exacerbated by the impacts of the recession.

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The requirements in the Permit must protect beneficial uses in a cost effective manner. It is always a balance to protect water quality and avoid unnecessary increases in program compliance costs. Balancing local water quality needs and funding limitations should be paramount in the current economic climate. Proposed program expansions must be carefully weighed against economic realities and be justified by conditions actually found in the Santa Margarita Region. As described, unpaved roads and business inspections have been effectively addressed by existing programs, yet the draft MS4 Permit proposes requirements that can only be met by establishment of new compliance programs and, in the case of the business inspections, elimination of the highly effective CAP.

The legislature created Regional Boards to protect our beneficial uses while carefully considering the technical and economical feasibility of such protection. Even in the best of economic times, state and local government must carefully manage public revenues. A policy-level decision by the Regional Board is necessary to direct staff to work with the Copermittees to address the comments contained herein. The Copermittees request your support in our effort to develop an economically, technically, and legally feasible MS4 Permit that is appropriate to the Santa Margarita Region. As noted in the opening Executive Summary of this comment letter we specifically request that you direct Regional Board provide staff with direction to resolve the issues identified in this letter and attachments.

Thank you for your time and consideration. We look forward to discussing this issue further at the October 13th hearing.

Very truly yours,



JASON E. UHLEY
Chief of the Watershed Protection Division

JEU:bjp

Attachment 2: Economic Assessment

Economic Assessment Draft 2010 Santa Margarita Region MS4 Permit September 2, 2010

The Draft Municipal Separate Storm Sewer System Permit (Draft Tentative Order No. R9-2010-0016; NPDES No. CAS0108740) for the Santa Margarita Region of Riverside County (draft Permit) proposes new and expanded compliance requirements that would significantly increase the Copermittee compliance costs. Further, the draft Permit expands the compliance requirements and compliance costs beyond those required by the recently adopted MS4 Permit for South Orange County, a more populous and affluent area with significantly greater tax revenues to support the compliance programs. These additional requirements and costs are proposed at a time when the Copermittees have been severely impacted by the most significant economic downturn since the Great Depression. These impacts include high levels of unemployment and homes in default, sharply reduced Copermittee revenues and increased demands on public services. Moreover, these impacts have fallen disproportionately on communities in Riverside County relative to South Orange County and San Diego County, due in large part to the crash of the housing market.

Due to their reduced revenues, the Copermittees budgets and staffing have been significantly reduced for virtually all services and programs operated by the Copermittees, including police, fire, and paramedic services. Funding has been focused on essential public safety and existing state and federally mandated programs. Increases in funding for the water quality mandates contained in the draft Permit can only come from reduced funding for these basic priorities. Therefore, the expanded compliance requirements proposed in the draft Permit are economically infeasible. This paper describes the general economic conditions in the Santa Margarita Region, the Copermittees' current budget and budget projections, their assessment of projected increases in compliance costs, and economic forecasts provided by other parties.

POPULATION

Riverside County, which is subject to three NPDES MS4 permits, has a total population of 2,153,186. However, only 289,765 persons (approximately 13 percent) reside within the Santa Margarita Region.¹ Population and housing projections for the Santa Margarita Region are summarized in Table 1. MS4 discharges in Riverside County are regulated by separate NPDES stormwater permits issued by the Colorado River, Santa Ana, and San Diego Regional Water Quality Control Boards. Although these three MS4 permits address the same federal regulatory requirements, the provisions in the draft Permit are often not well aligned with the requirements of the other two MS4 permits. As such, the cost for complying with those requirements is borne entirely by the 289,765 residents within the Santa Margarita Region.

¹ Riverside County Projections 2010 (RCP-10), Transportation and Land Management Agency, Administrative Services, Center for Demographic Research, June 23, 2010.

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Table 1: Santa Margarita Region Population & Housing Projections 2010²

Jurisdiction	Population / Housing Units		
	2010	2015	2020
Murrieta	101,680/34,812	105,513/36,162	109,343/37,512
Temecula	102,727/33,194	109,136/35,270	112,242/36,321
Wildomar	32,720/11,123	37,289/12,722	42,475/14,537
Unincorporated	52,638/17,546	54,584/18,195	59,878/19,959
Total	289,765/96,675	306,522/102,349	323,938/108,329

CURRENT ECONOMIC CONDITIONS

Unemployment

Higher unemployment directly impacts the revenue streams available to the County and the Cities for funding programs and services. As illustrated in Figure 1, the unemployment rate in Riverside County is currently 15.3 percent, which is 42 percent higher than the unemployment rate in San Diego County (9.8 percent) and 56 percent higher than the unemployment rate in Orange County (9.8 percent).³

SOURCES OF LOCAL REVENUE

The Copermittee's primary revenue sources for implementation of programs and services are property taxes, sales taxes, and development/construction permit fees. Each of these sources has declined substantially since the beginning of the recession in FY 2006/2007. The 2009 per capita income in Riverside County (\$29,177) is 31% lower than the per capita income in San Diego County (\$42,094) and 32% lower than the per capita income in Orange County (\$46,898).⁴ The population of the Santa Margarita Region (289,765) is 48% lower than the population of South Orange County (553,161⁵) and 91% lower than the population of San Diego County. As a less affluent area with relatively small

² Riverside County Projections 2010 (RCP-10), Transportation and Land Management Agency, Administrative Services, Center for Demographic Research, June 23, 2010.

³ Monthly Labor Force Data for Counties, July 2010 – Preliminary, Labor Market Information Division, Employment Development Department, August 20, 2010. <http://www.calmis.ca.gov/file/lfmonth/countyur-400c.pdf>

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population, the Santa Margarita Region has far less revenue than South Orange County and San Diego County to fund local programs and services, and MS4 permit compliance costs.

Per Capita Income⁶

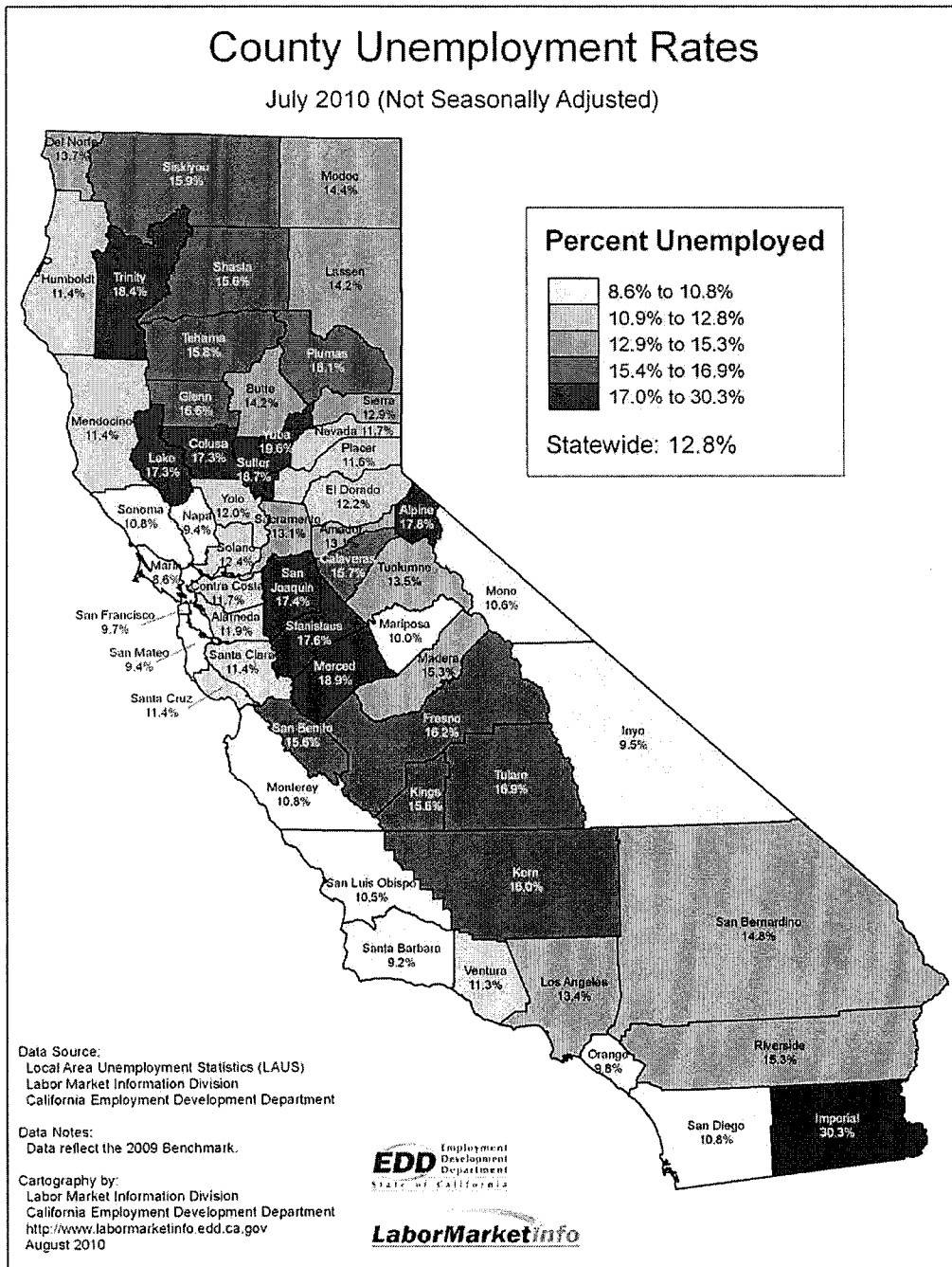
	Riverside County	Orange County	San Diego County
2006	29,148	49,098	42,110
2007	29,950	49,790	43,816
2008	30,088	49,650	44,438
2009	29,177	46,898	42,094
2010 (forecast)	28,117	47,435	42,651

Figure 1. Unemployment Rates of California Counties (title for figure on next page)

⁴ Economic Forecast, Los Angeles Economic Development Corporation, July 2010.

⁵ Richard Boon, County of Orange, personal communication, September 1, 2010.

⁶ Economic Forecast, Los Angeles Economic Development Corporation, July 2010.

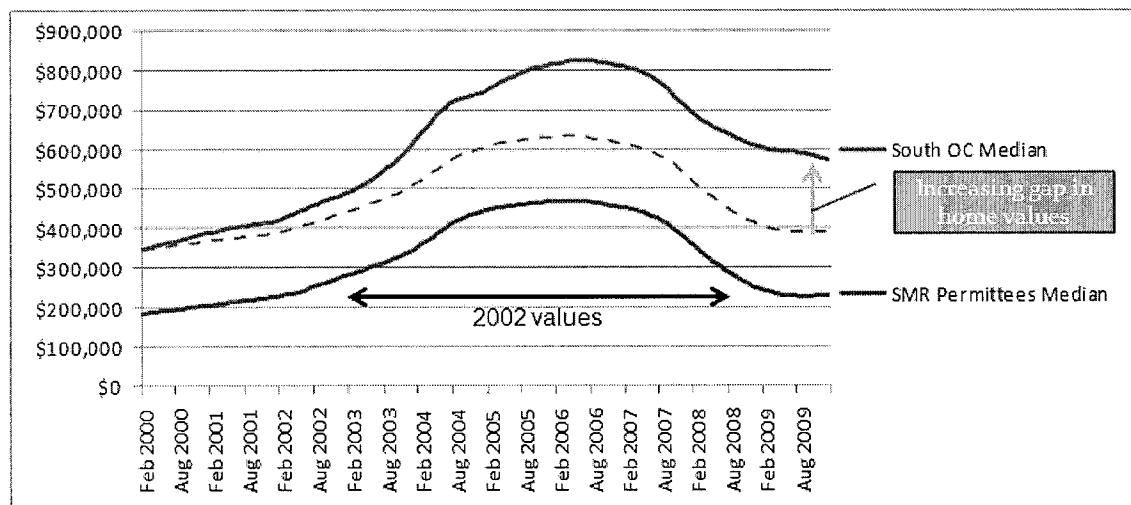


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Home Values/Property Tax Revenue

Property tax revenue, which is a major source of funding for the County and Cities, is a direct function of the total inventory of real estate and the assessed values of the real estate. With a small population relative to South Orange County and San Diego County and a limited amount of commercial and industrial property, the Santa Margarita Region is supported by a much smaller inventory of real estate from which to obtain property tax revenue. The high rate of foreclosures in Riverside County has also resulted in significant declines in real estate values and, consequently, property tax revenue. The Riverside County Auditor-Controller projects that property values will fall over 10 percent in FY 2009-10 and could fall further in FY 2010/2011.⁷ Figure 3 illustrates the decline in median home values in the Santa Margarita Region and South Orange County. Although home values in both areas have declined, home values in the Santa Margarita Region have declined at a greater rate and the difference in home values between the two areas has grown with the recession.

Figure 3. Median Home Values⁸



The Inland Empire (Riverside and San Bernardino Counties) registered more defaults and foreclosures than any other area of Southern California.⁹ The Inland Empire was ranked No. 5 in nationwide foreclosure activity during the first half of 2010, with almost 4.5 percent of households in default. A total 63,717 mortgage default notices, auction sale notices, and bank repossessions were recorded in the Riverside-San Bernardino-Ontario metropolitan area between January and June 2010, according to RealtyTrac. Accordingly, one in 23 households were in some stage of foreclosure during this six-month period. Additionally, almost 45 percent of homeowners with a mortgage in Riverside and San Bernardino Counties owe more on their homes than the homes are worth. As illustrated in Figure 3, Orange County

⁷ Comprehensive Annual Financial Report of the County of Riverside for the Fiscal Year Ended June 30, 2009, Robert E. Byrd, Riverside County Auditor-Controller, December 9, 2009. P. vii. http://www.auditorcontroller.org/opencms/publications/FinancialPub/cafr/CAFR_2009/Introductory.pdf

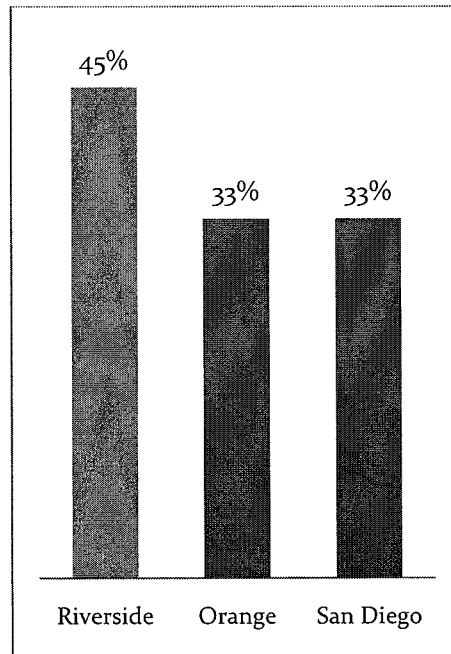
⁸ Source: www.zillow.com

⁹ Economic Forecast, Los Angeles Economic Development Corporation, July 2010, p. 50.

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and San Diego County have not been impacted by "upside-down mortgages" to the same extent as has Riverside County.

Figure 3. "Upside-Down Mortgages"



One expert, Professor Mason Gaffney of the UC Riverside Economics Department believes that the housing market is in a vicious cycle simply because there are too many homes. According to Professor Gaffney, because demand is down, prices will go down, and more people will go "upside-down" on their mortgage, and then go into foreclosure. Professor Gaffney estimates that the bottom of the housing market will not be seen for another three years, due to the previous overbuilding in Riverside County.¹⁰

Although the recession has impacted property values throughout Southern California, Riverside County remains at a distinct disadvantage relative to Orange and San Diego Counties. The average home value in Riverside County is \$207, 900, which is 58% less than the average home value in South Orange County (\$499,500) and 45% less than the average home value in San Diego County (\$378,800).¹¹ As a result, property tax revenues per home in Riverside County are 58% less than in Orange County and 45% less than in San Diego County. The larger populations and number of homes in Orange and San Diego Counties multiply this disparity in property tax revenue that can be used to help fund NPDES compliance programs. Based on population and average home value, South Orange County generates over four times the property tax revenue generated in the Santa Margarita Region, and San Diego County generates 20 times the property tax revenue of the Santa Margarita Region. Clearly, the Copermittees in the Santa Margarita Region receive significantly less property tax revenue than either Orange or San Diego Counties and are less able to fund additional MS4 permit compliance costs.

¹⁰ Ibid.

¹¹ Zillow Home Value Index – Riverside County, Zillow.com. August 10, 2010.

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Sales Tax Revenue

The next most significant revenue source for program funding is sales tax. Sales tax revenue is a function of population and relative income. As described, the Santa Margarita Region has a less affluent and smaller population than South Orange County and San Diego County on which to generate sales tax revenue.

The high levels of unemployment in Riverside County have reduced disposable income which has further depressed sales tax revenues. Retail sales in Riverside County fell by nearly 27% in 2008 and 2009.¹² Statewide sales and use tax revenues for the second quarter of 2010 declined approximately 10.4 percent. Additionally, taxable sales for the first quarter of 2010 remained flat compared to a year earlier.¹³ Although data specific to the Santa Margarita Region is not available, it is anticipated that taxable sales have been impacted more significantly than in Orange and San Diego Counties due to the higher unemployment rate in Riverside County.

Taxable sales are directly proportional to sales tax revenue. Based on data presented in the Los Angeles Economic Development Corporation's July 2010 Economic Forecast, South Orange County generates 2.6 times the taxable sales generated in the Santa Margarita Region and San Diego County generates 13.3 times the taxable sales of the Santa Margarita Region. Clearly, the Copermittees in the Santa Margarita Region receive significantly less sales tax revenue than either Orange or San Diego Counties and are less able to fund additional MS4 permit compliance costs.

Development and Construction Permit Fees

Prior to the recession, development and construction permit fees funded a variety of compliance activities related to review, approval, inspection and enforcement associated with development and construction activities. Since the recession, revenues from these fees have been virtually eliminated. As a result, Copermittee inspection and enforcement of development and construction activities, including abandoned projects, has been funded by the Copermittees' general funds. General fund budgets are in turn supported by sales and property tax revenues which, as described, have declined significantly.

New Fees or Taxes

Another potential source of funding would be the establishment of a new fee or tax. Such revenues would be subject to the requirements of Proposition 218. Recent efforts to pass supplemental fees have been mixed and given the current economic conditions, this option appears infeasible. For example, on the March 2006 ballot, an attempt by the City of Encinitas to pass a Clean Water Fee was defeated by the voters.¹⁴ It is notable that this rejection of a Clean Water Fee occurred prior to the recession in a relatively affluent coastal city.

Economic Forecasts

The Riverside County Executive Office assessed Riverside County's economy in a report to the Board of Supervisors submitted with the FY 2010/2011 Recommended Budget. In this assessment, it was noted that the economy is still staggering and that economic news has been mixed. Although a slightly rising

¹² Economic Forecast, Los Angeles Economic Development Corporation, July 2010, p. 51.

¹³ News release "Local Sales Tax Allocations Reduced in Many Areas of the State," California Board of Equalization, August 27, 2010. <http://www.boe.ca.gov/news/2010/92-10-G.pdf>

¹⁴ FY 2008-2009 JURMP Annual Report, City of Encinitas, p. 10-3.

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stock market and other nationwide measures could be interpreted to signal improvement, persistently high unemployment and personal and national debt call for caution, and a double-dip recession is possible. Locally, while some experts project revenues will shrink again in FY 2011/2012, Riverside County's economic consultants foresee a long and gradual muted recovery and the County will be managing with drastically reduced budgets for an extended period. Budget reductions of approximately \$21 million are projected for FY 2011/2012. The County projects that it will see a balanced but significantly reduced budget in FY 2012/2013, with a total budget of \$670 million (compared to \$736 in 2007). Based on this assessment and reports in the media, it appears that the economy in Riverside County will stabilize at a reduced level and may not recover during the term of the SMR MS4 Permit.

Projected Increases in Compliance Costs

The draft Permit proposes a significant expansion of compliance requirements that would significantly increase the Copermittee compliance costs. The draft Permit was developed by starting with the MS4 Permit for South Orange County. The requirements proposed in the draft Permit that would significantly increase compliance costs include:

Regional Compliance Requirements

- Monitoring and special studies (See Attachment 4)
- Hyrdomodification Management Plan (including monitoring)
- Retrofit study
- Other general program updates (JRMP)

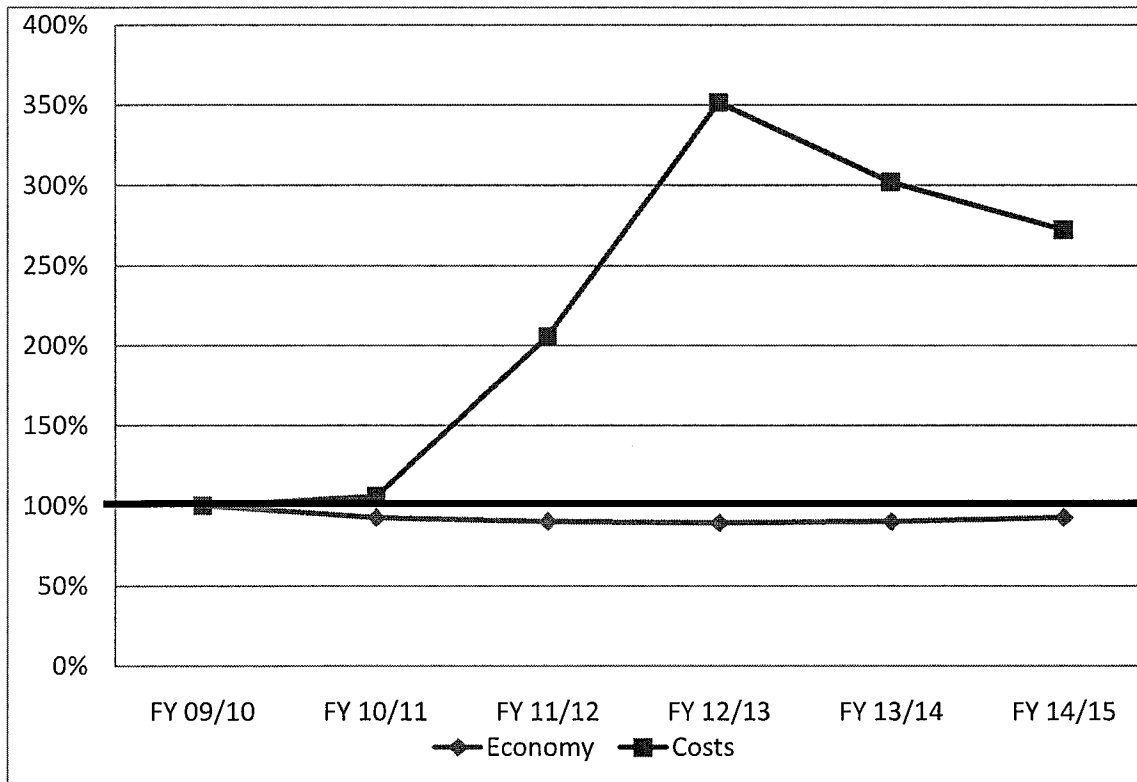
Individual Copermittee Compliance Requirements

- Enforcement of Irrigation runoff prohibition (See Attachment 6)
- Significantly Increased business and BMP inspections
- BMP retrofit requirements
- Regulation of unpaved roads (See attachment #5)
- Hydromodification requirements
- Monitoring Source Identifications
- Expanded IC/ID requirements

Estimates for implementation of the regional compliance requirements have been prepared and Figure 4 illustrates the disparity between projected Copermittee revenues and costs for implementation of the proposed regional programs. Due to the fact that calculating costs for implementing entirely new programs is excessively difficult, cost estimates for the implementation of individual Copermittee compliance requirements have not been completed, although it is expected that their individual costs will parallel the regional costs presented in Figure 4.

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Figure 3. Projected Revenues vs MS4 Permit Compliance Costs



ECONOMIC SUMMARY

As all sources of revenues have been reduced significantly, the Copermittees have been required to reduce staffing through layoffs, attrition and furlough; reduce funding across the board for public services and programs, and, in some cases, completely eliminate public services and programs. For example, it is estimated that County of Riverside staffing has been reduced by 2,500 since FY 2006/2007 mostly in the form of early retirement and layoffs. It is estimated that an additional 500-700 staff positions will be eliminated by the County in FY 2011/2012.

Due to the loss of revenue, virtually all Copermittee programs or services have been reduced, including fire and police. As an example, the Riverside County FY 2010/2011 Recommended Budget for Riverside County proposes:

- Public safety department cuts of 3 – 5 percent
- Other department cuts averaging 19 percent
- Continued staff reductions

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After three years of modest cuts culminating in a 25% decrease, the Board of Supervisors approved an additional 19% cut in the general fund and a 4% cut to public safety for FY 2010/2011. These additional cuts will decrease spending by an additional \$71 million. The remaining budget gap will be filled from general fund reserves set aside for economic uncertainty. Since FY 2006/2007 Riverside County general fund reserves have declined from over \$300 million to \$30 million. The County cannot decrease the reserve fund any further without affecting the County's ability to obtain credit. According to the Associated Press Economic Stress Index, of counties with populations of at least 25,000, Riverside County was identified as the eleventh most economically stressed county in the nation based on its June 2010 stress scores.¹⁵

All County departments have been directed to only provide those core services that the County is mandated to provide. At this point, the Copermittees are struggling to maintain the existing compliance programs required by the 2004 MS4 Permit with available staff and funding. Implementation of expanded or new Permit compliance requirements would require the Copermittees to either further reduce implementation of other mandated programs or reduce the level of implementation of MS4 Permit compliance programs - at risk of receiving an NOV and ACL. In other words, the Copermittees cannot increase MS4 Permit compliance expenditures without directly impacting compliance with other state or federally-mandated programs.

CONCLUSION

The draft Permit was developed by starting with the MS4 Permit for South Orange County. This represented a significant expansion of compliance requirements and compliance costs relative to the 2004 Permit issued to the Copermittees in the Santa Margarita Region, and by no means are the costs incremental in nature. South Orange County is a permit area with twice the population, 2.6 times the sales tax revenue, and over four times the property tax revenue of the Santa Margarita Region. The draft Permit was then expanded to include additional compliance and monitoring requirements, further increasing compliance costs. Plainly, it is unrealistic to impose greater, or even the same Permit requirements on the Santa Margarita Region, as have been imposed on South Orange County.

In addition to having a lower property tax revenue based on lower property tax base and lower per capita retail sales, the Santa Margarita Region has also been hit harder by the recession, which has further diminished funding resources. It is projected that revenues will continue at a reduced level for an extended period with recovery not expected within the term of the Permit term. Therefore, the available resources to fund public safety, existing state and federal mandates, and expanded water quality permit requirements are much less than San Diego and Orange Counties.

The economy has resulted in reductions of reserves to minimum levels and virtually all local services and programs have been reduced or eliminated. As increases in funding for the water quality mandates contained in the draft Permit can only come from reduced funding for public safety, existing state and federal mandates, the expanded compliance requirements proposed in the draft Permit are economically infeasible.

¹⁵ "20 Most Stressed, 20 Least Stressed Counties, The Associated Press, August 2, 2010.

Attachment 4: Monitoring and Reporting Program Requirements

Introduction

Tentative Order R9-2010-0016 (draft MS4 Permit) includes proposed requirements within Attachment E Monitoring and Reporting Program (draft MRP) that are not necessary to address management questions related to water quality, beyond requirements dictated to Orange County and beyond the Copermittees' ability to fund. Due to the expansion of monitoring requirements proposed by Regional Board staff, costs for monitoring program compliance are two and half times more expensive for Santa Margarita Region residents than to South Orange County residents. The Copermittees recognize monitoring and data collection are necessary to assist with program effectiveness assessment and address stormwater management questions within the Santa Margarita Region. However, the proposed revisions provided within this paper allow these assessments and questions to be answered in a more cost effective manner while retaining all major components of the draft MRP. The proposed revisions prune requirements that are not necessary to answer key management questions for this MS4 program, eliminate elements that may be of general interest and therefore should be handled at a more regional, state or federal level and/or correct provisions that are contrary to, or not aligned with, methods of practice established by the Southern California Stormwater Monitoring Coalition or other MS4 Permits approved by your Board. The changes proposed herein result in annual savings of approximately \$780,000 while maintaining the integrity of the MRP. Even with these proposed revisions, this MRP is significantly more expensive than the Copermittees' current program.

Table 1 - Cost Savings resulting from proposed MRP changes

Section	Component	Requested Change	Cost reduction
A	Mass Loading Stations	1) Wet Weather - 3 wet -> 2 wet	~\$79,000
		2) Dry Weather - Composite -> Grab	~\$66,000
B	Toxicity Testing (MLS and Bioassessment)	3) 3 organisms -> 2 organisms	~\$14,000
C	Bioassessment	4) 6 stations -> 3 stations	~\$158,000
		5) 2X each -> 1X each	~\$95,000
D	Action Levels	6) 'Representative Number/Percent' -> Representative - and remove 'within each sub area'	~\$241,000
		7) SAL Composites -> Grab	~\$165,000
E	Inland Aquatic Habitat Monitoring	8) Eliminate requirement	~\$140,000
F	Special Studies	9) 6 special studies -> 4 studies, and Replace with more locally appropriate studies	~\$220,000/year
	<u>TOTAL ESTIMATED SAVINGS</u>	Net savings of all recommended changes (annualized)	<u>~\$780,000/year</u>

Note: Red text refers to the requirements that are beyond the MRP requirements in the OC permit.

Attachment 4: Monitoring and Reporting Program Requirements

Draft Monitoring and Reporting Program Requirements

Background

Prior to the release of the first draft of the MRP requirements to the Copermittees, Water Board staff indicated the program would be similar to the South Orange County MS4 Permit (OC Permit) yet scaled appropriately to the Santa Margarita Region. The first draft of the MRP was not released until three weeks prior to the public release draft MRP. To our surprise, instead of being appropriately scaled, the draft MRP actually exceeded the scope and costs of the OC Permit MRP. Due to limited time, Water Board staff recommended the discussions regarding MRP requirements be brought before the Regional Board at the appointed October 13, 2010 Board Hearing. This was particularly frustrating as it was not consistent with our mutual goal to resolve technical issues at the staff level and bring only necessary policy issues to the Regional Board.

One of the most significant issues with the MRP is that the Copermittees proposed several new special studies in the ROWD. The Copermittees moved forward on these studies in good faith, including a \$3,000,000 LID Demonstration and Testing Facility at the District headquarters in Riverside. The final MRP does not recognize any of these efforts, and instead mandates six new special studies and a habitat monitoring program. Initially, Board staff indicated that these six studies were for discussion and that it was not their intent to include all of the studies, however, later Board staff changed their position and mandated all of the studies. Further, the habitat monitoring program was actually removed from the Orange County MS4 Permit due to the addition of the NAL/SAL monitoring which was expected to effectively address the underlying habitat monitoring questions. These unnecessary additions put the Copermittees in the precarious position of having to abandon special studies that were already deemed by local stakeholders to be of critical value to managing stormwater within our region.

Cost Saving Requirement Revisions – Overview

The proposed draft MRP includes additional stations, constituents, data analysis and multiple special studies that exceed other programs such as South Orange County's or established standards of practice. These elements will not add substantively to the understanding of MS4 water quality impacts within the Santa Margarita Region and vastly exceed the ability of the Copermittees ability to pay and staff. Table 1 summarizes the Copermittees' requested revisions to the draft MRP and the costs savings from each revision.

These changes are also critical as the draft MRP proposes a program that exceeds available monitoring staffing and equipment resources. The District is currently in the process of recruiting for budgeted positions that were based on the monitoring program contained in our ROWD. However, review of the MRP has determined that our estimations were woefully inadequate. The MRP special studies and other requirements require scientists and other staff with specialized training and backgrounds that are not readily available. The District will likely have to find staff with generalized knowledge in related fields and spend significant resources training them to be knowledgeable in the science of stormwater management. Even if we were to consult out most of the work, we would still need specialized staff to scope, manage and review the consultants' work. It is not feasible to find, recruit and train the necessary staff and also deploy the proposed MRP in the time allotted. The Copermittees' proposed revisions scale

Attachment 4: Monitoring and Reporting Program Requirements

requirements to a more financially attainable and manageable level. Detailed justifications for each revision are described below.

Cost Saving Requirement Revisions – Section A

Mass Loading Station Monitoring - Attachment E: II.A.1.b & II.A.1.c

Revision: Request wet weather monitoring to be required twice a year instead of three times a year.

Justification: (1) The Water Board Staff has referenced the SMC guidance and indicated not enough data has been collected to warrant a requirement change from three wet weather samples to two. However this guidance states once three wet weather samples have been collected for three years, sampling for two wet weather events is acceptable. This data has been collected by the Copermittees. The Copermittees successfully collected three wet weather events for three reporting periods; in addition, the Copermittees have over 10 years of data to form the basis of future analyses. Although the methods of collection have changed, our statistical analysis indicates that there is no statistically significant difference between data sets collected during prior terms and the current term. (2) The current OC and SD Permits require only two wet weather samples. (3) The Santa Margarita Region is semi arid with ephemeral flows, sampling for a third storm event has proven, and will continue to prove difficult and may result in non compliance due to climate (lack of storm events). (4) The cost to Copermittees to fund a third wet weather monitoring event during this permit term is significant.

Mass Loading Station Monitoring - Attachment E: II.A.1.d

Revision: Request dry weather sampling method to be changed from composite sampling to grab samples.

Justification: (1) The Copermittees currently conduct dry weather sampling using an instantaneous grab sample. The MRP proposes 24-hour composite sampling, which represents a significant cost increase due to the need to construct infrastructure at the sampling sites to secure and facilitate portable automatic sampling equipment. (2) Composite samples will mask illicit discharges which is one of the primary reasons for dry weather monitoring. (3) Due to dry weather flows' steady nature, the flows can be accurately characterized using a grab sample. (4) The SMC Regional Bioassessment Program, which effectively defines the standard of practice for receiving waters monitoring, has found that chemistry samples must be collected at the most downstream transect (Transect A) to be representative of the flow through the assessed reach. This program therefore uses Grab samples collected immediately prior to benthomacrobenthos (BMI) and periphyton sampling. If composite sampling was required, it similarly must be done at the downstream transect; however, the composites would not be representative as they would pick up sediment, nutrients and other pollutants that had been unnaturally introduced by the BMI and periphyton collection activities. This would create an unrepresentative sample and the sampling equipment would be at risk of failure due to the suspension of sediment.

Cost Saving Requirement Revisions – Section B

Toxicity Testing - Attachment E: II.A.1.h

Revision: Request change in toxicity testing from three organisms to two organisms.

Attachment 4: Monitoring and Reporting Program Requirements

Justification: (1) The MRP specified in the OC Permit requires toxicity testing of two organisms and this permit should not go beyond requirements found within the OC Permit due to limited funding and resources. This is an example of a simple change where cost-savings can be realized. (2) The USEPA only has chronic toxicity protocols for *Pseudokirchneriella subcapitata* (formerly, *Selenastrum capricornutum*). Therefore there are no established protocols for the other two species, and data collection results will be difficult to compare to other regions.

Cost Saving Requirement Revisions – Section C **Stream Assessment Monitoring - Attachment E: II.A.2.a**

Revision: Request that three stream assessment stations be monitored instead of six stations.

Justification: (1) The existing MS4 Permit requires three stream assessment stations annually. These stations are our mass loading stations. It should be noted that this is an ephemeral watershed. The current stations were selected because they were the only stations that had flowing water during the bioassessment sampling periods, not because they were necessary representative of urban runoff (although they are downstream of the entire MS4 system). Specifically, during dry weather, none of the current receiving waters stations receive runoff from the MS4 due to the ephemeral nature of the watershed. Similarly, efforts to find flowing water for the Regional Bioassessment Program have been challenging. For example, in 2009, the first year of the program, 35 random sites were evaluated before one perennial site could be identified. In 2010, 39 random sites were evaluated. The final sites that were selected were actually our CURRENT mass loading stations as they were the first randomly selected sites that had flow. This lack of flow was recognized by SCCWRP in establishing the distribution of Regional Bioassessment Stations in southern California. This is why southwest Riverside County is only assigned one Bioassessment station. (2) As is demonstrated above, the Copermittees are not likely to find three additional flowing stations that are indicative of impacts from MS4 discharges. The Permit requirement therefore puts the Copermittees in unavoidable non-compliance with the Permit. (3) The cost of monitoring the additional three stations is substantial, and given the relative size of the MS4 system and population of RC to OC, the additional stations are not appropriate on an environmental, economic or social justice scale.

Stream Assessment Monitoring - Attachment E: II.A.2.b

Revision: Request frequency be changed from twice per year to once per year for stream assessment monitoring.

Justification: (1) The Water Board Staff and Executive Officer agreed to make this change as a trade for the Copermittees participation in the SMC Regional Bioassessment special study. The change was based on findings by the Southern California Coastal Watershed Research Project (SCCWRP) scientists indicating that there is no seasonally significant difference in bioassessment scores. The Copermittees volunteered to implement the Regional Bioassessment Program ahead of the necessary changes to the NPDES MS4 Permit program to reduce the bioassessment sampling events in a good faith effort. (2) To determine if two sampling events are in fact necessary, the Copermittees evaluated the difference in biological community scores between Spring and Fall for data collected at Lower Murrieta, Lower Temecula and

Attachment 4: Monitoring and Reporting Program Requirements

Adobe Creeks during May and October from 2007 through 2009. Utilizing a Two-Way Analysis of Variance of Southern California Index of Biological Integrity (IBI) scores, with season (Spring/Fall) and year (2007 through 2009) as variables, results indicated no statistical difference between years for any of the Permittee's three sites. No seasonal statistical difference in IBI scores ($p \geq 0.19$) was noted within any of the three stations, indicating that the IBI scores were consistent across seasons, regardless of the year. This data confirmed SCCWRP findings that there is not a change in the biological communities between the Spring and Fall seasons. (3) Further, the MRP within the OC Permit states that stations with year-round flow conditions may be monitored in May/June or September/October. Current assessment stations at Murrieta Creek, Temecula Creek, and Adobe Creek are perennial stations. Consistency across programs would denote assessments of these creeks once per year.

Cost Saving Requirement Revisions – Section D

MS4 Outfall Monitoring - Action Levels - Attachment E: II.B.1 and II.C.1.b.(1)

Revision: Request "a representative percentage of the major outfalls within each hydrologic subarea" (**II.B.1**) and "a representative number of major outfalls within each hydrologic subarea" (**II.C.1.b.(1)**) be changed to "representative major outfalls" as shown in the redlines attached to this comment letter.

Justification: (1) The draft MRP requires sampling of a representative number or representative percentage of major outfalls. This is a problematic compliance target as it focuses the program on a particular and open-ended "number" or "percent" of outfalls. By revising the language to require monitoring of "representative major outfalls", the burden is on the Copermittees to come up with a program that is truly representative, without requirements to meet an arbitrary number or percent of outfalls. The Copermittees are concerned about subareas that have many outfalls, which could require sampling of more sites than are economically feasible. These costs could escalate beyond the initial sampling event because if a NAL or SAL exceedance is recorded, source assessments studies are triggered that require additional staff time and resources. If this requirement is not revised, costs will quickly rise beyond the Copermittees' ability to sustain the MS4 compliance program.

MS4 Outfall Monitoring - Action Levels - Attachment E: II.B.1 and II.C.1.b.(1)

Revision: Request the following text revisions in footnote:

"A representative percentage determination must consider hydrologic conditions, total drainage area of the site, population density of the site, traffic density, age of the structures or buildings in the area, and land use types (commercial, residential and industrial), <u>costs</u> and other considerations as appropriate."

Justification: (1) The Copermittees originally asked for clarification on what factors would be considered for "representative percentage" and Water Board staff agreed to cost being included. The failure to include cost as a factor results in a program that reduces resources and diminishes funds quickly. The revision of the above allows for cost to be included through "other considerations as appropriate". (2) Deletion of percentage is consistent with previous comments. (3) Hydrologic conditions, population density of the site, traffic density and age of the structures or building in the area are all proposed

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deletions because each subarea may not be sensitive to these factors and if one of this factors is applicable it will be included under the addition "other considerations as appropriate".

MS4 Outfall Monitoring - Action Levels - Attachment E: II.B.1.a

Revision: Request samples for Storm Water Action Levels (SALs) to be changed from 24-hour composite to grab.

Justification: (1) Composite sampling would result in significant increased cost due to the cost of purchasing additional automatic sampling equipment and constructing the necessary infrastructure to support its use. (2) Grab samples are likely more conservative. The Copermittees propose that grab samples be collected first and then, if a problem is indicated, the Copermittees would specify needed follow-up monitoring in the Source Assessment Monitoring Plan. (3) Freed resources can be dedicated to other key components of the program, such as follow-up source assessment studies.

Cost Saving Requirement Revisions – Section E

High Priority Inland Aquatic Habitat Monitoring - Attachment E: II.D

Revision: Request removal of the High Priority Inland Aquatic Habitat Monitoring requirements.

Justification: (1) This is an entirely new monitoring program. This monitoring program was initially proposed in the Orange County NPDES MS4 Permit, but later deleted when the NAL/SAL monitoring requirement was added. This trade was made as it was expected that the outfall monitoring data from the NAL and SAL program would effectively answer the underlying management question – "are MS4s impairing beneficial uses in priority aquatic habitat areas?" The underlying logic for removing the requirement in Orange County similarly applies here. Given the current economic conditions and the fact that this was considered and deleted from the OC Permit; the Copermittees respectfully request that this requirement similarly be deleted from the Riverside County MRP.

Cost Saving Requirement Revisions – Section F

Special Studies - Attachment E: II.E

Revision: Request alteration of Special Study Program.

Justification: The Draft Permit requires six special studies to be conducted (TMDL Development and Implementation, Sediment Toxicity, Trash and Litter Investigation, Agricultural, Federal and Tribal Input Study, MS4 and Receiving Water Maintenance Study and Intermittent and Ephemeral Stream Perennial Conversion Study). *This is in excess of the four special studies required by the OC MRP.* Given the larger MS4 Permit Area, population and resources available to South Orange County, the additional studies proposed on Riverside County are inappropriate from a social, economic and environmental justice standpoint. (1) Water Board staff acknowledged multiple studies were added to the draft MRP with the intention of that would be eliminated. (2) The issues addressed by these studies are not all specific to the Santa Margarita Region and would be more appropriate to be evaluated as part of a broader regional study, such as the Sediment Toxicity study. (3) The Agricultural, Federal, and Tribal Input Study is specifically inappropriate as it requires the Copermittees to monitor the discharges of other entities subject to separate NPDES regulations. (4) The Intermittent and Ephemeral Stream Perennial Riverside County MS4 Copermittees

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Conversion Study is specifically inappropriate as it incorrectly presumes that such ephemeral streams are actually being converted to perennial systems within the permit area due to MS4 discharges. Some additional specific points include:

- Sediment Toxicity – In the waterbodies found in the Santa Margarita watershed (which are intermittent at best and dry most of the time) the idea of investigating sediment toxicity and its impacts on benthic macroinvertebrates seems a reach. Current sediment toxicity monitoring in the State is focused on year round streams and estuaries (e.g. the Delta). Furthermore the current state of sediment toxicity monitoring is at best in its infancy as is the State's policy regarding Sediment Quality Objectives. It would seem that a more reasonable approach associate with sediment toxicity is to allow the science to catch up with the policy and for the Copermittees to learn from these other statewide efforts.
- Agricultural, Federal, and Tribal Input Study - Ongoing monitoring efforts in the Central Valley and the Los Angeles Regions for the Agriculture Waiver Program are more robust and statistically valid to make any efforts by Riverside County to be pale in comparison and likely insignificant. Likewise, monitoring in watersheds (e.g. Lake Tahoe, and the northwest part of the State) where water bodies are impaired by sediment and where Federal and Tribal land uses have inputs to the impaired water bodies is significant and should take precedent over any efforts in Riverside County. As previously noted, it is inappropriate to require the Copermittees to not only monitor their own discharges, but also expend resources monitoring the discharges of others. The Regional Board has authorities to require these sources to collect their own data and should exercise that authority appropriately if such studies are required.
- MS4 and Receiving Water Maintenance Study - It is likely that every flood control district in the State and Caltrans would be impacted by the MS4 and Receiving Water Maintenance Study; therefore it would be imperative to have a well thought out, comprehensive, and regional study to answer the questions being posed in the MRP. Requiring the Copermittees to take on this responsibility is misleading and will not be sufficient to answer the broad questions being posed in the MRP. A more reasonable approach would be to model a regional program similar to the current SCCWRP efforts to assess hydromodification requirements for southern California.
- Intermittent and Ephemeral Stream Perennial Conversion Study – Finally, review of historical water resource data by the Copermittees (as indicated in the ROWD), USGS and state and federal courts have all found that the construction of Vale and Skinner dams has significantly increased the ephemeral nature of local watersheds, resulting in much drier conditions than naturally occurred. This is why Rancho California Water District is required to discharge raw water down the Santa Margarita River at the County Line. Requiring a study to study the impacts of ephemeral conversion demonstrates a clear lack of understanding of historical and current receiving water conditions. Further, similar to our comment above regarding the MS4 and Receiving Water Maintenance Study, this study is better addressed at a regional or statewide level. It is not possible to develop a sufficient local database to statistically validate any impacts from non-stormwater discharges within any reasonable timeframe. Furthermore any minimal

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monitoring effort that could be provided by the Copermittees would not comprehensively address the questions being proposed in the MRP and would be a waste of resources. Again a regional approach, whether it be SCCWRP or other combination of stormwater Copermittees, would be a more logical and constructive approach to address this issue. The Copermittees have proposed maintaining two of the special studies (TMDL Development and Trash Assessment), while replacing the other four with locally preferred special studies already in place (Regional Bioassessment Program and LID BMP design, maintenance, and effectiveness study). The Copermittees believe the alternate proposal provides information that is directly relevant and beneficial to the Santa Margarita Region. This would result in an annual cost savings of \$314,000 per year. This would maintain parity with the OC Permit, which only has four special studies, three of which are identical to the studies proposed below (TMDL Development, Regional Bioassessment, Trash and Litter investigation). Specific language to incorporate the new studies is included in the redline markup of the MRP.

The Copermittees propose the following studies, the write-up for which can be found in Attachment 9 to the comment letter:

1. TMDL Development and Implementation
2. **LID BMP design, maintenance and effectiveness study and demonstration**

This study will be valuable in ensuring BMPs that are required are effective and the benefit and integration of LID BMPs into a site is understood. This proposed study would directly affect the Copermittees ability to ensure effective LID BMPs are being implemented.

3. **Regional Bioassessment study**

All the Southern California counties have committed to participate in this study, with the understanding that it would be written into the MS4 permits as a special study for which they would get credit. The Copermittees have been proactively implementing this study without a MS4 Permit requirement, and want to be able to continue to support these regional studies.

4. Trash and Litter Investigation

Other Changes

Table 1: Analytical Testing for Mass Load (A.1) and Bioassessment (A.2)

Revision: Request "Carbamates" be removed as a constituent for analytical testing in Table 1.

Justification: The testing of carbamates should be dictated by the completion of toxicity identification evaluations (TIEs). The use of carbaryl in urban areas throughout California dropped approximately 80% between 2004 and 2008¹. This drop is also matched by an 80% reduction in the number of USEPA-registered carbaryl products between 2004 and 2008. A downward trend since 2006 likely reflects a long-

¹ TDC Environmental, LLC (2010). *Annual Urban Pesticide Use Data Report 2010*. Prepared for the Urban Pesticide Pollution Prevention Project (UP3 Project) and the San Francisco Estuary Partnership (SFEP) through grant agreement from the State Water Resources Control Board (Agreement 09-305-550-1). June.

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term reduction in the availability of carbaryl products due to USEPA regulatory requirements.² Further, once the USEPA completes its regulatory process for the full implementation of new carbaryl restrictions³, urban carbaryl use is likely to continue to decline.

Revision: Request "Hexavalent Chromium" be removed as a constituent for analytical testing in Table 1.

Justification: Since 2004, monitoring in the Santa Margarita Region has reflected that out of 62 total samples, there were 60 non-detected levels of Hexavalent chromium. The 2 detected levels of Hexavalent chromium occurred in April 2007 in wet weather samples. It may be noted that 2007 was the driest year on record for the region and analyzed samples reflect an extended period between wet weather events.

Revision: Request "Biological Oxygen Demand, 5day" and "Chemical Oxygen Demand" be removed as constituents for analytical testing in Table 1.

Justification: The reference in the Fact Sheet supporting the inclusion of these constituents is to the initial Phase 1 application requirements. It should be noted that the initial constituent list is not required of future permits. Further, these constituents are costly to analyze and do not provide new information that is relevant to the management of the NPDES MS4 Program.

Revision: Request "Total Organic Carbon" and "Dissolved Organic Carbon" be removed as constituents for analytical testing in Table 1.

Justification: The reference within the Fact Sheet does not require these constituents and there is a significant cost in analyzing the constituents. It is not clear what additional information these constituents provide that would be useful in managing the MS4 program that is not already addressed through the collection of other constituents.

Table 4: Analytical Testing for Wet Weather MS4 Discharges

Revision: Request "Biological Oxygen Demand, 5day" and "Chemical Oxygen Demand" be removed as constituents for analytical testing in Table 4.

Justification: The reference in the Fact Sheet supporting the inclusion of these constituents is to the initial Phase 1 application requirements. It should be noted that the initial constituent list is not required of future permits. Further, these constituents are costly to analyze and do not provide new information that is relevant to the management of the NPDES MS4 Program.

Revision: Request "Total Organic Carbon" and "Dissolved Organic Carbon" be removed as constituents for analytical testing in Table 4.

Justification: The reference within the Fact Sheet does not require these constituents and there is a significant cost in analyzing the constituents. It is not clear what additional information these constituents

² USEPA (2008). Amended Reregistration Eligibility Decision (RED) for Carbaryl. EPA-738-R-08-010. August.

³ USEPA (2007). Reregistration Eligibility Decision (RED) for Carbaryl. EPA-738-R-07-018. September.

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provide that would be useful in managing the MS4 program that is not already addressed through the collection of other constituents.

Attachment E: II.B.2

Revision: Request the following text revisions:

"The Copermittees must collaborate to develop and implement a ~~monitoring~~ program to identify sources of pollutants causing the priority water quality problems within each hydrologic subarea. The ~~monitoring~~ program must include focused monitoring ~~which moves upstream into each watershed~~ as necessary to identify source areas, or other methods to identify the societal sources of pollutants, as appropriate. This ~~monitoring~~ program must be implemented within each hydrologic subarea and must begin no later than the 2012-2013 monitoring year."

Justification: As drafted, the permit requires source identifications to start at the end point of the watershed and move upstream. The requested revisions are intended to provide flexibility to allocate resources appropriately based on field judgements. The second part of the revision is to acknowledge some pollutant contributions to the MS4 are in-fact, non-point source, and cannot be pinpointed through focused source ID Monitoring.

Attachment E: II.C.1.b.(2)

Revision: Request text additions:

"Sampling of non-storm water discharges may be done utilizing grab samples. If a ponded MS4 discharge is observed at a monitoring station, the Copermittee(s) must record the observation and collect at least one (1) grab sample, however ponded water samples will not be used in determining action level exceedances. If flow is evident, a 1-hour composite sample may be taken. The Copermittee(s) must estimate the flow using techniques such as by measuring the width of water surface, approximate depth of water, and approximate flow velocity."

Justification: The first text addition is to avoid triggering action levels due to increased concentrations caused by evaporation of ponded water. Evaporation of ponded water will result in increased concentrations of any constituents contained in the water. NALs are based on Water Quality Objectives that are based on stable, flowing stream conditions. The second text addition is to allow flexibility in measuring stream flows. In some cases, flow gauges or flow meters may be available to estimate flow.

Attachment E: III.A.2.

Revision: Request text additions:

Attachment 4: Monitoring and Reporting Program Requirements

Monitoring Annual Report: The Principal Copermittee must submit the Receiving Waters and MS4 Discharge Monitoring Annual Report to the San Diego Water Board on October 1 of each year, beginning on **October 1, 2013**. Receiving Waters and MS4 Discharge Monitoring Annual Reports must cover the monitoring activities and results from the previous fiscal year, and must meet the following requirements:

Justification: All of the Copermittees' activities are tracked and reported on a Fiscal Year basis. This facilitates clearer data and cost tracking, and results that can be more effectively integrated into the JRMP reports in a clear and understandable manner, since the reporting periods are aligned. This change is important, so as to allow for a simpler transition from the existing monitoring and data tracking methods, to those that will be developed for compliance with the permit.

Attachment E: III.A.2.e

Revision: Request the following text revisions:

~~"Annual. The 4th year monitoring report must include identification and analysis of any long-term trends in the Copermittees' MS4 storm water discharges or receiving water quality. Appropriate statistical methods shall be used to evaluate the water quality data. Trend analysis must use nonparametric approaches, such as the Mann-Kendall test, including exogenous variables in a multiple regression model, and/or using a seasonal nonparametric trend model, where applicable"~~

Justification: The first edit is to require the long term statistical analyses be performed on a time schedule consistent with submission of the ROWD. Requiring long-term statistical trend analyses on an annual basis is unnecessary and inappropriately increases analysis and reporting costs and complexity. The second edit recognizes a multitude of different statistical methods could be used and others may be more appropriate to the dataset than those identified in the draft MRP.

Attachment E: III.A.2.f

Revision: Request elimination of requirement for annual monitoring reports to include total pollutant loads (wet weather loads plus dry weather loads) due to MS4 Discharge for each of the hydrologic subareas.

Justification: Many assumptions go into the calculations of total loads, making their use in statistical analyses questionable at best. The Copermittees have continued to provide this data, but do not see that it has any value.

Note: Other redlines noted but not included in this paper are for clarification purposes and to make sure permit language is consistent with requested changes throughout Attachment E.

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

Executive Summary

The Draft Municipal Separate Storm Sewer System Permit (Draft Tentative Order No. R9-2010-0016; NPDES No. CAS0108740) for the Santa Margarita Region of Riverside County (Draft MS4 Permit) includes proposed findings and requirements for development and maintenance of unpaved roads that are redundant to existing regulatory requirements. The proposed requirements for maintenance of unpaved roads may lead to the unintended consequence of discouraging maintenance of the majority of the unpaved roads in the Santa Margarita Region, which may increase the potential for erosion and sediment discharge from such roads. Statements in the Fact Sheet and Findings, monitoring data, and Permittee observations and experience do not support identification of unpaved roads as a significant source of pollutants to receiving waters in the Santa Margarita Region, thereby warranting additional regulation of unpaved roads.

The Copermittees request that the proposed requirements for development and maintenance of unpaved roads be removed from the Draft MS4 Permit. The Copermittees believe that enhancement of existing programs by identifying Best Management Practices (BMPs) specific to maintenance of unpaved roads and providing public education to owners and contractors providing maintenance of privately maintained unpaved roads will be as effective as the program in the draft Permit at substantially less cost. If the San Diego Regional Board determines that unpaved roads within their jurisdiction require further regulation, the Permittees believe that the appropriate regulatory mechanism is a General Permit (Waste Discharge Requirements or NPDES Permit) since the Draft MS4 Permit addresses only a fraction of unpaved roads within the jurisdiction of the San Diego Regional Board.

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

1.0 Background

The stream system in the Santa Margarita Region is ephemeral, with only small isolated segments exhibiting natural perennial flow due to rising groundwater. Such a stream system does not support fish migration. Runoff from the Santa Margarita Region naturally exhibits high sediment loads due to precipitation patterns, limited vegetative cover, soil types and steep topography.

Most existing unpaved roads in the Santa Margarita Region are private roads on private property that have not been engineered and have evolved through use. Such unpaved roads consist of earthen materials that have been compacted by vehicular use and do not include improved drainage, engineered grading or surface improvement. However, proposed unpaved road projects are subject to the development requirements of the MS4 Permit and the Construction General Permit and would be engineered.

In contrast to paved roads, unpaved roads are predominantly lightly traveled and found in rural areas serving economically disadvantaged residents. Many of these roads remain unpaved for economic reasons. Moreover, some residents do not want paved roads as they desire to preserve the rural/rustic nature of their communities.

Maintenance of unpaved roads in the Santa Margarita Region is generally limited to smoothing washboard depressions that have been created by vehicle use and to improve drainage by properly sloping the surface. The smoothed road surface is compacted by the grading equipment and, subsequently, by regular traffic use. This routine maintenance activity is intended to maintain original lines and grade, and the original purpose of the unpaved road. Repair of landslides and washouts, and replacement of culverts is also performed as needed, in some instances on an emergency basis. Landslide and washout repairs may require the implementation and maintenance of temporary erosion and sediment control BMPs until the disturbed area is stabilized.

The Permittees voluntarily provide limited maintenance of Copermittee maintained, dedicated and accepted unpaved roads for public access. This voluntary maintenance is provided for public safety, including emergency vehicle access, and to maintain utility of the public easement. There is no requirement that the Permittees provide this maintenance.

Most unpaved roads in the Santa Margarita Region are not maintained by the Permittees, but instead are private roads located on private property. Permittee staff is only allowed to enter private property if a crime or illegal activity is observed. The County of Riverside has not accepted maintenance of unpaved roads since the late 1940s and now only accepts paved roads that have been designed and constructed to County standards. Murrieta and Temecula will only approve new subdivisions with paved roadways constructed to their standards. In some instances, the Permittees maintain unpaved roads under contract to Home Owners' Associations or through Community Service Areas. However, the Permittees are prohibited by law from using Gas Tax funds for maintenance of unpaved roads on private property.

Other entities that are not under the legal authority of the Permittees also own unpaved roads in the Santa Margarita Region. These entities include:

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

- Agricultural Operators
- Eastern Municipal Water District
- Federal Lands
- Metropolitan Water District of Southern California
- Nature Conservancy
- Railroads
- Rancho California Water District
- Southern California Edison
- State of California
- Tribal Lands

2.0 Findings Addressing Proposed Requirements for Unpaved Roads

Finding D.1.c of the Draft MS4 Permit states:

This Order contains new or modified requirements that are necessary to improve Copermittees' efforts to reduce the discharge of pollutants in storm water runoff to the MEP and achieve water quality standards. Some of the new or modified requirements, such as the revised Watershed Water Quality Workplan (Watershed Workplan) section, are designed to specifically address these high priority water quality problems. Other requirements, such as for unpaved roads, are a result of San Diego Water Board's identification of water quality problems through investigations and complaints during the previous permit period. Other new or modified requirements address program deficiencies that have been noted during audits, report reviews, and other San Diego Water Board compliance assessment activities. Additional changes in the monitoring program provide consistency with the Code of Federal Regulations, USEPA guidance, State Water Board guidance, and the Southern California Monitoring Coalition recommendations.

The discussion of Finding D.1.c states:

The Copermittees are required to update and expand their runoff management programs on jurisdictional and watershed levels in order to improve their efforts to reduce the contribution of storm water pollutants in runoff to the MEP and meet water quality standards. Changes to Order No. R9-2004-001's requirements have been made to help ensure these two standards are achieved by the Copermittees.

The Orders' jurisdictional requirements have changed based on findings by the San Diego Water Board during typical compliance assurance activities, audits, or receipt of complaints. Where the audits found common implementation problems, requirements have been altered to better ensure compliance. In addition, the San Diego Water Board conducted reviews of the jurisdictional annual reports submitted by the Copermittees. Updates to the requirements for the Copermittees' programs are also based in part on

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

information found in the Copermittees' ROWD requirements that were included in the San Diego and Orange County MS4 permits, and discussions with the Riverside County Copermittees.

To better focus on attainment of water quality standards, the Order's jurisdictional and watershed requirements have been improved. The conditions of the receiving waters now drive management actions, which in turn focus diminishing resources on the highest priority water quality problems within the receiving waters in the watershed. Improvements to jurisdictional and watershed requirements were also made to facilitate a mutually clear understanding of the requirements between the San Diego Water Board and Copermittees.

During the previous permit period, the San Diego Water Board identified, through investigations and complaints, sediment discharges from unpaved roads as a significant source of water quality problems in the Riverside County portion of the San Diego Region. Enforcement and inspection activities conducted by the San Diego Water Board during the previous permit term have found a lack of source control for many unpaved roads within the jurisdiction of the Copermittees. Unpaved roads are a source of sediment that can be discharged in runoff to receiving waters, especially during storm events. Erosion of unpaved roadways occurs when soil particles are loosened and carried away from the roadway base, ditch, or road bank by water, wind, traffic, or other transport means. Exposed soils, high runoff velocities and volumes, sandy or silty soil types, and poor compaction increase the potential for erosion. Road construction, culvert installation, and other maintenance activities can disturb the soil and drainage patterns to streams in undeveloped areas, causing excess runoff and thereby erosion and the release of sediment. Poorly designed roads can act as preferential drainage pathways that carry runoff and sediment into natural streams, impacting water quality. In addition, other public works activities along unpaved roads have the potential to significantly affect sediment discharge and transport within streams and other waterways, which can degrade the beneficial uses of those waterways.

USEPA also recognizes that discharges from unpaved roads are a threat to water quality. USEPA guidance emphasizes the threat of unpaved roads to water quality:

"Dirt and gravel roads are a major potential source of these pollutants [sediment] and pollutants that bind to sediment such as oils, nutrients, pesticides, herbicides, and other toxic substances]. Many roads have unstable surfaces and bases. Roads act like dams, concentrating flows that accelerate erosion of road materials and roadsides. Both unstable surfaces and accelerated erosion then lead to sediment and dust."

There are several guidance documents, developed by the USEPA, the US Forest Service, the University of California, and others, that include design and construction specifications and BMPs that are readily available for implementation by private and

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

public entities. Implementing design and other source control BMPs for unpaved roads in the region is necessary to reduce and minimize the impacts of sediment discharged during storm events from unpaved roads to the MS4s and receiving waters.

Comment: The evidence cited in the Finding, water quality monitoring data, and Permittee observations and experience since establishment of the MS4 Permit in 1990 do not identify unpaved roads as a significant source of pollutants resulting in water quality impairments. The Copermittees support the continued application of development and construction requirements and maintenance of temporary erosion and sediment control BMPs as specified in existing permits.

The requirements for development and maintenance of unpaved roads were proposed by Regional Board staff for inclusion in the Draft MS4 Permit just prior to its release for public comment. Prior to that time, and dating from the original establishment of the MS4 Permit requirements in 1990, unpaved roads had not once been mentioned by Regional Board staff as a significant source of water quality impairment requiring additional regulatory.

The discussion of Finding D.1.c. states that the inclusion of unpaved road requirements was based on "investigations and complaints" reviewed by the San Diego Regional Board. However, Regional Board staff identified only one recent case regarding an unpaved road in the Santa Margarita Region as a problem. The Copermittee in question has investigated this case and it is being addressed as an enforcement action. Although the Copermittees have not had the opportunity to review the investigations and complaints cited by Regional Board staff, no feedback from these investigations was reported to the Copermittees at the MS4 Permit discussions prior to the proposal of the unpaved road requirements. This indicates to the Copermittees that unpaved roads do not in fact present a significant water quality concern.

The Copermittees have reviewed the documents cited by Regional Board staff in the discussion of Finding D.1.c. and the conditions in the Santa Margarita Region are vastly different from those in Pennsylvania and Northern California cited in those documents. These areas receive regular precipitation, have significant vegetative cover, and perennial streams, some of which may support migrating fish. Nothing in these documents suggests that unpaved roads are a significant source requiring special attention in the Santa Margarita Region. Further, no data collected during Copermittee monitoring nor their observations support a conclusion that unpaved roads are a significant source of pollutants warranting special regulatory attention.

The lack of evidentiary support for the unpaved roads provisions makes their inclusion in the Draft MS4 Permit arbitrary and capricious. The Copermittees therefore request deletion of Finding D.1.C.

3.0 Fact Sheet Addressing Proposed Requirements for Unpaved Roads

Page 146 of the Fact Sheet states:

Section F.1.i (Unpaved Roads Development) specifically requires the Copermittees to implement or require implementation of BMPs for erosion and sediment control after construction of all new unpaved roads. As discussed for Finding D.1.c, design and source control BMPs for unpaved roads are needed to minimize the discharge of sediment to the MS4s and receiving waters,

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

especially during storm events. There are several guidance documents available (see Discussion for Finding D.1.c) that include design and source control BMPs that can be readily implemented by the Copermittees for the development of new unpaved roads.

Page 155 of the Fact Sheet states:

Section F.3.a.(10) (Unpaved Roads Maintenance) requires the Copermittees to implement or require implementation of BMPs for erosion and sediment control during and after maintenance activities on unpaved roads, particularly in or adjacent to stream channels or wetlands. As discussed for Finding D.1.c, source control BMPs for unpaved roads are needed to minimize the discharge of sediment to the MS4s and receiving waters. There are several guidance documents available (see Discussion for Finding D.1.c) that include BMPs that can be readily implemented by the Copermittees for the development of new unpaved roads. This requirement is necessary to ensure the Copermittees minimize the discharge of sediment from their unpaved roads used for their maintenance activities.

Page 160 of the Fact Sheet states:

Section F.3.c.(5) (Privately Owned Unpaved Roads Maintenance) includes requirements for privately owned unpaved roads. The Copermittees must require implementation of BMPs for erosion and sediment control during maintenance activities on privately owned unpaved roads, particularly roads that are in or adjacent to receiving waters. As discussed for Finding D.1.c, BMPs for unpaved roads are needed to minimize the discharge of sediment to the MS4s and receiving waters. There are several guidance documents available (see Discussion for Finding D.1.c) that include design and source control BMPs that can the Copermittees can readily require to be implemented.

In addition, where the Copermittees identify illegal construction and maintenance grading activities on privately owned unpaved roads, the Copermittees must enforce their ordinances to prevent illicit discharges of sediment and other pollutants from privately owned unpaved roads to their MS4s and receiving waters.

Comment: For the reasons set forth above, there is no evidence that unpaved roads require special regulatory attention in the MS4 Permit. Moreover, proposed requirements specific to unpaved roads are redundant to existing requirements in both the existing Permit and the draft MS4 Permit, the state General Construction Permit, and the Copermittees' Stormwater ordinances. To the extent that unpaved roads are of concern to Regional Board staff, those concerns can be effectively addressed by minor adjustments to these existing compliance programs. In a time of tight regulatory budgets, adding these additional requirements, especially where there is no demonstrated need for them, is arbitrary and capricious. The Copermittees request deletion of requirements specific to unpaved roads (see discussion below) as well as these statements in the Fact Sheet.

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

4.0 Draft MS4 Permit Requirements for Unpaved Roads

4.1 *Unpaved Road Development Requirements*

Proposed requirements for the development of unpaved road projects appear on page 45 in section F.1.i of the Draft MS4 Permit. The proposed requirements state:

i. Unpaved Roads Development

The Copermittees must develop, where they do not already exist, and implement or require implementation of erosion and sediment control BMPs after construction of new unpaved roads. At a minimum, the BMPs must include:

- (1) Practices to minimize road related erosion and sediment transport;
- (2) Grading of unpaved roads to slope outward where consistent with road engineering safety standards;
- (3) Installation of water bars as appropriate;
- (4) Unpaved roads and culvert designs that do not impact creek functions and where applicable, that maintain migratory fish passage.

Virtually all unpaved road development activities would be greater than one acre and/or be part of a priority development project of one acre or more. Such development projects are required to prepare and implement project-specific Standard Urban Stormwater Mitigation Plans (SUSMPs) under Section F of both the existing MS4 Permit and the Draft MS4 Permit. The SUSMPs identify post-construction BMPs that will be implemented for all elements of the project, including the unpaved road elements of the project. Unpaved road projects are also required to comply with the state General Construction Permit, which requires preparation of a SWPPP that identifies construction-phase BMPs and post-construction BMPs. These development and construction phase requirements are applicable to unpaved roads and are imposed by the Copermittees during the development review process, during the issuance of grading permits and during construction inspections. Either the general requirements for development projects in the existing or Draft MS4 Permit and/or the General Construction Permit already require identification and implementation of post-construction BMPs, including erosion and sediment control BMPs, when developing new unpaved roads. Therefore, additional requirements for development of unpaved roads are redundant and the Copermittees request that these redundant requirements be removed from the Draft MS4 Permit.

4.2 *Unpaved Road Maintenance Requirements*

Proposed requirements for the maintenance of unpaved roads appear on page 56 in Section F.3.a(10) and on page 64 in Section F.3.c.(5) of the Draft MS4 Permit. The proposed requirements state:

F.3.a. (10) Unpaved Roads Maintenance

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

- (a) The Copermitees must develop, where they do not already exist, and implement or require implementation of BMPs for erosion and sediment control measures during such maintenance activities on unpaved roads, particularly in or adjacent to receiving waters.
- (b) The Copermitees must develop and implement or require implementation of appropriate BMPs to minimize impacts on streams and wetlands during unpaved road maintenance activities.
- (c) The Copermitees must regularly maintain their unpaved roads adjacent to streams and riparian habitat to reduce erosion and sediment transport;
- (d) Re-grading of unpaved roads during maintenance must be sloped outward where consistent with road engineering safety standards;
- (e) Through their regular maintenance of unpaved roads, the Copermitees must examine the feasibility of replacing existing culverts or design of new culverts or bridge crossings to reduce erosion and maintain natural stream geomorphology.

F.3.c. (5) Privately Owned Unpaved Roads Maintenance

- (a) The Copermitees must require implementation of BMPs for erosion and sediment control during maintenance activities on privately owned unpaved roads, particularly in or adjacent to stream channels or wetlands.
- (b) The Copermitees must enforce their ordinances against illegal construction and maintenance grading activities on privately owned unpaved roads, so as to prevent impacts to water quality.

The documents,^{1,2,3} cited in Finding D.1.c discuss shaping of the surface of unpaved roads during smoothing, and maintenance of temporary sediment and erosion control BMPs associated with maintenance activities, such as repair of landslides and wash outs. The temporary erosion and sediment control BMPs identified include straw bales and silt fencing. The documents do not describe conditions in the Santa Margarita Region, but rather in Pennsylvania and Northern California.

Unpaved Roads Maintained by Copermitees

The conditions in the Santa Margarita Region are vastly different from the conditions found in Pennsylvania and Northern California. Nevertheless, the Copermitees conduct surface grading and maintain temporary erosion and sediment control BMPs as appropriate following completion of maintenance on unpaved roads. These BMPs associated with the routine maintenance of unpaved roads

¹ USEPA 2006 "Environmentally Sensitive Maintenance for Dirt and Gravel Roads." Gesford and Anderson, USEPA-PA-2005.

² US Forest Service, 1996. Forest Service Specifications for Construction of Roads & Bridges. EM-7720-100. Revised August 1996.

³ University of California Division of Agriculture and Natural Resources, 2007. Rural Roads: A Construction and Maintenance Guide of California Landowners. Publication 8262.

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

will be documented and procedures formalized in the Riverside County Drainage Area Management Plan (DAMP).

Unpaved Roads Maintained by Others

As previously described, the vast majority of unpaved roads within the jurisdiction of the Copermittees are not maintained by the Copermittees, but are maintained by others, typically private property owners. As these are public easements over private property, however, the underlying property owner is under no legal obligation to provide maintenance. To provide reasonable access, maintenance of such unpaved roads is voluntarily provided by property owners and, in some cases, home owners' associations. State law prohibits the use of Gas Tax funds by the Copermittees for the maintenance of unpaved roads on private property. Requirements for implementation and maintenance of temporary erosion and sediment control BMPs in areas under the legal jurisdiction of the Copermittees are addressed by the general requirements of the Copermittees' stormwater ordinances and, where grading activities are significant, through the Copermittees' grading ordinances. As maintenance of unpaved roads on private property is voluntary, more aggressive regulation of such private roads may in fact discourage routine maintenance of unpaved roads, likely resulting in an increase in erosion and sediment discharge from such roads.

As an alternative, maintenance of unpaved roads can be effectively addressed by enhancing existing programs. There is no need to create a new compliance program requirement specific to unpaved roads, especially where such programs cannot in any event be implemented by the Copermittees on private property. The Copermittees believe that a better approach is to provide public education to property owners and grading contractors in areas served by unpaved roads, focusing on the proper methods of shaping unpaved road surfaces and the benefits of implementing and maintaining temporary erosion and sediment controls.

The Copermittees request that these proposed provisions be removed from the Draft MS4 Permit.

5.0 Alternative Regulation of Unpaved Roads

There is nothing unique about potential discharges from unpaved roads under the legal jurisdiction of the Copermittees such that they would require special regulation. As discussed above, there is significant mileage of unpaved roads in the Santa Margarita Region that are not under the legal jurisdiction of the Copermittees. If there is concern about the impact of unpaved roads on water quality (a concern that, for the reasons already stated, is not supported by the evidence), there is no reason to believe that unpaved roads not under the legal jurisdiction of the Copermittees do not present the same potential to affect receiving water quality.

If it is determined that development and maintenance of unpaved roads requires special additional regulation, then such regulation should apply equally and on the same schedule to all unpaved roads under the jurisdiction of the San Diego Regional Board, not just those under the legal authority of the Copermittees. The Copermittees request that, if staff continues to maintain that unpaved roads require additional regulation, those requirements be addressed through a general permit for unpaved roads, and not in the Draft MS4 Permit.

Attachment 5: Proposed Unpaved Road Requirements of the Draft 2010 Santa Margarita Region MS4 Permit

6.0 Conclusion

No evidence, whether statements in the Fact Sheet and Findings, monitoring data, or Copermittee observations and experience, supports identification of unpaved roads as a significant source of pollutants to receiving waters in the Santa Margarita Region warranting additional regulation. The proposed unpaved road requirements are redundant to requirements of existing permits, including the state General Construction Permit, as well as existing Copermittee ordinances and programs. To the extent that unpaved roads may be a source of pollutants to the MS4 and thence to receiving waters, the Copermittees believe that enhancement of existing programs by documenting BMPs specific to maintenance of unpaved roads and providing public education to owners and contractors who provide maintenance of privately maintained unpaved roads will be as effective in reducing such pollutants, at a much reduced cost.

If the Regional Board determines that unpaved roads within its jurisdiction require further regulation, the appropriate method for addressing those roads is through a General Permit (Waste Discharge Requirements or NPDES Permit) rather than the Draft MS4 Permit, since a General Permit would address all unpaved roads in the San Diego Region, not just the subset of unpaved roads under the legal jurisdiction of the Copermittees.

Attachment 6: Prohibition of Irrigation Runoff

Introduction

The Draft Municipal Separate Storm Sewer System Permit (Draft Tentative Order No. R9-2010-0016 (NPDES No. CAS0108740) for the Santa Margarita Region of Riverside County (Draft SMR MS4 Permit) categorically prohibits the discharge of landscape irrigation; irrigation water; lawn watering; (collectively 'irrigation runoff') and non-emergency fire fighting flows runoff to the MS4. The basis for this requirement comes from the current Orange County Stormwater Permit within the San Diego Region (NPDES No. CAS0108740), which prohibits such discharges.

Context of Requested Changes

Stream and Watershed Characteristics

Unlike the watersheds in South Orange County, the Santa Margarita Region is an ephemeral watershed that includes Murrieta and Temecula Creeks which are perennial interrupted streams, i.e., they include some reaches in which the flow is continuous and others where flow is ephemeral. However, the areas of perennial flow in the Santa Margarita Region are located in mountain area tributaries outside of the urbanized areas serviced by the MS4s. These perennial flows quickly disappear by seepage into the sands and gravels and resurface upstream of the confluence of Murrieta and Temecula Creeks. The creeks in the urbanized areas of the watershed, located primarily in the valley, are ephemeral and flows are only observed during and immediately following significant storm events¹.

Rising groundwater is currently observed in Murrieta Creek below its confluence with the Santa Gertrudis Channel, an observation consistent with the observations made by the State of California in 1956.² Rising groundwater is also observed in Temecula Creek approximately one quarter mile upstream of the Interstate 15 Bridge. In 1956, the State observed more extensive rising groundwater conditions occurring as far upstream as the Highway 79 Bridge. Based on the virtual absence of non-stormwater flows and the rising groundwater conditions observed in lower Murrieta and Temecula Creeks prior to development of the watershed, there is no evidence that the rising groundwater currently observed is due to Urban Runoff nor that Urban Runoff has affected the quality of rising groundwater.

Irrigation Runoff is Not a Source of Pollutants

Finding C.15 states:

Non-storm water discharges to the MS4 granted an influent exception [i.e., which are exempt from the effective prohibition requirement set forth in CWA section 402(p)(3)(B)(ii)] under 40 CFR 122.26 are included within this Order. Any exempted discharges identified by Copermittees as a source of pollutants are subsequently required to be addressed (emphasis added) as illicit discharges through prohibition and incorporation into existing IC/ID programs. Furthermore, the USEPA contemplates that permitting agencies such as the San Diego Water Board may also identify exempted discharges as a source of pollutants required to be addressed as illicit discharges (See VOI.

¹ Riverside Flood Control and Water Conservation District, "Hydrologic Data for 1975-76 Season," March 1982, p. 49.

² State of California Department of Public Works Division of Water Resources, Bulletin No. 57, "Santa Margarita River Investigation," Volume I, June 1956, p. 48.

Attachment 6: Prohibition of Irrigation Runoff

55 Fed. Reg. 48037). The San Diego Water Board and the Copermittees have identified landscape irrigation, irrigation water and lawn water, previously exempted discharges, as a source of pollutants and conveyance of pollutants to waters of the U.S. Of course, rising groundwater is exempt from regulation under 40 CFR 122.26 as a non-prohibited non-storm water discharge.

The last sentence of this Finding does not accurately reflect the facts. Unlike Orange County, and despite Board staff's contentions in the fact sheet the Copermittees have **not** identified landscape irrigation, irrigation water or lawn water as a source of pollutants or conveyance of pollutants to waters of the U.S. Rather, this statement is based on the efforts in Orange County where that County found that the significant perennial flows throughout the urbanized areas were caused by irrigation runoff. Not only has irrigation runoff not been found to be a source of pollutants to waters of the U.S. in the Santa Margarita Region as a category, no individual discharges of irrigation runoff in the region have been found to be a source of pollutants. As described in the Stream Flow Characteristics section above, during dry weather there is no perennial flow in the waters of the U.S. in the urbanized area until rising groundwater occurs just before the confluence of Murrieta and Temecula Creeks. This is unlike streams in South Orange County, that it was found that the significant perennial flows throughout the urbanized areas were caused by irrigation runoff. In the Santa Margarita Region, any weather runoff that does reach receiving waters quickly seeps into the alluvial soils.

Second, the Discussion of Finding C.15 in the Fact Sheet fails to demonstrate the need for a prohibition of this irrigation runoff as a non-stormwater runoff *category*. The discussion references conditions outside of and unlike those found in the Santa Margarita Region and misconstrues statements in public education materials that encourage runoff management as justification for the proposed prohibitions. Finally, no justification is provided in this discussion or elsewhere to support the prohibition of the non-emergency fire fighting flows runoff as a category.

Prohibition Not Economically Justifiable

A prohibition of irrigation runoff will result in significant costs to the public and the Copermittees as the prohibition is ***TO THE MS4***, which is defined to include streets, curbs and gutters. As the MS4 Permit has eliminated the MEP protections for dry weather non-stormwater discharges (see also legal comments in Attachment 7 to the comment letter), this makes the Copermittees responsible for every incidence of over-irrigation, regardless of whether such discharges ever affect receiving waters. As such, the cost to eliminate these discharges is not commensurate with any measurable environmental benefit. The Copermittees cannot impose fees to recover the costs of enforcing this new requirement and, as described in the Economics White Paper (Attachment 2 to the comment letter), the Copermittees have even fewer resources to carry out the requirements of the current MS4 Permit than in past years, much less carry out the additional requirements set forth in the draft Permit, including the development and implementation of a new program to prohibit irrigation runoff.

As this prohibition would also apply to Copermittees' facilities, retrofit of existing facilities would likely be immediately required to ensure compliance. The City of Murrieta, for example, has estimated that retrofit of their sprinklers to a drip system to avoid irrigation runoff from their facilities alone would cost \$250,000.

Attachment 6: Prohibition of Irrigation Runoff

Irrigation Runoff Addressed by Existing Requirements and Programs

Management of irrigation runoff is currently addressed by existing requirements and programs and the additional requirements proposed in the draft Permit are unnecessary. The use of reclaimed water is regulated under Waste Discharge Requirements (WDRs) issued by the Regional Board.

The draft Permit also provides other mechanisms to address irrigation runoff. **First**, if a discharge of irrigation runoff was determined to be a source of stormwater pollutants, the Copermittees already have the legal authority to take appropriate enforcement action to control the discharge as an illegal discharge, under their existing storm water ordinances. **Second**, the non-stormwater action level monitoring required by this draft Permit will identify any potentially problematic non-stormwater discharges and identify the source of those discharges. Should the source be determined to be irrigation runoff, it will require the Copermittees to address that discharge. Both mechanisms are better suited (financially and legally) to deal with irrigation runoff than a complete prohibition provision in the absence of local data showing it as a problem.

Finally, local water purveyors are better equipped and able to address irrigation runoff. As an example, Rancho California Water District and Eastern Municipal Water District actively promote water conservation programs, which are supported by the Metropolitan Water District of Southern California. The County and the cities have adopted water conservation ordinances as required by the Water Conservation in Landscaping Act (AB 1881, Laird). Given these facts, there is even less justification for an extensive and expensive program to address an irrigation runoff issue that is not, in fact, a source of pollutants causing or contributing to a violation of water quality standards in the Santa Margarita Region.

Preferred Requested Permit Revisions

Specifically, the Permittees request that the language in the Permit be amended as follows prior to adoption of the Permit:

Delete Finding C.15

As the last sentence of this Finding is not supported by fact, the Permittees request that it be deleted as noted in the following text and the entirety of the Discussion of Finding C.15 in the Fact Sheet be deleted.

Non-storm water discharges to the MS4 granted an influent exception [i.e., which are exempt from the effective prohibition requirement set forth in CWA section 402(p)(3)(B)(ii)] under 40 CFR 122.26 are included within this Order. Any exempted discharges identified by Copermittees as a source of pollutants are subsequently required to be addressed (emphasis added) as illicit discharges through prohibition and incorporation into existing IC/ID programs. Furthermore, the USEPA contemplates that permitting agencies such as the San Diego Water Board may also identify exempted discharges as a source of pollutants required to be addressed as illicit discharges (See VOL. 55 Fed. Reg. 48037). ~~The San Diego Water Board and the Copermittees have identified landscape irrigation, irrigation water and lawn water, previously exempted discharges, as a source of pollutants and conveyance of pollutants to waters of the U.S.~~

Attachment 6: Prohibition of Irrigation Runoff

Restore Conditional Exemption

The Permittees request that the landscape irrigation; irrigation water; lawn watering; and non-emergency fire fighting flows runoff categories be restored to the list of non-prohibited, non-stormwater discharges identified in B.2 of the draft SMR MS4 Permit as noted below. In the event that an individual irrigation runoff discharge is determined to be a source of pollutants as identified by the non-stormwater dry weather action level (NAL) process, appropriate action can be taken by the Permittees to control that source.

B.2. Non-Stormwater Discharges

This item includes a listing of discharges that are not prohibited unless a discharge is determined to be a source of pollutants to waters of the U.S. Landscape irrigation, irrigation water, lawn watering and non-emergency fire fighting flows were deleted from this list as noted:

- a. Diverted stream flows;
- b. Rising groundwaters;
- c. Uncontaminated groundwater infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
- d. Uncontaminated pumped groundwater³;
- e. Foundation drains³;
- f. Springs;
- g. Water from crawl space pumps³;
- h. Footing drains³;
- i. Air conditioning condensation;
- j. Flows from riparian habitats and wetlands;
- k. Water line flushing^{4,5};
- l. Landscape irrigation;
- m. Discharges from potable water sources not subject to NPDES Permit No. CAG679001, other than water main breaks;
- n. Irrigation water;
- o. Lawn watering;
- p. Individual residential car washing;
- q. Non-emergency fire fighting flows; and
- r. Dechlorinated swimming pool discharges

Additional Clarifications

It is not practicable for the Copermittees to prevent or eliminate irrigation runoff. The Permittees request that the following requirements be revised as noted to provide achievable compliance requirements:

F.1.c.(1) Approval Process Criteria and Requirements for All Development Projects states:

³ Requires enrollment under Order R9-2008-002. Discharges into the MS4 require authorization from the owner and operator of the MS4 system.

⁴ This exemption does not include fire suppression sprinkler system maintenance and testing discharges. Those discharges may be regulated under Section B.3.

⁵ Requires enrollment under Order R9-2002-0020.

Attachment 6: Prohibition of Irrigation Runoff

Performance Criteria: Discharges from each approved development project must be subject to the following management measures:

(1) Source control BMPs that reduce stormwater pollutants of concern in runoff; ~~prevent~~ reduce the potential for illicit discharges into the MS4; ~~prevent~~ reduce the potential for irrigation runoff; storm drain system stenciling or signage; properly design outdoor material storage areas; properly design outdoor work areas; and properly design trash storage areas.

F.1.d.(5) Source Control BMP Requirements states:

Each Copermittee must require each Priority Development Project to implement applicable source control BMPs. The source control BMPs to be required must:

- (a) Prevent illicit discharges into the MS4;
- (b) Minimize storm water pollutants of concern in runoff;
- (c) ~~Eliminate~~ Reduce the potential for irrigation runoff;
- (d) Include storm drain system stenciling or signage;
- (e) Include properly designed outdoor material storage areas;
- (f) Include properly designed outdoor work areas;
- (g) Include properly designed trash storage areas;
- (h) Include water quality protection requirements applicable to individual priority project categories.

Alternative Requested Permit Revisions

Regulate irrigation runoff discharges from the MS4, rather than as prohibited discharge to the MS4

If the Regional Board nevertheless insists on prohibiting irrigation runoff, the Copermittees request that the draft MS4 Permit be revised to allow for irrigation runoff to be managed as a Jurisdiction Runoff Management Plan (JRMP) program, rather than as a prohibited discharge to the MS4. This alternative request is consistent with how the Permit currently deals with non-emergency fire fighting discharges, which was also removed from the list of non-prohibited non-stormwater discharges. The Executive Officer stated that he would be open to consideration of a program for irrigation runoff that would address discharges from the MS4. This alternative approach allows the Copermittees to develop a program that focuses on irrigation runoff problem areas, as opposed to holding the Copermittees responsible for eliminating any instant case of over-irrigation independent of threat to receiving water quality.

As the alternative to restoring the conditional exemption, the Copermittees request the Board to ADD Provision B.4 as follows:

B.4. As part of the JRMP, the Copermittees must develop and implement a program to address pollutants from landscape irrigation, irrigation water and lawn watering identified as significant sources of pollutants to waters of the United States.

Attachment 7: General Legal Comments

LEGAL COMMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ON TENTATIVE ORDER NO. R9-2010-0016, WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) DRAINING THE COUNTY OF RIVERSIDE, THE INCORPORATED CITIES OF RIVERSIDE COUNTY, AND THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT WITHIN THE SAN DIEGO REGION

The following comments are made by the Riverside County Flood Control and Water Conservation District (District) with respect to legal issues raised by the above-referenced Tentative Order (Order). These comments are being made on behalf of the District and, with respect to issues common to the other Copermittees, also on behalf of the County of Riverside and the Cities of Menifee (to the extent that this City will remain as a Co-Permittee under the Order), Murrieta, Temecula and Wildomar. We also understand that the County and the individual Cities will be filing comments on the Order under separate cover. The comments contained in this document are intended to complement, but not supersede, the individual comments of the County and the City. Also, the District will be filing separate comments concerning issues specific to it.

The District reserves the right to make additional legal comments on the Order prior to the close of the public hearing to adopt the order. In addition, legal comments may also be included in the Technical Comments separately filed herewith by the District.

The redlined version of the Order submitted with the District's comment letter also addresses the following and additional comments, along with requested changes in the text of the Order.

General Comments:

1. *Dual Requirement to Adopt Programs and Guarantee Results*

Throughout Part F. of the Tentative Order relating to the Jurisdictional Runoff Management Program, the language requires not only that the Copermittees adopt programs intended to achieve control of pollutants but also requires such programs to achieve certain ends. See, for example, Part F.1., where each Copermittee must implement a development planning program which meets the requirements of Section F of the Tentative Order *and* which requires such a program to (1) reduce development project discharges from the MS4 to the MEP, (2) prevent such discharges "from causing or contributing to a violation of water quality standards", (3) prevents illicit discharges to the MS4, and (4) manages increases in runoff discharge rates. A similar requirement is set forth in other provisions, including Part F.3, relating to existing development, Part F.3.b., relating to commercial/industrial programs, Part F.3.c., relating to residential programs and Part F.6, relating to the education component where, in each case, the Copermittees are required to develop programs and ensure their performance.

This dual requirement, to develop a program and then to ensure that it achieves the intended ends, is unlawful, as it goes beyond the requirements of the MS4 regulations and requires the Copermittees to guarantee the results of activities that will often be in the control of third parties.

Attachment 7: General Legal Comments

The MS4 regulations require that the MS4 permittees develop the required programs. See, for example, 40 CFR § 122.26(d)(2)(iv(A))(2), which requires the Copermittees to, among other things, develop and implement a management program including a "description of planning procedures including a comprehensive master plan to develop, implement and enforce controls to reduce the discharge of pollutants from municipal separate storm sewers which receive discharges from areas of new development and significant redevelopment". The Copermittees certainly could be liable under the permit if they failed to adequately "develop, implement and enforce controls". However, the MS4 regulations do not require that the Copermittees guarantee, under threat of being found in violation of the permit, that such controls achieve the desired ends of the management programs. It should be also noted that in many other parts of the Order, the Copermittees are directed to develop programs "designed" to achieve water quality goals.

Further, the iterative BMP approach required by the State Water Resources Control Board ("State Board") in precedential State Board Order WQ 99-05 and subsequent rulings would be made meaningless if the Copermittees were strictly liable for ensuring in their programs that discharges did not cause or contribute to a violation of a water quality standard. It is appropriate for the Board to set forth in these sections the "elements needed in the Copermittees' program to fulfill the goals of [the] directive", as set forth in staff's Response to Comment 297 on the Orange County MS4 permit, Order No. R9-2009-0002. However, the Board has no authority to require the Copermittees to guarantee that such goals will be fulfilled, as the current language appears to require.

In addition to the portions of the Order cited, the Copermittees also request changes to similar provisions found at Sections F.1.d, F.1.d.5, F.2, F.3.a, F.4, and G. The attached redline identifies those and any additional parts.

2. Requirement to Follow State Law on Requirements Not Required by Federal Law

A number of requirements in the Tentative Order exceed the requirements of federal law. The Board may have discretion to impose such requirements under state law (*Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999)), however, the California Supreme Court has determined that to the extent such state law requirements are included in an NPDES permit, the Board must consider the factors set forth in Water Code § 13263(a) and § 13241, including the water quality that could reasonably be achieved by the requirements and economic considerations. *City of Burbank v. State Water Resources Control Board* (2005) 35 Cal. 4th 613. See also Water Code § 13000, setting forth that the activities and factors which may affect the quality of the waters of the state "shall be regulated to attain the highest water quality which is reasonable, considering all demands being made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible".

The Fact Sheet and findings for the Tentative Order do not establish that staff has considered such factors or, to the limited extent the factors were considered, staff used out-of-date and incomplete information. In particular, the economic analysis contained in Section VI of the Fact Sheet uses out-of-date information on the economic viability of the cities in the Santa Margarita Region, ignoring the impact of the national recession, which has hit the Region with particular force and which has caused a major reduction in property tax and sale tax revenues available to

Attachment 7: General Legal Comments

fund water quality activities under the Order. For a more complete economic analysis, please see Attachment 2 to the comment letter.

Findings in Tentative Order:

Finding A.4: This finding states that responses to comments on the Order would be "incorporated by reference" into the findings supporting the Order.

Comment: Incorporating responses to comments as to which interested parties have no chance to comment prior to the hearing on the Order raises a due process concern.

Finding C.14: This finding states, in relevant part, that "[n]on-storm water (dry weather) discharge from the MS4 is not considered a storm water (wet weather) discharge and therefore is not subject to regulation under the Maximum Extent Practicable (MEP) standard . . .". The finding further asserts that such discharges are to be "effectively prohibited" from discharge into the MS4.

Comment: The rationale for this finding, as set forth in the Fact Sheet, relies on a State Board precedential decision, Order No. WQ 2009-0008. This order has been vacated by order of the Los Angeles County Superior Court in *County of Los Angeles v. State Water Resources Control Board*, Case No. BS 122724 (July 16, 2010). Thus, the order has no further effect and cannot be cited or relied upon by the Board in support of this finding or any other finding or directive in the Order.

Moreover, the finding incorrectly states that discharges of non-stormwater from the MS4 are not subject to the MEP standard. This parsing of "stormwater" and "non-stormwater" is not found in the Clean Water Act, which states only that the MS4 permit "shall require controls to reduce the discharge of *pollutants* to the maximum extent practicable . . .". 33 U.S.C. 1342(p)(3)(B)(iii) (emphasis supplied). The preamble to the MS4 regulations promulgated by U.S. EPA moreover also acknowledges that "MEP control measures" would be implemented to address not only pollutants in "stormwater" but also from "non-stormwater discharges."

As the preamble states:

[Copermittees are required] to develop management programs for four types of pollutant sources which discharge to large and medium municipal storm sewer systems. Discharges from [such systems] are usually expected to be composed primarily of: (1) Runoff from commercial and residential areas; (2) storm water runoff from industrial areas; (3) runoff from construction sites; and (4) *non-storm water discharges*. Part 2 of the permit application has been designed to allow [permittees] the opportunity to propose *MEP control measures for each of these components of the discharge*". 55 Fed. Reg. at 48052 (emphasis supplied).

This language sets forth EPA's understanding of the plain language of the Act: "pollutants" must be controlled to the MEP from the MS4 "discharge", not merely stormwater. While State Board Order No. WQ 2009-0008 improperly attempted to ignore this distinction and liken non-stormwater discharges to prohibited "illicit discharges", that order has been vacated and cannot be cited by the Board.

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Moreover, the interpretation that the Clean Water Act requires controls of dry weather discharges from the MS4 in the same manner as if such discharges were from an industrial wastewater source ignores the factual complexity of the MS4 discharge. For example, some of that discharge will be composed of exempt discharges, such as car washing runoff, swimming pool drainage, rising groundwater, foundation drains and other such sources. As to these types of discharges, U.S. EPA stated that "it is unlikely Congress intended to require municipalities to effectively prohibit . . . *seemingly innocent flows that are characteristic of human existence in urban environments and which discharge to municipal separate storm sewers*". 55 Fed. Reg. at 48037 (emphasis added). Other parts of that discharge will be comprised of industrial discharges separately permitted by the Board, such as well development discharges. These discharges cannot be distinguished from possible illicit discharges, yet they must still be treated to the MEP. There is no requirement in the Clean Water Act, or in the implementing regulations, to ensure that these mixed dry weather discharges must be "effectively prohibited" in the same way that an industrial plant would be required to control its discharges.

Finding C.15: This finding states, in relevant part, that the Board and the Copermittees have identified "landscape irrigation, irrigation water and lawn water, previously exempted discharges, as a source of pollutants and conveyance of pollutants to waters of the U.S." The finding further asserts that such non-exempt discharges are required to be "addressed" as "illicit discharges" and effectively prohibited from entry into the MS4.

Comment: The rationale for this prohibition lacks both a factual and legal basis. The factual issues are discussed in the District's technical comments on this issue. With regard to legal issues, the justification for removing the preexisting exemption for these discharges (referred to hereafter as "irrigation water") is completely lacking. First, given that the justification is based on State Board Order WQ 2009-0008, which likens dry weather discharges to "illicit discharges" required to be "effectively prohibited" from entry into the MS4, the vacation of this order by the Los Angeles County Superior court eliminates this Order as a justification for the prohibition.

Second, EPA, in the preamble to the federal MS4 regulations, required that a *permittee* must make a finding that the "irrigation water" discharges must be a "source of pollutants to waters of the United States . . .". 55 Fed. Reg. 48037. Moreover, such discharges must represent a "significant" source of pollutants to waters of the United States "under certain conditions". U.S. EPA *Guidance Manual for the Preparation of Part 2 of the NPDES Permit Application for Discharges from Municipal Separate Storm Sewer Systems*, November 1992 ("EPA Part 2 Guidance Manual"), at p. 6-33. These conditions require a focus not on an entire category of discharges, but rather a discharger-by-discharger examination.

In the MS4 regulatory preamble, EPA stated that "[i]n general, municipalities will not be held responsible for prohibiting some specific components of discharges or flows listed below through their [MS4], even though such components may be considered non-storm water discharges, unless such discharges *are specifically identified on a case-by-case basis as needing to be addressed*". 55 Fed. Reg. 47995 (emphasis supplied). In the Guidance Manual, EPA states:

If an applicant knows . . . that landscape irrigation water from a *particular site* flows through and picks up pesticides or *excess* nutrients from fertilizer applications, there may

Attachment 7: General Legal Comments

be a reasonable potential for a storm water discharge to result in a water quality impact. In such an event, the applicant should contact the NPDES permitting authority to request that the authority order *the discharger* . . . to obtain a separate NPDES permit (or in this case, the discharge could be controlled through the storm water management program of the MS4).

EPA Part 2 Guidance Manual, p. 6-33 (emphasis added).

Third, the finding asserts that the Board has the authority to "identify exempted discharges as a source of pollutants" and that it has identified the irrigation discharges "as a source of pollutants and conveyance of pollutants to waters of the U.S." Read in the context of the previously cited language, however, the Board has no power greater than a municipality and must identify specific discharges, and not entire categories of discharges. See 55 Fed. Reg. 48037. And, as noted in the white paper on irrigation runoff, the Copermittees have not, in fact, identified irrigation discharges as a source of pollutants or a "conveyance of pollutants" to waters of the United States.

Finding D.1.b.: This finding states that "MS4 discharges, however, continue to cause *or contribute to* violations of water quality standards as evidenced by the Copermittees' monitoring results". (Emphasis added)

Comment: With respect to discharges that "contribute to" violations of water quality standards, it should be noted that for concentration-based water quality standards, an MS4 discharge at concentrations *below* the water quality standard cannot, as a matter of simple scientific fact, *contribute to* a violation of such a water quality standard. If the discharge is below the standard in question, that discharge will never exceed the water quality standard, no matter the volume of the discharge.

Finding D.2.g: This finding, which concerns the effects of urbanization on the characteristics of stormwater flow, states in part that "[h]ydromodification measures for discharges to hardened channels are needed for the future restoration of the hardened channels to their natural state"

Comment: Hardened flood control channels are in place in the Santa Margarita Region due to the need to protect the lives and property of Riverside County residents from floodwaters. Such channels, and other flood control structures, have been established by the District in accordance with its statutory obligations set down by the Legislature in California Water Code App. § 48-9. In particular, we draw the Board's attention to that section of the Water Code setting forth the power of the District to "control the flood and storm waters of said district" and to save and conserve in any manner all or any of such waters and protect from damage from such flood or storm waters the watercourses, watersheds, public highways, life and property in said district." Water Code App. § 48-9(8).

The Board has no statutory jurisdiction under the MS4 program to alter any flood control structures or channels of the District or to some jurisdiction over the construction or location of such structures or channels. Any such alteration or construction must be done with the cooperation and agreement of the District and in accord with the District's statutory mandate to protect the citizens of Riverside County. Please see changes in redline.

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Finding D.3.c: This finding states in part that "urban streams", whether natural, anthropogenic or partially modified, are considered part of the "MS4" if they are used as a conveyance for runoff.

Comment: The definition of "MS4" does *not* include any natural watercourse. This is evident both from the definition of "MS4" in the federal Clean Water Act regulations and from EPA's comments in the preamble to those regulations. First, the definition of "MS4", in relevant part, states that it consists of "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains" "owned or operated by" a municipality "having jurisdiction over disposal of . . . storm water" that is "designed or used for collecting or conveying storm water". 40 CFR § 122.26(b)(8). Nothing in that definition even suggests that natural watercourses are part of the MS4, only improved watercourses.

Second, U.S. EPA, in the preamble to the original MS4 regulations, stated unequivocally that "[t]he Agency also wants to clarify that streams, wetlands and other water bodies that are waters of the United States are not storm sewers for the purpose of this rule". 53 Fed Reg. 49442 (December 7, 1988).¹

Moreover, none of the Copermittees "own" or "operate" a natural stream. Such streams are waters of the State and are "owned" by the people of California.

The authority cited in the Fact Sheet for this finding, a response filed with the State Board in opposition to a petition challenging an MS4 permit issued by the Board to San Diego County, contradicts the federal definition and, under the Supremacy Clause, cannot be employed. Please see changes in redline.

Finding E.1: This finding states that the RWL language in the Tentative Order "requires compliance with water quality standards, which for stormwater discharges compliance is to be achieved through an iterative approach requiring the implementation of improved and better-tailored BMPs over time".

Comment: The District has two comments regarding this finding, one relating to the language of the finding and one relating to the Fact Sheet discussion of the finding. First, the language of State Board Order WQ 99-05, which establishes the RWL language required to be placed in MS4 permits statewide, is not limited to "stormwater" discharges, but rather to all discharges into receiving waters. See State Board Order WQ 99-05. This is consistent also with the requirement that "discharges" from the MS4, not merely stormwater discharges, must be controlled to the MEP and are not required to meet numeric effluent limitations. 33 U.S.C. § 1342(p)(3)(B)(iii). Second, while the language of the finding correctly states that compliance with water quality standards "is to be achieved through an iterative approach", language in the Fact Sheet improperly contradicts this finding by asserting that compliance with the iterative BMP process

¹ EPA saw no need to further clarify this point in the final rulemaking for the MS4 regulations. The absence of any discussion of this point in the final rulemaking does not, contrary to comments made by Board staff in responses to comments on the South Orange County MS4 Permit, Order No. R9-2009-0002, indicate that EPA abandoned this reading of the Act.

Attachment 7: General Legal Comments

"does not shield the discharger from enforcement actions for continued non-compliance with water quality standards". Fact Sheet, page 91.

Such an interpretation contradicts the plain language of Order WQ 99-05 and appears to represent an "end-run" around the entire iterative process and the concept of MEP, which is a flexible concept, intended to allow the development of site-specific permit conditions based on the judgment of the permit writer. See, e.g., 55 Fed. Reg. 48038. The interpretation is, therefore, not consonant with the requirements of the State Board precedential order and the MS4 regulations and should be deleted from the Fact Sheet.

Finding E.6: This finding purports to determine that the Tentative Order "does not constitute an unfunded local government mandate subject to subvention under Article XIII B, Section(6) of the California Constitution".

Comment: This finding has no place in the Tentative Order. The exclusive jurisdiction over a determination as to whether a mandate constitutes an unfunded state mandate lies with the Commission on State Mandates. The Commission has exclusive authority to determine, in the first instance, whether a requirement constitutes an unfunded state mandate. Government Code §§ 17751 and 17552; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 837; *Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1546, 1596-97. The findings of an agency that has no jurisdiction to make those findings are entitled to no weight.

Second, the finding is erroneous on several grounds. It is erroneous in its assertion that the Tentative Order "implements federally mandated requirements under CWA §402". While true, the Order also contains separate state-mandated requirements. As the California Supreme Court has held, NPDES permits (like the Tentative Order) can contain both federal and state requirements. See *City of Burbank, supra*, 35 Cal. 4th at 618, 628. Where those non-federal requirements constitute a new program or higher level of service ordered by the state or exceed federal requirements, those requirements can qualify as a state mandate requiring a subvention of funds. See *Long Beach Unified School District v State of California* (1990) 225 Cal.App.3d 155, 172-73. Even if the requirement derives from federal law, the requirement can still constitute an unfunded state mandate if the state agency has a choice as to whether to impose the requirement on the permittees, e.g., *Hayes*, 11 Cal.App.4th at 1593-94.

Recently, the Commission on State Mandates held that both the Los Angeles County MS4 Permit and the San Diego County MS4 Permit contained requirements that constituted an unfunded state mandate, not required by federal law. *In re Test Claim on Los Angeles Regional Quality Control Board Order No. 01-182*, July 31, 2009; *In re Test Claim on San Diego Regional Water Quality Control Board Order No. R9-2007-0001*, March 26, 2010.

The finding further asserts that the obligations to be imposed on the Copermittees are "similar to, and in many respects less stringent than" obligations on non-governmental discharges. A similar argument was considered and rejected by the Commission in the Los Angeles and San Diego MS4 Permit Test Claims. The District disagrees with this assertion, as there are numerous requirements in the Tentative Order that are uniquely applicable to governmental entities. This is, however, a question that would be addressed by the Commission on State Mandates were a test claim to be filed, the only procedure for the determination of this issue.

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The finding further asserts that Copermittees "have the authority to levy service charges, fees, or assessments to pay for compliance with this Order". This finding is both erroneous on the facts and without any basis in the record. The question of how a state mandate is to be funded is beyond the scope of the Board's expertise and, again, is exclusively within the jurisdiction of the Commission on State Mandates. The finding also asserts that the "Copermittees requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in CWA §301, subdivision (a)". A similar argument was made and rejected in the Los Angeles and San Diego MS4 Permit Test Claims. The finding further asserts that prohibitions against conditions of pollution or nuisance predate the enactment of Article XIII B Section 6 of the California Constitution. The requirements of the Tentative Order far exceed such requirements. And, in any event, whether such requirements predate Article XIII B Section 6 is an issue for the Commission on State Mandates.

The finding is not supported by evidence in the record and is in fact contradicted by controlling legal precedent. Even were it to be included in the Tentative Order, it is entitled to no weight since the Board lacks jurisdiction to make such a finding. For these reasons, the finding and any associated discussion in the Fact Sheet should be deleted. Please see changes in redline.

Directives in Tentative Order:

Section A.1: This directive mandates, among other things, that discharges "into" MS4s that would cause or threaten to cause a condition of "pollution, contamination, or nuisance" in receiving waters of the state are prohibited.

Comment: While the Board in this Order has jurisdiction to prohibit discharges "from" the MS4, it cannot regulate conditions within the MS4, since these are not in fact "receiving waters of the state". In any event, the language is superfluous, since regulation of a discharge from the MS4, which is subject matter of the Tentative Order, accomplishes the same end. Please see the accompanying redline.

Section A.3: This directive both recites the prohibition against discharges that cause or contribute to the violation of water quality standards and introduces the iterative process required by the State Board for MS4 permittees.

Comment: To clarify that the iterative process specifically applies to the Copermittees' compliance requirements in Section A.3, language has been added in the redline.

Section A.3.b: This directive relates to the requirement that the Copermittees repeat the iterative process to comply with receiving water limitations for continuing or recurring exceedances of the limitations.

Comment: Clarifying language changes are requested in the redline.

Section A.3.c: This directive indicates that nothing prevents the Board from enforcing any provision of the Order while the Copermittees are preparing and implementing the receiving water limitation report.

Attachment 7: General Legal Comments

Comment: The drafting and enforcement of ordinances by a municipality is a municipal function that cannot be directed by the Regional Board. Article XI, section 7 of the Constitution guarantees municipalities the right to "make and enforce within [their] limits all local police, sanitary and other ordinances and regulations not in conflict with general laws". Thus, specific requirements as to the content of ordinances cannot be directed by the Board. The redline requests deletion of this requirement.

Section F.3.c.(4): This directive requires that each Copermittee "must ensure that effective measures exist and are implement or required to be implemented to ensure that runoff within and from common interest developments, including areas managed by associations and mobile home parks, and meets the objectives of this section and Order".

Comment: The Fact Sheet inappropriately states that the Tentative Order "interprets common interest areas as property subject to the codes and ordinance and enforcement mechanisms of the city or county in which it resides and, therefore, holds the local government responsible for the discharge of wastes from storm water conveyance systems located within these areas".

The Tentative Order regulates discharges from the MS4. Drainage systems and the runoff handled *within* a private development or common interest area generally are not part of the Copermittees' MS4, as the Copermittees (unless they actually maintain their MS4 within such areas) have no right to maintain or regulate such internal systems, beyond the enforcement of local ordinances regulating discharges *into* the Copermittees' MS4 or through the requirement to install and maintain BMPs. Discharges from such systems are thus no different than discharges from any other private property within the Copermittees' jurisdiction. The first full paragraph in this section should be deleted because it is merely prefatory language to the specific requirements set forth in the remainder of the section.

Section F.3.c.(5): This directive requires the Copermittees to enforce their ordinances with respect to grading activities on privately owned unpaved roads "so as to prevent impacts to water quality".

Comment: In addition to the general objection to the requirement to regulate unpaved roads, found in a separate white paper and in the general comment letter, this specific directive violates the constitutional requirement that the drafting and enforcement of ordinances by a municipality is a municipal function that cannot be directed by the Regional Board. Article XI, section 7 of the Constitution guarantees municipalities the right to "make and enforce within [their] limits all local police, sanitary and other ordinances and regulations not in conflict with general laws". Thus, specific requirements as to the content of ordinances cannot be directed by the Board. Moreover, the scope of the Order is to address discharges from the MS4, not discharges from non-point or non-MS4 sources that may affect "water quality". The redline requests deletion of this requirement.

Section F.6: This directive includes a description of the purposes of the education program with respect to stormwater and non-stormwater discharges.

Comment: The redline includes revisions that correctly state the requirements of the Clean Water Act.

Attachment 7: General Legal Comments

Section H.1: This directive requires that each "Copermittees must exercise its full authority to secure the resources necessary to meet all requirements of this Order".

Comment: There is no statutory or regulatory authority for this requirement. The MS4 regulations require *only* that the Copermittees submit a "fiscal analysis" of the resources required to accomplish permit program activities, including a description of the sources of funds. 40 CFR § 122.26(d)(2)(vi). Moreover, this requirement is inherently vague and ambiguous and is, therefore, especially troublesome given the economic conditions now faced by the County and the Cities within the Santa Margarita region. This directive should be deleted, or at minimum, revised as shown in the redlines.

Standard Provisions, Attachment B:

In the Standard Provisions, it is stated that the Order "may be modified, revoked and reissued, or terminated for cause", citing 40 CFR § 122.41(f). However, the Standard Provisions do not cite 40 CFR § 122.62 or provide that any such modification, revocation or reissuance may only be carried out upon prior notice and hearing. See Water Code § 13263 (regional board, "after any necessary hearing", may prescribe requirements for waste discharges). The Standard Provisions should make clear that any modification, revocation or reissuance of the Order can only be accomplished at a noticed public hearing, with opportunity for comment.

Attachment 8: District-Specific Comments

DISTRICT-SPECIFIC COMMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT ON TENTATIVE ORDER NO. R9-2010-0016, WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s) DRAINING THE COUNTY OF RIVERSIDE

The following comments are made by the Riverside County Flood Control and Water Conservation District (District) with respect to District-specific issues raised by the above referenced Tentative Order (Order) as the Order pertains to the District. These comments are in addition to the comments made by the District and on behalf of the other Copermittees, the County of Riverside and the Cities of Menifee (to the extent that this City will remain as a Copermittee under the Order), Murrieta, Temecula and Wildomar. We also understand that the County and the individual Cities will be filing comments on the Order under separate cover. These comments are intended to supplement those comments filed by the District on behalf of itself and the other Copermittees.

The District reserves the right to make additional comments on the Order prior to the close of the public hearing to adopt the Order.

The focus of these comments is to apprise Regional Board staff of the limited jurisdiction of the District within the Santa Margarita Region and to suggest language clarifying the requirements of the Order to reflect the District's limited jurisdiction. While aspects of the Order clearly apply to the District as an owner and operator of the Municipal Separate Storm Sewer System (MS4) serving the watershed, because of the limited nature of the District's jurisdiction over land areas within the watershed, many cannot. For example, the District, unlike other Copermittees, does not control activities on land not directly owned by the District, nor does it have ordinances or issue permits governing the use of such land. The District simply does not have statutory authority to govern the activities of the residents within a municipal area, unlike the other Copermittees.

Thus, a number of the provisions in the Order are not applicable to the District in the same manner and some are entirely not applicable. This letter highlights those provisions. The comments noted below also are reflected in the redline of the Order submitted with these and other comment white papers.

Comments on Findings

1. Need for New Finding B.2: Section B in the findings describes the regulated parties. The District requests a new finding B.2, which provides as follows:

The Riverside County Flood Control and Water Conservation District (District) is not a municipality but rather operates various elements of the MS4 system within the San Diego Region in the form of flood control structures, including channels. Such channels and other flood control structures have been constructed and are operated by the District in accordance with its statutory obligations established by the Legislature in California Water Code App. § 48-9, to "control the flood and storm waters of said district" and to save and conserve in any manner all or any of such waters and protect from damage from such flood or storm waters the watercourses, watersheds, public highways, life and property in said district." Water Code App. § 48-9(8). As

Attachment 8: District-Specific Comments

a creature of state law, and not a municipal corporation, the District does not exercise jurisdiction over land areas within the San Diego Region and the activities carried out on those land areas outside of its limited rights-of-way. Please see redline.

2. **Findings, Section D.3:** This section of the Findings referring to "Construction and Existing Development" is of limited applicability to the District, since the only construction projects that would be overseen by the District are of or within its own facilities. The redline sets forth a change to clarify this limited applicability.

COMMENTS ON DIRECTIVES

1. **Section F.1.a:** The District, as a non-municipality, does not prepare a General Plan or equivalent because it does not govern development within a geographical area. Thus, the requirements of this section of the Order are not applicable to it. Please see redline.

2. **Section F.1.d.(4)(a)(iii):** Since the District, as a non-municipality, does not have land use codes, policies and ordinances, this provision, relating to the removal of "barriers to LID implementation," is not applicable to it. Please see redline.

3. **Section F.1.d.(9):** The only Priority Development Projects (PDP) relevant to the District would be the District's owned non-flood control channel projects, since it has no authority to permit private or non-District facilities and exercises jurisdiction over no private land areas within the watershed, and because the construction of flood control channels is subject to the jurisdiction of the U.S. Army Corps of Engineers through the Clean Water Act Section 404 permit program, not the NPDES permit program under Section 402 of the Clean Water Act. Thus, this directive, which requires the verification of compliance by third parties with Standard Stormwater Mitigation Plan (SSMP) requirements, is not applicable to the District. Please see redline.

4. **Section F.1.e:** As noted above, the only PDPs over which the District would have authority are its own projects. Thus, this directive, which requires inspection of BMPs at PDPs constructed by third parties, is not applicable to the District. Please see redline.

5. **Section F.1.g:** Since the District is not a municipality, and does not permit third parties to build development projects, this provision is not applicable to it. (It should be noted that this directive also has been objected to by the District on behalf of itself and the other Copermittees.)

6. **Sections F.2, F.2.a and F.2.f:** These directives require each Copermittee to comply with each of the requirements of the section, to review and update its grading and other ordinances, and implement an enforcement process for Construction sites. These requirements are not applicable to the District in the same manner as the other Copermittees, as the District is not a municipality and does not issue grading or other permits for private land use activities. Please see redline.

7. **Sections F.3.b-c:** These directives, which require the development of commercial/industrial and residential programs, are applicable to a municipality but not to the District, which does not have land area occupied by either commercial/industrial or residential developments. Such requirements may be applicable to the municipal Copermittees, but not to the District, which only operates MS4 within the

Attachment 8: District-Specific Comments

Permit area. The District's rights-of-way are limited to that which is necessary to properly operate flood control infrastructure. Please see redline.

8. Section F.3.d: This directive requires development of a retrofitting program for "municipal, industrial, commercial and residential" areas of development. The District only maintains MS4 facilities within the Santa Margarita Region, and does not have jurisdiction over other areas of development. The Order should make clear that any retrofitting requirements (which are the subject of separate comments by the District on behalf of other Copermittees) apply only to development with the jurisdiction of the Copermittee. Clarifying changes are set forth in the redline.

9. Section F.6: This directive contains requirements for education of various target communities, including commercial and industrial owners and operators and residential communities, most of which are not within the jurisdiction of the District. The Order should make clear that such educational programs must be consistent with the jurisdiction of the Copermittees. Clarifying changes are set forth in the redline.

Attachment 10: Fact Sheet Comments

Introduction

These comments on the Fact Sheet should be read in conjunction with the other white papers submitted as part of the comments on the Tentative Order.

Fact Sheet Text, Page 7:

"The First and Second Term Permits, Order Nos. 90-46 and 98-02, provided maximum flexibility. San Diego Water Board Order No. 90-46 contained the "essentials" of the 1990 regulations, but the requirements were written in very broad, generic terms. This was done in order to provide the maximum amount of flexibility to the Copermittees in implementing the new requirements (flexibility was, in fact, the stated reason for issuing the permit in advance of the final regulations). From staff's perspective however, "flexibility" in the form of lack of specificity, combined with the Copermittees' *lack of funding and political will*, also provided the Copermittees with ample reasons to take few substantive steps towards achieving water quality standards. The situation was exacerbated by the San Diego Water Board's own lack of storm water resources for oversight."

Problem with Text:

The statement regarding a 'lack of funding and political will' is unsupported and inflammatory, and provides no benefit in a public document.

Suggestion:

Delete this statement.

Fact Sheet Text, Page 12 and 13:

"It is very difficult to ascertain the true cost of implementation of the Copermittees' management programs because of inconsistencies in reporting by the Copermittees. Reported costs of compliance for the same program element can vary widely from city to city, often by a very wide margin that is not easily explained.⁶ Despite these problems, efforts have been made to identify management program costs, which can be helpful in understanding the costs of program implementation....

A study on Phase I MS4 program cost was also conducted by the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board), where program costs reported in the municipalities' annual reports were assessed. The Los Angeles Water Board estimated that average per household cost to implement the MS4 program in Los Angeles County was \$12.50. ⁸ Since the Los Angeles County permit is very similar to Order No. R9-2004-001, this estimate is also useful in assessing general program costs in Riverside County.

The State Water Board also commissioned a study by the California State University, Sacramento to assess costs of the Phase I MS4 program. This study includes an assessment of costs incurred by Phase I MS4s throughout the State to implement their programs. Annual cost per household in the study ranged from \$18-46, with the Fresno-Clovis Metropolitan Area (FCMA) representing the lower end of the range, and the City of Encinitas (in San Diego County) representing the upper end of the range.⁹ Included in the study is the City of Corona, which is in Riverside County

Attachment 10: Fact Sheet Comments

under the jurisdiction of the California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board).

The annual cost per household for the City of Corona's program was estimated to be \$32, which should be similar to the costs to implement the MS4 programs in the Riverside County portion of the San Diego Region. In contrast, the cost of the City of Encinitas' program, with an annual cost per household estimated to be \$46, may represent the upper range of Riverside County MS4 programs. However, the City of Encinitas's program cost can be considered as the high end of the spectrum for management program costs because the City has a consent decree with environmental groups regarding its program, and City of Encinitas has received recognition for implementing a superior program.

The annual costs for the City of Corona and City of Encinitas were estimated from data collected in 2003-2004. Between 2003 and 2008, the number of households in both cities has increased by approximately 3 percent and 7 percent, respectively.¹⁰ In contrast, between 2003 and 2008 the number of households in the City of Temecula has increased from 23,199 to 31,135 (34 percent)¹¹ and the City of Murrieta has increased from 22,020 to 32,664 (48 percent).¹² This significant increase in number of households indicates a significant increase in the tax base (sales and property tax) available to fund the implementation of the MS4 programs for the City of Temecula and City of Murrieta, as well as for the County of Riverside and recently incorporated cities."

Problem with Text:

The text notes that it is difficult to compare costs between Cities for stormwater program implementation since the cost accounting varies widely, and the specific issues also vary widely. Despite this fact, the fact sheet goes on to make just such comparisons and further implies that the Santa Margarita Region Cities are underfunding their programs by comparison. For example, the City of Encinitas is cited as an example of a city that is spending on the upper end for a stormwater program. The City of Encinitas varies significantly from the cities in the Santa Margarita area in that it must address a major outfall (Cottonwood Creek) at its primary beach (Moonlight Beach). Cottonwood Creek has perennial dry weather flow from urban sources and exceeds REC-1 and REC-2 water quality standards. Since Cottonwood Creek discharges at Moonlight Beach, frequent sanitary standard exceedences were noted on a year-round basis. The City of Encinitas constructed a dry weather flow treatment plant near Moonlight Beach to treat Cottonwood Creek to correct this problem. No such compliance problems exist for the Copermittees. The comparisons in this part of the fact sheet are not valid.

In addition, the Fact Sheet leaves the inaccurate impression that the Copermittees have ample financial resources to fund MS4 programs by completely ignoring the effects of the current national recession. (See Attachment 2). As pointed out in Attachment 2 (Economic Assessment), declines in home values and tax receipts have crippled the ability of the Copermittees to finance such programs. The Fact Sheet selectively examines the period 2003-2008, when there was significant growth, but ignores the period 2008-2010, when that growth ended and the economy declined precipitously, affecting property and sale tax receipts as well as other sources of revenue.

Attachment 10: Fact Sheet Comments

Suggestion:

Delete the text on Page 13 and 14 of the Fact Sheet.

Fact Sheet Text Page 15:

"The vast majority of costs that will be incurred as a result of implementing OrderNo. R9-2010-0016 is not new. Storm water management programs have been in place in Riverside County for over 15 years. As shown in the discussion above, the amount spent for MS4 Permit compliance per household in the municipalities in the Riverside County portion of the San Diego Region is already low compared to other regions. Any increase in cost to the Copermittees, however, is still expected to be incremental in nature. Since Order No. R9-2010-0016 "fine tunes" the requirements of Order No. R9-2004-001, these cost increases are expected to be modest.

Where there may be additional elements that will incur new costs, the Riverside County Copermittees are given the time to develop the budgets and funding mechanisms to phase those elements into their programs. Additionally, development of these additional elements by the Riverside County Copermittees will have the benefit of the experiences and work already done by the San Diego County and Orange County Copermittees."

Problem with Text:

The Fact Sheet states that the vast majority of costs for implementing the Tentative Order are 'not new'. This is not correct. Almost every program in the Tentative Order has been amended and require new resources. Specific programs include, but are not limited to, the monitoring program (over fivefold increase in costs), hydromodification management programs, new development programs, inspection programs, irrigation runoff prohibitions, retrofit studies and MS4 maintenance programs. The very prescriptive and detailed requirements of the Tentative Order impose new requirements on the Copermittees at a time when funding sources are drying up. The Copermittees estimate that implementation of the regional components of the new Order (as written) will cost approximately \$11,500,000 (e.g. the costs to write the new compliance documents, develop the retrofit, hydromodification programs and develop and implement the new monitoring program). These costs are on top of the current expenditures to implement the existing regional monitoring program (approximately \$5,000,000 for the five-year permit term). These costs are further amplified by the direct cost of implementation that will be incurred by the individual Permittees (e.g. the cost to implement the new compliance documents and hydromodification programs). The text further indicates that the Tentative Order provides time for the Permittees to 'develop...funding mechanisms'. This statement assumes that the Copermittees have the ability to collect additional funds from taxpayers to support the stormwater program implementation. This is false, since any such funds, outside of inspection or plan review fees, would be required to be submitted to a vote of the people pursuant to Propostion 218. In the current economic and political climate, a successful vote to increase taxes is extremely remote. The Copermittees further note that in the City of Encinitas in Orange County, cited by the staff as an example of proactive MS4 regulation, a minimal stormwater proposition recently was voted down.

Suggestion:

Delete the text noted above in the Fact Sheet and add a discussion on the difficulties of funding expansions to the Copermittees' stormwater programs due to Proposition 218.

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Fact Sheet Text Page 16:

"For example, household willingness to pay for improvements in fresh water quality for fishing and boating has been estimated by USEPA to be \$158-210.18. This estimate can be considered conservative, since it does not include important considerations such as marine waters benefits, wildlife benefits, or flood control benefits. The California State University, Sacramento study reports that the annual household willingness to pay for statewide clean water is approximately \$180.19. When viewed in comparison to household costs for existing management programs, household willingness to pay estimates exhibit that per household costs incurred by the Riverside County Copermittees to implement their management programs are very low."

Problem with Text:

The discussion in the referenced text is not represented correctly. The figure cited in the California State University, Sacramento study includes the cost of wastewater treatment. The author of the study notes:

'The survey question was for restoring water quality for all waters throughout the state from all impairment, not just within a city or region and not just for impairment from stormwater pollution.' The current cost for sewer fees exceed \$200 per year, Thus, the vast majority of the "household willingness" figure relates to sanitary sewer costs, and not to the costs of addressing stormwater.

Suggestion:

Delete this text in the fact sheet and note that the cost consumers are currently paying for clean water in the Permit area exceeds that which studies cited have found they are willing to pay.

Fact Sheet Text Page 17:

"University of California, Los Angeles assessed the costs and benefits of implementing various approaches for achieving compliance with the MS4 permits in the Los Angeles Region. The study found that non-structural systems would cost \$2.8 billion but provide \$5.6 billion in benefit. If structural systems were determined to be needed, the study found that total costs would be \$5.7 to \$7.4 billion, while benefits could reach \$18 billion.²¹ Costs are anticipated to be borne over many years – probably ten years at least. As can be seen, the benefits of the programs are expected to considerably exceed their costs. Such findings are corroborated by USEPA, which found that the benefits of implementation of its Phase II storm water rule would also outweigh the costs."

Problem with Text:

It is a basic principle that public spending should have a positive cost-benefit. The Fact Sheet implies that since spending on stormwater has a positive cost-benefit, such spending should be increased. The reality is that there are also other public spending priorities such as police, fire, ambulance, and public utilities competing for the same funding, all of which have positive cost-benefit ratios. Moreover, the UCLA study specifically focused on the benefit of improving beach water quality, which is a very significant economic factor in terms of tourism in coastal Los Angeles County. No beaches exist in the Santa Margarita Region, and given the ephemeral nature of many of the Region's waterways, attempting to extrapolate the UCLA study is not appropriate. In the absence of a similar cost-benefit study being undertaken in the Santa Margarita Region, the studies cited by staff do not provide any basis for the conclusions reached in the Fact Sheet.

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Suggestion:

As the fundamental basis for this comment is flawed, in the absence of any local data for inland waterbodies in semi-arid climates, the text should be deleted.

Fact Sheet Text Page 35:

"Trash, as litter in both solid and liquid form, is consistently found on and adjacent to roadways. A California Department of Transportation Litter Management Pilot Study found that of roadway trash, plastics and Styrofoam accounted for 33 percent of trash by weight, and 43 percent by volume. Further, the study found that approximately 80 percent of the litter associated with roadways was floatable, indicating that, without capture, this litter would enter Waters of the State after a storm event, resulting in the impairment of Beneficial Uses.⁴⁵ The study, however, relied upon a mesh capture size of 0.25 inches (6.35 millimeters). This size is too large to effectively capture plastic pre-production pellets (a.k.a. "nurdles"), which are roughly 3 mm in size, and likely underestimated the total contribution of plastics. Furthermore, pre-production plastic pellets, which are small enough to be easily digested, have been found to carry persistent organic pollutants, including PCBs and DDT."

Problem with Text:

While the Fact Sheet suggests that there is a compelling argument to address trash along Caltrans highways, such a problem is not found on municipal streets. The Caltrans studies found that a substantial portion of the litter load comes from uncovered loads on commercial and private vehicles. The low speed roadways operated by the Copermittees do not create similar conditions or handle similar traffic. Further, the text discusses pre-production plastics (nurdles), yet fails to acknowledge that there are no industries within the Copermittees' jurisdiction that manufacture or use this material. The Fact Sheet's citation of studies that have no bearing on actual conditions within the Santa Margarita Region cannot be used to justify programs in the Tentative Order addressing such non-existent conditions. The ROWD has a more informed discussion of trash issues based on actual conditions in the Santa Margarita Region.

Suggestion:

Revise the fact sheet text to discuss the current findings relative to trash in the Permit region based on the ROWD.

Fact Sheet Text Page 50 and 51

Pg. 50 - "To date the San Diego Water Board and the Copermittees have identified overspray and drainage from potable and reclaimed water landscape irrigation as a substantial source and conveyance mechanism for pollutants into waters of the United States."

Pg. 51 – "The San Diego Water Board and the Copermittees have identified irrigation water as a source of pollutants and conveyance of pollutants to waters of the United States, when applied improperly in excess and thereafter entering the MS4, in the following documents:"

Problem with Text:

The documents cited in the Fact Sheet do not support the conclusion that irrigation water is a source of pollutants or conveyance of pollutants in the *Santa Margarita Region*. First, the comments in the public education document cited in the Fact Sheet were borrowed from an Orange County publication, and do not represent any official conclusion by the Copermittees that irrigation water represents a water quality

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threat. Plainly over-irrigation is to be discouraged, as even if the water is clean, it adds to the Copermitees' costs of addressing such waters. Second, this public education document is the *only* document from a Santa Margarita Region source. The other documents cited by staff are studies conducted in other areas, with different hydrology and climate. For a more comprehensive assessment of the irrigation runoff issues, please see Attachment 6 (Prohibition of Irrigation Runoff).

Suggestion:

Delete the referenced text and the quotes referencing Permittee education materials. Also remove the improperly supported irrigation runoff prohibition.

Revise the text to accurately reflect the lack of any connection between irrigation runoff and impairments of receiving waters in the Santa Margarita Region.

Fact Sheet Text Page 58:

"Enforcement and inspection activities conducted by the San Diego Water Board during the previous permit term have found a lack of source control for many unpaved roads within the jurisdiction of the Copermitees."

Problem with Text:

The Copermitees submit that there is no evidence reflecting any substantial water quality problem relating to MS4 discharges affected by unpaved roads. Moreover, the mileage of unpaved roads in the jurisdiction of the Copermitees is a small percentage of the total mileage of unpaved roads in the Santa Margarita Region, given that many of these roads are operated by such jurisdictions as the U.S. Forest Service. Please see Attachment 5 (Unpaved Roads). Further, the Fact Sheet notes on page 27 that Permits "will cover municipal systems discharges in unincorporated portions of the county, it is the intent of EPA that management plans and other components of the program focus on the urbanized and developing area of the County". Dedicating resources to unpaved roads diverts already limited resources from the urbanized areas intended to be addressed by USEPA regulations.

Suggestion:

The references and associated program requirements should be removed from the Permit and addressed through a separate general permit for unpaved roads, if in fact unpaved roads are a significant source of pollutants.

Fact Sheet Text Page 69:

"The order also found that the SSMP requirements are appropriately applied to the majority of the Priority Development Project categories that are also contained in section F.1 of this Order. The State Water Board also gave California Regional Water Quality Control Boards (Regional Water Boards) the needed discretion to include additional categories and locations, such as retail gasoline outlets(RGOs), in SSMPs "

"The provisions of the SSMP section of the Order are also consistent with those previously issued by the San Diego Water Board for Riverside County (Order No. R9-2004-001), Southern Orange County (Order Nos. R9-2002-0001 and R9-2009-0002) and San Diego County."

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Problem with Text:

Several PDP categories or thresholds are not supported by Order WQ 2000-11 such as the 10,000 square feet requirement for residential areas nor the 1-acre threshold for all development projects. Further the Order ignores other applicable portions of Order WQ 2000-11. Specifically, the memo from State Board Chief Counsel Craig S. Wilson transmitted WQ Order 2000-11 to the Regional Board executive officers states that with regard to discretion that:

"3. The Order allows broader discretion by the Regional Water Boards to decide whether to include additional types of development in future SUSMPs. These areas for potential future inclusion in SUSMPs include retail gasoline outlets, ministerial projects (only discretionary projects are included in the approved SUSMPs), and projects in environmentally sensitive areas. **If Boards include these types of developments in future permits, the Order explains the types of evidence and findings that are necessary.**"

Order 2000-11 requires that revisions to regulatory thresholds be justified economically. The Copermitees have expressed their concern with requirement F.1.d.(2)(a) regulating residential developments of 10,000 sq. ft. or more and requirement F.1.d.(1)(c) regulating any project 1-acre or more. These thresholds, and their relative impact on project proponents, have not been adequately justified. The Permittees have noted that these regulations will negatively impact the construction of custom homes (individual lot developments). The relative economic impact of meeting the SSMP requirements for individual homeowners has not been justified in the fact sheet.

Suggestion:

As shown in the redline markup (Attachment 9); The 1-acre SSMP threshold (F.1.d.(1)(c)) should be deleted and the 10,000 square feet threshold for residential areas (F.1.d.(2)(a)) should be made the same as the requirement contained in the Riverside County Santa Ana NPDES MS4 Permit.

Fact Sheet Text Page76:

"The success of future stream restoration and stabilization is, however, dependent on preventing and reducing physical impacts from activities upstream. Therefore, hydromodification management measures are necessary upstream of modified (e.g. concrete, rip rap, etc.) channels in addition to non-modified channels."

Problem with Text:

In some areas, hardened channels may be needed for flood control and public safety. In those areas, channel restoration may not be feasible and onsite controls are not warranted. The protection of public safety from flooding is a statutorily required duty of the District. See Water Code App. Section 48-9. Any provisions of the Tentative Order that would presume to challenge this duty must be deleted. The District assumes that the Regional Board and staff are not placing themselves in the position of making flood control judgments, as the agency is neither charged by the Legislature with such obligation nor is the agency equipped to do so.

Suggestion:

Revise the text to add "except where hardened channels are required for the protection of public safety"

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Fact Sheet Text Page 77:

"Since municipalities are the lead permitting authority for industrial land use and construction activities, they are also the lead for enforcement regarding runoff discharges from these sites."

Problem with Text:

This is a leap of logic we should probably not let pass. The Copermittees can greatly influence the design and construction, but the Industrial Permit is focused on the operation of the facility, and that is where the authority of the Board lies - and is arguably the most important aspect of runoff quality from the site.

Suggestion:

Delete the sentence.

Fact Sheet Text Page 79:

"To clarify, an unaltered natural drainage, which receives runoff from a point source (channeled by a Copermittee to drain an area within their jurisdiction), which then conveys the runoff to an altered natural drainage or a man-made MS4, is both an MS4 and a receiving water."

Problem with Text:

As noted in Attachment 7 (General Legal Comments) regarding Finding D.3.c., a natural drainage, whether or not it conveys point source runoff to a man-made MS4, is not itself part of the MS4.

Suggestion:

Delete text.

Fact Sheet Text Page 79:

"As operators of the MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to waters of the U.S., the operator essentially accepts responsibility for discharges into the MS4 that it does not prohibit or otherwise control. These discharges may cause or contribute to a condition of contamination or a violation of water quality standards."

Problem with Text:

First, the Copermittees, as operators of the MS4, are required to address storm drainage. During storm conditions in particular, the District is required to handle flood waters so as to protect the lives and property of residents of Riverside County. The failure to do so is a violation of state law. See Water Code App. Section 48-9. Thus, the Copermittees must "passively receive and discharge" waters from third parties, which waters may contain pollutants. Moreover, the operator of the MS4 is NOT accepting responsibility for discharges from other MS4 systems. There is no provision for joint liability under the federal Clean Water Act or the California Water Code. The former directs its prohibitions against a "discharger," and no others. 33 U.S.C. §§ 1319 and 1342. A party is responsible only for its own discharges or those over which it has control. *Jones v. E.R. Snell Contractor, Inc.*, 333 F.Supp.2d 1344, 1348 (N.D. Ga. 2004); *United States v. Sargent County Water Dist.*, 876 F.Supp. 1081, 1088 (D.N.D. 1992).

The Clean Water Act MS4 regulations, moreover, specifically provide that Copermittees under an MS4 Permit are required to "comply with permit conditions relating to discharges from the municipal separate storm sewers for which they are operators." 40 C.F.R. § 122.26(a)(3)(vi) (emphasis supplied). Moreover,

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the Regional Board, as the permitting agency for stormwater and Industrial Permits, and the State Board as the overall agency responsible for compliance with the Clean Water Act in California, are responsible for ensuring that the discharges from such permitted facilities, whether or not they enter the MS4, are in compliance with the requirements of those permits. Finally, many sources of pollutants are beyond the control of the MS4 operators but are within the control of other agencies, if those agencies elect to exercise their authority. A major example is the discharge of metals from motor vehicle brake pads, which contributes to exceedances of copper, zinc and potentially other metals in stormwater. The MS4 operators cannot control the composition of brake pads, nor can the MS4 operators control air emissions from domestic and foreign sources that discharge pollutants onto the surface area of the region, which can then wash into the MS4 systems.

Suggestion:

Delete cited text.

Fact Sheet Text Page 81:

"Since treatment generally does not occur within the MS4, in such cases reduction of storm water pollutants to the MEP must occur prior to discharges entering the MS4."

Problem with Text:

Nothing in the MS4 regulations prohibits use of the MS4 for treatment. Frankly, some of the most effective treatment facilities for pollutants may be located in the MS4 as part of regional treatment systems. An example are catch basins, which collect trash and other debris and detention and retention basins that can be used to capture, treat and infiltrate runoff.

Suggestion:

Delete cited text.

Fact Sheet Text Page 84:

"When appropriately applied as in this Order, retrofitting existing development meets MEP."

Problem with Text:

Only retrofits that are applied with the requirements of the Order meet MEP, which is not the case.

Suggestion:

Delete the text.

Fact Sheet Text Page 88:

"The RWL language in the Order requires storm water compliance with water quality standards through an iterative approach for implementing improved and better-tailored BMPs over time. The iterative BMP process requires the implementation of increasingly stringent BMPs until receiving water quality standards are achieved. This is necessary because implementation of BMPs alone cannot ensure attainment of receiving water quality standards."

Problem with Text:

61 Federal Register 57425 (1996), Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits states "expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards."

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Suggestion:

The second sentence should be revised to reflect the actual text from federal regulations (specifically "in subsequent permits"). Further the last sentence does not make sense and is contrary to the proceeding text and should be deleted.

Fact Sheet Text Page 112:

"The San Diego Water Board has responded to complaints about and observed runoff from over-irrigation entering the MS4s in the Riverside County portion of the San Diego Region."

Problem with Text:

There is no evidence in the fact sheet supporting this statement.

Suggestion:

Provide evidence or delete statement.

Fact Sheet Text Page 130:

"This section requires the use of native and/or low water use plants for landscaping."

Problem with Text:

There was an agreement that this would be suggested but not a requirement. This requirement also mandates the means of compliance, in violation of Water Code section 13360.

Suggestion:

Change the text:

"Section ~~requires~~ suggests the use of native and/or low water use plants for landscaping,"

Fact Sheet Text Page 136:

"This requirement is needed because to date, the Copermittees have generally approved low removal efficiency treatment control BMPs without justification or evidence that use of higher efficiency treatment BMPs was considered and found to be infeasible."

Problem with Text:

The Copermittees challenge the accuracy of this Statement. Riverside County has been requiring landscaped based low impact development BMPs since 2005. The District has also spent a substantial sum of money and time developing BMP manuals with specific criteria to ensure the effectiveness of BMPs.

Suggestion:

Delete the unsupported and offensive statement.

Fact Sheet Text Page 142:

"Where streams are hardened and/or buried to convey storm water, they cannot provide adequate water quality."

Problem with Text:

Unsupported and incorrect. Hardened channels can be designed to provide both flood protection and natural stream function. For example, hardened levees can be designed to be set back and backfilled with native material, effectively providing a natural substrate for stream function. Similarly, porous channel materials such as gabions can provide both flood protection and substrate for native habitat. Finally,

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even underground systems can be connected to regional treatment systems that provide requisite water quality benefits where appropriate.

Suggestion:

Delete.

Fact Sheet Text Page 145:

"Redevelopment projects, however, must be able to achieve post-project runoff flow rates and durations that are less than or equal to pre-project and down to pre-development runoff flow rates and durations to be eligible to receive a waiver under the program."

Problem with Text:

This requirement is self-defeating. By placing regulatory obligations on redevelopments that make the cost of redevelopment greater than the cost of developing on virgin land, the Permit effectively promotes inner-city blight as existing structures are abandoned and suburban development is promoted due to economic factors. The Permit should include accommodations for redevelopment to ensure that existing developed areas are economically preferable for new development and to prevent the onset of unnecessary additional impervious area.

Suggestion:

The Permit and fact sheet should be revised to offer exemptions for hydromodification requirements for redevelopments where such improvements are infeasible.

Fact Sheet Text Page 160:

"Retrofitting existing development is practicable for a municipality through a systematic evaluation, prioritization and implementation plan focused on impaired water bodies, pollutants of concern, areas of downstream."

Problem with Text:

Although the current requirement simply calls for a study, it is expected that future permits will require implementation of said study. This study exceeds the requirements for Copermittees to evaluate opportunities for retrofit of the MS4 contained in the federal regulations and federal Clean Water Act. There are no revenues to promote such a program.

Suggestion:

The Board should recognize in the fact sheet that without funding provided by the state, there is no revenue for such a program.

Fact Sheet Text Page 161:

"Section F.3.d.(4) requires each Copermittee to cooperate with private property owners to encourage the implementation of site specific retrofitting projects. Because the Copermittees have limited authority to directly require retrofitting projects on private property, the Copermittees must encourage private property owners to implement retrofitting projects through indirect programs and incentives."

Problem with Text:

If the Board wishes to promote urban retrofit, then they also need to incentivize the program. Currently, property owners wishing to volunteer for urban retrofit projects are required to comply with the SSMP,

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including hydromodification and LID requirements, opt into BMP inspection programs and subject themselves to ongoing scrutiny through business inspection programs required by the Permit. The permit places an ECONOMIC DISINCENTIVE in the way of promoting a general good for the watershed. The purpose of this requirement is to promote acceleration of water quality benefits from existing urban areas. The requirements, as written, promote a program that is doomed to failure.

Suggestion:

The Board should clearly exempt urban retrofit projects from the new development requirements of the Permit if they wish to accelerate water quality improvements from existing urban areas.

Fact Sheet Text Page 162:

"Periodic inspections may be performed to ensure the site owner has not removed the retrofit BMPs."

Problem with Text:

Similar to the prior comment, this creates a disincentive to retrofit BMPs.

Suggestion:

Delete.

Fact Sheet Text Page 163:

"Section F.4.b ...access points (i.e. manholes), connections..."

Problem with Text:

The text from the Phase I rule implementing the NPDES regulations and the requirement of the storm drain system map is:

(from Federal Register, Vol 55, No 222, Friday Nov 18, 1990):

"[submit] a USGS 7.5 minute topographic map...[showing] The location of known municipal storm sewer system outfalls discharging to waters of the United States...the location of major structural controls for storm water discharge (retention basins etc) and the identification of publicly owned parks, recreation areas and other open lands."

The proposed requirements exceed the federal regulatory requirements for MS4 mapping. Further, the mapping of manholes is a significant economic burden that would have no benefit for our staff. Manholes are typically placed at regular intervals (300 – 500 feet) on underground storm drain systems. Once a map providing the location of the MS4 system is available, manholes are quickly located through visual inspection in the field. Further, storm drain plans that are available to Permittee staff can be used to locate specific manholes where absolutely necessary. The economic costs of mapping potentially thousands of manholes is not offset by any known benefit.

Suggestion:

Delete requirement to map manholes.

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Fact Sheet Text Page 198:

"Section II.D (High Priority Inland Aquatic Habitat) of the MRP describes required monitoring to be done in order to assess if MS4 storm water and/or non-storm water discharges are affecting high priority aquatic and/or riparian species."

Problem with Text:

This requirement was deleted from the Orange County NPDES MS4 Permit when the provision to assess outfalls using NALs and SALs was added. It is not clear why such an accommodation would not also be provided to the Riverside County NPDES MS4 Program. This region has significantly less economic resources than south Orange County or San Diego County to implement monitoring programs. The Permittees specifically request this be deleted as impacts to aquatic habitat will be detected through the NAL/SAL program.

Suggestion:

This requirement should be deleted.



State of California

M e m o r a n d u m

: Archie Matthews
Division of Water Quality

Date: FEB 11 1993

Elizabeth M. Jennings

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Subject: DEFINITION OF "MAXIMUM EXTENT PRACTICABLE"

ISSUE

What is the meaning of the standard "maximum extent practicable" (MEP) as used in the Clean Water Act's storm water provisions, and how can this standard be communicated to the regulated community? How can this concept be included in the draft BMP manual?

CONCLUSION

The standard "maximum extent practicable" is not specifically defined for use in the storm water program. It has been defined in other rules, however, to require taking all actions which are technically feasible. I have included draft language for the manual.

DISCUSSION

Section 402(p) of the Clean Water Act (33 U.S.C. § 1342(p)) provides that permits issued for discharges from municipal separate storm sewers must require controls to reduce the discharge of pollutants "to the maximum extent practicable". The statutory language provides that municipal permits:

"Shall require controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other



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provisions as the [EPA] Administrator or the State determines appropriate for the control of such pollutants." Clean Water Act Section 402(p)(3)(B)(iii); 33 U.S.C. § 1342(p)(3)(B)(iii).

Neither Congress nor the U.S. Environmental Protection Agency (EPA) has defined the term "maximum extent practicable", and yet this is the critical standard which municipal dischargers must attain in order to comply with their permits. (The State could have spelled out the specific controls which the municipalities were required to undertake. However, such an approach would have relinquished the municipal dischargers of any flexibility in implementing their storm water programs.)

On its face, it is possible to discern some outline of the intent of Congress in establishing the MEP standard. First, the requirement is to reduce the discharge of pollutants, rather than totally prohibit such discharge. Presumably, the reason for this standard (and the difference from the more stringent standard applied to industrial dischargers in Section 402(p)(3)(A)), is the knowledge that it is not possible for municipal dischargers to prevent the discharge of all pollutants in storm water. The second point which is clearly encompassed in the standard is that it is the permitting agency, and not the discharger, which is the ultimate arbiter on whether there has been sufficient reduction of pollutants.

The most difficult issue is determining how much pollutants must be reduced, or, in other words, which best management practices (BMPs) must be employed in order to comply with the MEP standard. While the term is not defined in the Clean Water Act or the EPA regulations, the same term does appear in other federal laws and regulations, and there are some definitions or interpretations which may be useful to the storm water program.

In the Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. § 7901, et seq.), the Department of Energy was required to designate within one year of the Act's adoption "to the maximum extent practicable" contaminated areas within the vicinity of uranium processing sites. In addressing a lawsuit brought after the Department designated very few of the "vicinity properties", the federal court declared that MEP means "a substantial majority of the locations" should have been designated within the year. Sierra Club v. Edwards (D.C.D.C. 1983) 19 ERC 1357. Where a NEPA regulation required that "to the maximum extent practicable" environmental clearance was required for uncompleted projects which had never undergone NEPA review, a court held that the regulation "mandates a meaningful



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environmental review" rather than a "perfunctory evaluation".
Save the Courthouse Committee v. Lynn (S.D.N.Y. 1975) 408
F.Supp. 1323.

In an interim final regulation recently promulgated by the Department of Transportation, MEP is defined, where operators of onshore oil pipelines must have resources "to the maximum extent practicable" to remove and to mitigate or prevent worst case discharges. 49 CFR Part 194. MEP is defined to mean:

"The limits of available technology and the practical and technical limits on an individual pipeline operator in planning the response resources required to provide the on-water recovery capability and the shoreline protection and cleanup capability to conduct response activities"

Finally, the term MEP is used in the Superfund legislation, wherein permanent solutions and alternative treatment technologies must be selected "to the maximum extent practicable". CERCLA, Section 121(b). The legislative history of the language indicates that the relevant factors in determining whether MEP is met include technical feasibility, cost, and state and public acceptance. 132 Cong. Rec. H 9561 (Oct. 8, 1986).

While each of the above interpretations and definitions varies, they do follow a pattern. The pattern that emerges is that there must be a serious attempt to comply, and that practical solutions may not be lightly rejected. If a municipality reviews a lengthy menu of BMPs, and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. In any case, the burden would be on the municipal discharger to show compliance.

The definitions contained in the pipeline regulation and the Superfund legislative history are most analogous to storm water regulation. The major emphasis in both of these rules are technical feasibility. Similarly, the municipal dischargers should be required to employ whatever BMPs are feasible, i.e., are likely to be effective and are not cost prohibitive. Thus, where a choice may be made between two BMPs which should provide generally comparative effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs which would address a pollutant source or to pick a BMP based solely on cost, which would be clearly less effective.



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As you know, the BMP Guidance manual is being published by the Task Force, which is made up of dischargers, rather than by the State Water Board. As far as I know, there is no intention for the State Water Board to adopt the manual as its own guidance document. Therefore, it is important to stress in the manual, both in the section on MEP and in the front of the manual, that this manual is not a publication of the State or the Regional Water Boards, and that these Boards have not specifically endorsed the contents. Rather, the manual was assembled by a group of dischargers in the interest of assisting themselves and others to comply with the storm water permits. In the section on MEP, it should be stated that the final determination regarding whether a discharger was reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, but that selection and implementation of BMPs through consideration of the listed factors should assist dischargers in achieving compliance.

The following language is suggested in order to clarify that the manual is not the product of the State Water Board:

"This Manual was produced and published by the Storm Water Task Force, an advisory body of municipal agencies regulated by the storm water program. This Manual is not a publication of the State Water Resources Control Board or any Regional Water Quality Control Board, and none of these Boards has specifically endorsed the contents thereof. The purpose of this manual is to assist the members of the Task Force and other dischargers subject to storm water permits, in attaining compliance with such permits."

The following language is recommended in place of Insert A in the manual for municipal dischargers:

"Although MEP is not defined by the federal regulations, use of this manual in selecting BMPs should assist municipalities in achieving MEP. In selecting BMPs which will achieve MEP, it is important to remember that municipalities will be responsible to reduce the discharge of pollutants in storm water to the maximum extent practicable. This means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive. The following factors may be useful to consider:

1. Effectiveness: Will the BMP address a pollutant of concern?



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- '2. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?
- '3. Public acceptance: Does the BMP have public support?
- '4. cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?
- '5. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc.?

"After selecting a menu of BMPs, it is of course the responsibility of the discharger to insure that all BMPs are implemented."



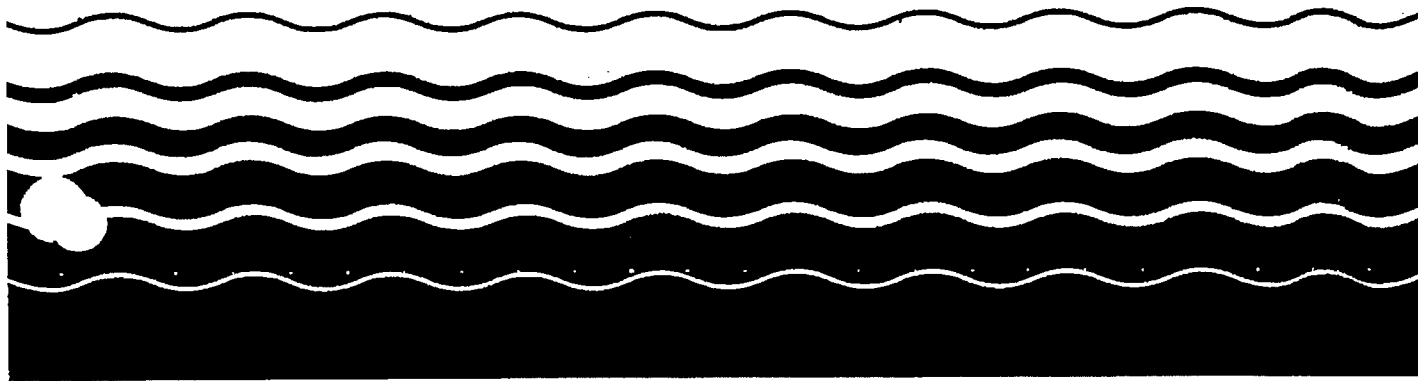
United States
Environmental Protection
Agency

Office Of Water
(EN-336)

EPA 833 June 30, 1981
November 1981

Revised
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Guidance Manual For The Preparation Of Part 2 Of The NPDES Permit Applications For Discharges From Municipal Separate Storm Sewer Systems



§122.26(d)(2)(iv)(B) [The application must include a) description of a program, including a schedule, to detect and remove (or require the discharger to the municipal separate storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer

The NURP study concluded that the quality of urban runoff can be adversely impacted by illicit connections and illegal dumping. Often, large amounts of wastes, particularly used oils, are improperly disposed of in storm sewers. Elimination of these sources of pollutants would result in a dramatic improvement in the quality of storm water discharges from MS4s. Procedures to eliminate such discharges should be an important part of the proposed management program.

The regulatory requirement cited above is intended to directly implement the mandate of Section 402(p)(3)(B)(ii) of the CWA, which requires permits for MS4s to effectively prohibit non-storm water discharges into storm sewers. In certain instances, the most appropriate action will be for the municipality to ensure that illicit discharges become covered by a NPDES permit. However, in most cases, elimination of illicit discharges or improper dumping is the appropriate focus of this program component. The quality of storm water runoff from inner-city core areas, particularly in older parts of the country, would benefit most from this component.

The applicant should propose a schedule for implementing this program component throughout the initial permit term. This schedule should reflect the priorities identified by the municipality during the application process and be based on the problems particular to the specific MS4.

6.5.1 Prohibiting Illicit Discharges

The proposed management program must include a description of inspection procedures,

orders, ordinances, and other legal authorities necessary to prevent illicit discharges to the MS4.

§122.26(d)(2)(iv)(B)(1) [The application must include a) description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description shall address all types of illicit discharges, however the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States [these sources are listed in the guidance].

This proposed management program component also should describe how the prohibition on illicit discharges will be implemented and enforced. The description should include a schedule and allocation of staff and resources. A direct linkage should exist between this program component and the adequate legal authority requirements for the ordinances and orders to effectively implement the prohibition of illicit discharges.

While this program component is required to prohibit all types of illicit discharges, the following categories of non-storm water discharges need only be prohibited by the MS4 when they are identified by the MS4 as sources of pollutants to waters of the United States:

- Water line flushing
- Landscape irrigation
- Diverted stream flows
- Rising ground waters
- Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to separate storm sewers
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensation
- Irrigation water

- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Individual residential car washing
- Flows from riparian habitats and wetlands
- Dechlorinated swimming pool discharges
- Street wash water

While EPA does not consider these flows to be innocuous, they are only regulated by the storm water program to the extent that they may be identified as significant sources of pollutants to waters of the United States under certain circumstances. If an applicant knows, for example, that landscape irrigation water from a particular site flows through and picks up pesticides or excess nutrients from fertilizer applications, there may be a reasonable potential for a storm water discharge to result in a water quality impact. In such an event, the applicant should contact the NPDES permitting authority to request that the authority order the discharger to the MS4 to obtain a separate NPDES permit (or in this case, the discharge could be controlled through the storm water management program of the MS4)

The applicant should consider the specific land use, age, and stage of development in this program component. For example, one study in an established metropolitan area found that 60 percent of automobile-related businesses had improper storm drain connections. While some of the problems discovered in this study were the result of improper plumbing or illegal connections to storm drains, the majority of the connections were approved by the municipality when they were built

For problem identification and problem-solving, a municipality may elect to implement a follow-up study that traces identified pollution incidents to their source (e.g., up the system). A variety of pollutant-tracing techniques and field screening can be used to identify illicit discharges

6.5.2 Field Screening

Part 1 of the application requires applicants to submit the results of field screening studies to evaluate the possible occurrence of illicit connections and improper dumping [§122.26(d)(1)(iv)(D)]. Dry weather flows that were encountered during the initial field screening were sampled and analyzed. The analysis was intended to provide information about illicit connections and improper dumping.

In Part 2, applicants are required to propose procedures for continued field screening during the term of the permit.

§122.26(d)(2)(iv)(B)(2) [The application must include a] description of procedures to conduct on-going field screening activities during the life of the permit, including areas or locations that will be evaluated by such field screens

Applicants can propose to use procedures similar to those used for field screening required in Part 1 of the application or they can propose alternative procedures and techniques. The Part 1 field screening requirements are found in §122.26(d)(1)(iv)(D) and are explained in the Part 1 guidance manual

The Part 2 proposed field screening program component should describe areas of the system where the continuation of the field screening program will be conducted and the rationale for selecting these areas. For example, the rationale for continuing field screening at a given location might be that a wide variation in results was obtained during the initial screens. In addition, the applicant should propose field screening for a portion of any recently-identified major outfalls that were not known to the applicant when it prepared its Part 1 application, provided sampling of these outfalls is safe and practicable



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Poway drops its stormwater fee charge

Research shows city should have placed levy on ballot measure

BY HAILEY PERSINGER, REPORTER - NORTH COUNTY

THURSDAY, OCTOBER 20, 2011 AT 1:03 P.M.

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POWAY — A fee that was tacked onto the trash bills of Poway residents nearly four years ago has been taken off the books, along with nearly all the revenue it brings in each year to help the city pay for services such as litter pickup and street sweeping.

Poway City Council members voted Tuesday to eliminate the city's stormwater program charge and refund some of the \$5 million it's generated since it went into effect in 2008. The fees cost an average family about \$44 each year. Businesses paid up to \$1,230 annually. The fees amounted to \$1.3 million each year — more than 80 percent of the stormwater program's \$1.6 million annual budget.

The city will refund fees that were paid within the past 12 months and is working on a process to return the money to residents and business owners. According to city code, the statute of limitations for refunds is one year. The remaining three years of overpaid fees will not be returned.

City Attorney Morgan Foley said City Manager Penny Riley asked him to look into the validity of the fee when he began his work with the city in April. He determined that the charge should have been placed on a ballot for Poway voters. That step was left out of the city's approval process.

When the stormwater fee came up for a council vote in November 2007, city staff members told the council that there was not enough opposition from residents for the council to reject it. The city had mailed 36,000 public hearing notices on the fee to property owners and received only 20 letters asking officials to reconsider the proposal. Protests from more than 7,000 water and sewer customers were needed for the council to throw out the proposed fee.

According to a city staff report for Tuesday's meeting, "at that time, staff believed that the majority protest process ... was adequate to approve the fee."

The city began to look into the way the fee was approved after the passage of state Proposition 26, which voters approved last November. It requires a ballot measure to go before voters for most new fees.

Assistant City Manager Tina White said the city has worked as quickly as possible to repeal the charges and noted that Foley's investigation into the fee's validity was one of the first items city officials put on his to-do list.

"It was a hot topic of evolving discussion and legal opinions for months because attorneys were trying to figure out exactly what Proposition 26 did," White said. "When the voters approve it, then the real work begins."

Riley said the stormwater budget will be replaced by money from the city's \$73.5 million

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\$14,977



2012 FUSION
\$17,977

2012 ESCAPE
\$22,777



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\$23,777

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operating budget. A \$2.6 million surplus will help fill the immediate gaps in stormwater funding.

According to the city's website, residents and business owners who are owed refunds will be contacted within the next two months.

hailey.persinger@uniontrib.com; 619-293-2836; Twitter @haileyerin

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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 August 5, 2021, I served the:


- **Joint Test Claim filed by County of Riverside et al., on November 10, 2011, revised on December 2, 2011, April 28, 2017, and corrected on August 5, 2021**

*California Regional Water Quality Control Board, San Diego Region,
Order No. R9-2010-0016, 11-TC-03*

County of Riverside, Riverside County Flood Control and Water Conservation District,
Cities of Murrieta, Temecula, and Wildomar, Co-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 August 5, 2021 at Sacramento, California.



Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
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COMMISSION ON STATE MANDATES

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