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Attachment 1

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter I. Research and Related Programs (Refs & Annos)

33 U.S.C.A. § 1251

§ 1251. Congressional declaration of goals and policy

Currentness

Congressional declaration of goals and policy

(a) Restoration and maintenance of chemical, physical and biological integrity of Nation's waters; national goals for achievement of objective

The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter--

- (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;
- (2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;
- (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;
- (4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;
- (5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State;
- (6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans; and
- (7) it is the national policy that programs for the control of nonpoint sources of pollution be developed and implemented in an expeditious manner so as to enable the goals of this chapter to be met through the control of both point and nonpoint sources of pollution.

(b) Congressional recognition, preservation, and protection of primary responsibilities and rights of States

It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter. It is the policy of Congress that the States manage the construction grant program under this chapter and implement the permit programs under sections 1342 and 1344 of this title. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

(c) Congressional policy toward Presidential activities with foreign countries

It is further the policy of Congress that the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction, and elimination of pollution in their waters and in international waters and for the achievement of goals regarding the elimination or discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws.

(d) Administrator of Environmental Protection Agency to administer chapter

Except as otherwise expressly provided in this chapter, the Administrator of the Environmental Protection Agency (hereinafter in this chapter called "Administrator") shall administer this chapter.

(e) Public participation in development, revision, and enforcement of any regulation, etc.

Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes.

(f) Procedures utilized for implementing chapter

It is the national policy that to the maximum extent possible the procedures utilized for implementing this chapter shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government.

(g) Authority of States over water

It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter. It is the further policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any State. Federal agencies shall co-operate with State and local agencies to develop comprehensive solutions to prevent, reduce and eliminate pollution in concert with programs for managing water resources.

Credits

(June 30, 1948, c. 758, Title I, § 101, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 816, and amended Dec. 27, 1977, Pub.L. 95-217, §§ 5(a), 26(b), 91 Stat. 1567, 1575; Feb. 4, 1987, Pub.L. 100-4, Title III, § 316(b), 101 Stat. 60.)

Editors' Notes

EXECUTIVE ORDERS

EXECUTIVE ORDER NO. 11548

Ex. Ord. No. 11548, July 20, 1970, 35 F.R. 11677, which related to the delegation of Presidential functions, was superseded by Ex. Ord. No. 11735, Aug. 3, 1973, 38 F.R. 21243, set out as a note under section 1321 of this title.

EXECUTIVE ORDER NO. 11742

<Oct. 23, 1973, 38 F.R. 29457>

**Delegation of Functions to Secretary of State Respecting Negotiation
of International Agreements Relating to Enhancement of Environment**

Under and by virtue of the authority vested in me by section 301 of title 3 of the United States Code and as President of the United States, I hereby authorize and empower the Secretary of State, in coordination with the Council on Environmental Quality,

the Environmental Protection Agency, and other appropriate Federal agencies, to perform, without the approval, ratification, or other action of the President, the functions vested in the President by Section 7 of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500; 86 Stat. 898) with respect to international agreements relating to the enhancement of the environment.

RICHARD NIXON.

Notes of Decisions (102)

Current through P.L. 111-382 (excluding P.L. 111-296, 111-309, 111-314, 111-320, 111-350, 111-358, and 111-377) approved 1-4-11

End of Document

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Attachment 2

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter III. Standards and Enforcement (Refs & Annos)

33 U.S.C.A. § 1311

§ 1311. Effluent limitations

Currentness

Effluent limitations

(a) Illegality of pollutant discharges except in compliance with law

Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.

(b) Timetable for achievement of objectives

In order to carry out the objective of this chapter there shall be achieved—

(1)(A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 1314(b) of this title, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 1317 of this title; and

(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 1283 of this title prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 1314(d)(1) of this title; or,

(C) not later than July 1, 1977, 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) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

(2)(A) for pollutants identified in subparagraphs (C), (D), and (F) of this paragraph, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which 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 Administrator pursuant to section 1314(b)(2) of this title, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 1325 of this title), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(2) of this title, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 1317 of this title;

(B) Repealed. Pub.L. 97-117, § 21(b), Dec. 29, 1981, 95 Stat. 1632.

(C) with respect to all toxic pollutants referred to in table 1 of Committee Print Numbered 95-30 of the Committee on Public Works and Transportation of the House of Representatives compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989;

(D) for all toxic pollutants listed under paragraph (1) of subsection (a) of section 1317 of this title which are not referred to in subparagraph (C) of this paragraph compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable, but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989;

(E) as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989, compliance with effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which in the case of pollutants identified pursuant to section 1314(a)(4) of this title shall require application of the best conventional pollutant control technology as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b)(4) of this title; and

(F) for all pollutants (other than those subject to subparagraphs (C), (D), or (E) of this paragraph) compliance with effluent limitations in accordance with subparagraph (A) of this paragraph as expeditiously as practicable but in no case later than 3 years after the date such limitations are established, and in no case later than March 31, 1989.

(3)(A) for effluent limitations under paragraph (1)(A)(i) of this subsection promulgated after January 1, 1982, and requiring a level of control substantially greater or based on fundamentally different control technology than under permits for an industrial category issued before such date, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated under section 1314(b) of this title, and in no case later than March 31, 1989; and

(B) for any effluent limitation in accordance with paragraph (1)(A)(i), (2)(A)(i), or (2)(E) of this subsection established only on the basis of section 1342(a)(1) of this title in a permit issued after February 4, 1987, compliance as expeditiously as practicable but in no case later than three years after the date such limitations are established, and in no case later than March 31, 1989.

(c) Modification of timetable

The Administrator may modify the requirements of subsection (b)(2)(A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

(d) Review and revision of effluent limitations

Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

(e) All point discharge source application of effluent limitations

Effluent limitations established pursuant to this section or section 1312 of this title shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this chapter.

(f) Illegality of discharge of radiological, chemical, or biological warfare agents, high-level radioactive waste, or medical waste

Notwithstanding any other provisions of this chapter it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters.

(g) Modifications for certain nonconventional pollutants

(1) General authority

The Administrator, with the concurrence of the State, may modify the requirements of subsection (b)(2)(A) of this section with respect to the discharge from any point source of ammonia, chlorine, color, iron, and total phenols (4AAP) (when determined by the Administrator to be a pollutant covered by subsection (b)(2)(F) of this section) and any other pollutant which the Administrator lists under paragraph (4) of this subsection.

(2) Requirements for granting modifications

A modification under this subsection shall be granted only upon a showing by the owner or operator of a point source satisfactory to the Administrator that--

(A) such modified requirements will result at a minimum in compliance with the requirements of subsection (b)(1)(A) or (C) of this section, whichever is applicable;

(B) such modified requirements will not result in any additional requirements on any other point or nonpoint source; and

(C) such modification will not interfere with the attainment or maintenance of that water quality which shall assure protection of public water supplies, and the protection and propagation of a balanced population of shellfish, fish, and wildlife, and allow recreational activities, in and on the water and such modification will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity or teratogenicity), or synergistic propensities.

(3) Limitation on authority to apply for subsection (c) modification

If an owner or operator of a point source applies for a modification under this subsection with respect to the discharge of any pollutant, such owner or operator shall be eligible to apply for modification under subsection (c) of this section with respect to such pollutant only during the same time period as he is eligible to apply for a modification under this subsection.

(4) Procedures for listing additional pollutants

(A) General authority

Upon petition of any person, the Administrator may add any pollutant to the list of pollutants for which modification under this section is authorized (except for pollutants identified pursuant to section 1314(a)(4) of this title, toxic pollutants subject to section 1317(a) of this title, and the thermal component of discharges) in accordance with the provisions of this paragraph.

(B) Requirements for listing

(i) Sufficient information

The person petitioning for listing of an additional pollutant under this subsection shall submit to the Administrator sufficient information to make the determinations required by this subparagraph.

(ii) Toxic criteria determination

The Administrator shall determine whether or not the pollutant meets the criteria for listing as a toxic pollutant under section 1317(a) of this title.

(iii) Listing as toxic pollutant

If the Administrator determines that the pollutant meets the criteria for listing as a toxic pollutant under section 1317(a) of this title, the Administrator shall list the pollutant as a toxic pollutant under section 1317(a) of this title.

(iv) Nonconventional criteria determination

If the Administrator determines that the pollutant does not meet the criteria for listing as a toxic pollutant under such section and determines that adequate test methods and sufficient data are available to make the determinations required by paragraph (2) of this subsection with respect to the pollutant, the Administrator shall add the pollutant to the list of pollutants specified in paragraph (1) of this subsection for which modifications are authorized under this subsection.

(C) Requirements for filing of petitions

A petition for listing of a pollutant under this paragraph--

- (i) must be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title;
- (ii) may be filed before promulgation of such guideline; and
- (iii) may be filed with an application for a modification under paragraph (1) with respect to the discharge of such pollutant.

(D) Deadline for approval of petition

A decision to add a pollutant to the list of pollutants for which modifications under this subsection are authorized must be made within 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title.

(E) Burden of proof

The burden of proof for making the determinations under subparagraph (B) shall be on the petitioner.

(5) Removal of pollutants

The Administrator may remove any pollutant from the list of pollutants for which modifications are authorized under this subsection if the Administrator determines that adequate test methods and sufficient data are no longer available for determining whether or not modifications may be granted with respect to such pollutant under paragraph (2) of this subsection.

(h) Modification of secondary treatment requirements

The Administrator, with the concurrence of the State, may issue a permit under section 1342 of this title which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters, if the applicant demonstrates to the satisfaction of the Administrator that--

- (1) there is an applicable water quality standard specific to the pollutant for which the modification is requested, which has been identified under section 1314(a)(6) of this title;
- (2) the discharge of pollutants in accordance with such modified requirements will not interfere, alone or in combination with pollutants from other sources, with the attainment or maintenance of that water quality which assures protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on the water;

- (3) the applicant has established a system for monitoring the impact of such discharge on a representative sample of aquatic biota, to the extent practicable, and the scope of such monitoring is limited to include only those scientific investigations which are necessary to study the effects of the proposed discharge;
- (4) such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- (5) all applicable pretreatment requirements for sources introducing waste into such treatment works will be enforced;
- (6) in the case of any treatment works serving a population of 50,000 or more, with respect to any toxic pollutant introduced into such works by an industrial discharger for which pollutant there is no applicable pretreatment requirement in effect, sources introducing waste into such works are in compliance with all applicable pretreatment requirements, the applicant will enforce such requirements, and the applicant has in effect a pretreatment program which, in combination with the treatment of discharges from such works, removes the same amount of such pollutant as would be removed if such works were to apply secondary treatment to discharges and if such works had no pretreatment program with respect to such pollutant;
- (7) to the extent practicable, the applicant has established a schedule of activities designed to eliminate the entrance of toxic pollutants from nonindustrial sources into such treatment works;
- (8) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- (9) the applicant at the time such modification becomes effective will be discharging effluent which has received at least primary or equivalent treatment and which meets the criteria established under section 1314(a)(1) of this title after initial mixing in the waters surrounding or adjacent to the point at which such effluent is discharged.

For the purposes of this subsection the phrase "the discharge of any pollutant into marine waters" refers to a discharge into deep waters of the territorial sea or the waters of the contiguous zone, or into saline estuarine waters where there is strong tidal movement and other hydrological and geological characteristics which the Administrator determines necessary to allow compliance with paragraph (2) of this subsection, and section 1251(a)(2) of this title. For the purposes of paragraph (9), "primary or equivalent treatment" means treatment by screening, sedimentation, and skimming adequate to remove at least 30 percent of the biological oxygen demanding material and of the suspended solids in the treatment works influent, and disinfection, where appropriate. A municipality which applies secondary treatment shall be eligible to receive a permit pursuant to this subsection which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from any treatment works owned by such municipality into marine waters. No permit issued under this subsection shall authorize the discharge of sewage sludge into marine waters. In order for a permit to be issued under this subsection for the discharge of a pollutant into marine waters, such marine waters must exhibit characteristics assuring that water providing dilution does not contain significant amounts of previously discharged effluent from such treatment works. No permit issued under this subsection shall authorize the discharge of any pollutant into saline estuarine waters which at the time of application do not support a balanced indigenous population of shellfish, fish and wildlife, or allow recreation in and on the waters or which exhibit ambient water quality below applicable water quality standards adopted for the protection of public water supplies, shellfish, fish and wildlife or recreational activities or such other standards necessary to assure support and protection of such uses. The prohibition contained in the preceding sentence shall apply without regard to the presence or absence of a causal relationship between such characteristics and the applicant's current or proposed discharge. Notwithstanding any other provisions of this subsection, no permit may be issued under this subsection for discharge of a pollutant into the New York Bight Apex consisting of the ocean waters of the Atlantic Ocean westward of 73 degrees 30 minutes west longitude and northward of 40 degrees 10 minutes north latitude.

(i) Municipal time extensions

- (1) Where construction is required in order for a planned or existing publicly owned treatment works to achieve limitations under subsection (b)(1)(B) or (b)(1)(C) of this section, but (A) construction cannot be completed within the time required in such subsection, or (B) the United States has failed to make financial assistance under this chapter available in time to achieve such

limitations by the time specified in such subsection, the owner or operator of such treatment works may request the Administrator (or if appropriate the State) to issue a permit pursuant to section 1342 of this title or to modify a permit issued pursuant to that section to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after February 4, 1987. The Administrator (or if appropriate the State) may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the publicly owned treatment works based on the earliest date by which such financial assistance will be available from the United States and construction can be completed, but in no event later than July 1, 1988, and shall contain such other terms and conditions, including those necessary to carry out subsections (b) through (g) of section 1281 of this title, section 1317 of this title, and such interim effluent limitations applicable to that treatment works as the Administrator determines are necessary to carry out the provisions of this chapter.

(2)(A) Where a point source (other than a publicly owned treatment works) will not achieve the requirements of subsections (b)(1)(A) and (b)(1)(C) of this section and--

(i) if a permit issued prior to July 1, 1977, to such point source is based upon a discharge into a publicly owned treatment works; or

(ii) if such point source (other than a publicly owned treatment works) had before July 1, 1977, a contract (enforceable against such point source) to discharge into a publicly owned treatment works; or

(iii) if either an application made before July 1, 1977, for a construction grant under this chapter for a publicly owned treatment works, or engineering or architectural plans or working drawings made before July 1, 1977, for a publicly owned treatment works, show that such point source was to discharge into such publicly owned treatment works, and such publicly owned treatment works is presently unable to accept such discharge without construction, and in the case of a discharge to an existing publicly owned treatment works, such treatment works has an extension pursuant to paragraph (1) of this subsection, the owner or operator of such point source may request the Administrator (or if appropriate the State) to issue or modify such a permit pursuant to such section 1342 of this title to extend such time for compliance. Any such request shall be filed with the Administrator (or if appropriate the State) within 180 days after December 27, 1977, or the filing of a request by the appropriate publicly owned treatment works under paragraph (1) of this subsection, whichever is later. If the Administrator (or if appropriate the State) finds that the owner or operator of such point source has acted in good faith, he may grant such request and issue or modify such a permit, which shall contain a schedule of compliance for the point source to achieve the requirements of subsections (b)(1)(A) and (C) of this section and shall contain such other terms and conditions, including pretreatment and interim effluent limitations and water conservation requirements applicable to that point source, as the Administrator determines are necessary to carry out the provisions of this chapter.

(B) No time modification granted by the Administrator (or if appropriate the State) pursuant to paragraph (2)(A) of this subsection shall extend beyond the earliest date practicable for compliance or beyond the date of any extension granted to the appropriate publicly owned treatment works pursuant to paragraph (1) of this subsection, but in no event shall it extend beyond July 1, 1988; and no such time modification shall be granted unless (i) the publicly owned treatment works will be in operation and available to the point source before July 1, 1988, and will meet the requirements of subsections (b)(1)(B) and (C) of this section after receiving the discharge from that point source; and (ii) the point source and the publicly owned treatment works have entered into an enforceable contract requiring the point source to discharge into the publicly owned treatment works, the owner or operator of such point source to pay the costs required under section 1284 of this title, and the publicly owned treatment works to accept the discharge from the point source; and (iii) the permit for such point source requires that point source to meet all requirements under section 1317(a) and (b) of this title during the period of such time modification.

(j) Modification procedures

(1) Any application filed under this section for a modification of the provisions of--

(A) subsection (b)(1)(B) of this section under subsection (h) of this section shall be filed not later than¹ the 365th day which begins after December 29, 1981, except that a publicly owned treatment works which prior to December 31, 1982, had a

contractual arrangement to use a portion of the capacity of an ocean outfall operated by another publicly owned treatment works which has applied for or received modification under subsection (h) of this section, may apply for a modification of subsection (h) of this section in its own right not later than 30 days after February 4, 1987, and except as provided in paragraph (5);

(B) subsection (b)(2)(A) of this section as it applies to pollutants identified in subsection (b)(2)(F) of this section shall be filed not later than 270 days after the date of promulgation of an applicable effluent guideline under section 1314 of this title or not later than 270 days after December 27, 1977, whichever is later.

(2) Subject to paragraph (3) of this section, any application for a modification filed under subsection (g) of this section shall not operate to stay any requirement under this chapter, unless in the judgment of the Administrator such a stay or the modification sought will not result in the discharge of pollutants in quantities which may reasonably be anticipated to pose an unacceptable risk to human health or the environment because of bioaccumulation, persistency in the environment, acute toxicity, chronic toxicity (including carcinogenicity, mutagenicity, or teratogenicity), or synergistic propensities, and that there is a substantial likelihood that the applicant will succeed on the merits of such application. In the case of an application filed under subsection (g) of this section, the Administrator may condition any stay granted under this paragraph on requiring the filing of a bond or other appropriate security to assure timely compliance with the requirements from which a modification is sought.

(3) Compliance requirements under subsection (g)

(A) Effect of filing

An application for a modification under subsection (g) of this section and a petition for listing of a pollutant as a pollutant for which modifications are authorized under such subsection shall not stay the requirement that the person seeking such modification or listing comply with effluent limitations under this chapter for all pollutants not the subject of such application or petition.

(B) Effect of disapproval

Disapproval of an application for a modification under subsection (g) of this section shall not stay the requirement that the person seeking such modification comply with all applicable effluent limitations under this chapter.

(4) Deadline for subsection (g) decision

An application for a modification with respect to a pollutant filed under subsection (g) of this section must be approved or disapproved not later than 365 days after the date of such filing; except that in any case in which a petition for listing such pollutant as a pollutant for which modifications are authorized under such subsection is approved, such application must be approved or disapproved not later than 365 days after the date of approval of such petition.

(5) Extension of application deadline

(A) In general

In the 180-day period beginning on October 31, 1994, the city of San Diego, California, may apply for a modification pursuant to subsection (h) of this section of the requirements of subsection (b)(1)(B) of this section with respect to biological oxygen demand and total suspended solids in the effluent discharged into marine waters.

(B) Application

An application under this paragraph shall include a commitment by the applicant to implement a waste water reclamation program that, at a minimum, will--

(i) achieve a system capacity of 45,000,000 gallons of reclaimed waste water per day by January 1, 2010; and

(ii) result in a reduction in the quantity of suspended solids discharged by the applicant into the marine environment during the period of the modification.

(C) Additional conditions

The Administrator may not grant a modification pursuant to an application submitted under this paragraph unless the Administrator determines that such modification will result in removal of not less than 58 percent of the biological oxygen demand (on an annual average) and not less than 80 percent of total suspended solids (on a monthly average) in the discharge to which the application applies.

(D) Preliminary decision deadline

The Administrator shall announce a preliminary decision on an application submitted under this paragraph not later than 1 year after the date the application is submitted.

(k) Innovative technology

In the case of any facility subject to a permit under section 1342 of this title which proposes to comply with the requirements of subsection (b)(2)(A) or (b)(2)(E) of this section by replacing existing production capacity with an innovative production process which will result in an effluent reduction significantly greater than that required by the limitation otherwise applicable to such facility and moves toward the national goal of eliminating the discharge of all pollutants, or with the installation of an innovative control technique that has a substantial likelihood for enabling the facility to comply with the applicable effluent limitation by achieving a significantly greater effluent reduction than that required by the applicable effluent limitation and moves toward the national goal of eliminating the discharge of all pollutants, or by achieving the required reduction with an innovative system that has the potential for significantly lower costs than the systems which have been determined by the Administrator to be economically achievable, the Administrator (or the State with an approved program under section 1342 of this title, in consultation with the Administrator) may establish a date for compliance under subsection (b)(2)(A) or (b)(2)(E) of this section no later than two years after the date for compliance with such effluent limitation which would otherwise be applicable under such subsection, if it is also determined that such innovative system has the potential for industrywide application.

(l) Toxic pollutants

Other than as provided in subsection (n) of this section, the Administrator may not modify any requirement of this section as it applies to any specific pollutant which is on the toxic pollutant list under section 1317(a)(1) of this title.

(m) Modification of effluent limitation requirements for point sources

(1) The Administrator, with the concurrence of the State, may issue a permit under section 1342 of this title which modifies the requirements of subsections (b)(1)(A) and (b)(2)(E) of this section, and of section 1343 of this title, with respect to effluent limitations to the extent such limitations relate to biochemical oxygen demand and pH from discharges by an industrial discharger in such State into deep waters of the territorial seas, if the applicant demonstrates and the Administrator finds that--

(A) the facility for which modification is sought is covered at the time of the enactment of this subsection by National Pollutant Discharge Elimination System permit number CA0005894 or CA0005282;

(B) the energy and environmental costs of meeting such requirements of subsections (b)(1)(A) and (b)(2)(E) of this section and section 1343 of this title exceed by an unreasonable amount the benefits to be obtained, including the objectives of this chapter;

(C) the applicant has established a system for monitoring the impact of such discharges on a representative sample of aquatic biota;

- (D) such modified requirements will not result in any additional requirements on any other point or nonpoint source;
- (E) there will be no new or substantially increased discharges from the point source of the pollutant to which the modification applies above that volume of discharge specified in the permit;
- (F) the discharge is into waters where there is strong tidal movement and other hydrological and geological characteristics which are necessary to allow compliance with this subsection and section 1251(a)(2) of this title;
- (G) the applicant accepts as a condition to the permit a contractual² obligation to use funds in the amount required (but not less than \$250,000 per year for ten years) for research and development of water pollution control technology, including but not limited to closed cycle technology;
- (H) the facts and circumstances present a unique situation which, if relief is granted, will not establish a precedent or the relaxation of the requirements of this chapter applicable to similarly situated discharges; and
- (I) no owner or operator of a facility comparable to that of the applicant situated in the United States has demonstrated that it would be put at a competitive disadvantage to the applicant (or the parent company or any subsidiary thereof) as a result of the issuance of a permit under this subsection.
- (2) The effluent limitations established under a permit issued under paragraph (1) shall be sufficient to implement the applicable State water quality standards, to assure the protection of public water supplies and protection and propagation of a balanced, indigenous population of shellfish, fish, fauna, wildlife, and other aquatic organisms, and to allow recreational activities in and on the water. In setting such limitations, the Administrator shall take into account any seasonal variations and the need for an adequate margin of safety, considering the lack of essential knowledge concerning the relationship between effluent limitations and water quality and the lack of essential knowledge of the effects of discharges on beneficial uses of the receiving waters.
- (3) A permit under this subsection may be issued for a period not to exceed five years, and such a permit may be renewed for one additional period not to exceed five years upon a demonstration by the applicant and a finding by the Administrator at the time of application for any such renewal that the provisions of this subsection are met.
- (4) The Administrator may terminate a permit issued under this subsection if the Administrator determines that there has been a decline in ambient water quality of the receiving waters during the period of the permit even if a direct cause and effect relationship cannot be shown: *Provided*, That if the effluent from a source with a permit issued under this subsection is contributing to a decline in ambient water quality of the receiving waters, the Administrator shall terminate such permit.

(n) Fundamentally different factors

(1) General rule

The Administrator, with the concurrence of the State, may establish an alternative requirement under subsection (b)(2) of this section or section 1317(b) of this title for a facility that modifies the requirements of national effluent limitation guidelines or categorical pretreatment standards that would otherwise be applicable to such facility, if the owner or operator of such facility demonstrates to the satisfaction of the Administrator that--

- (A) the facility is fundamentally different with respect to the factors (other than cost) specified in section 1314(b) or 1314(g) of this title and considered by the Administrator in establishing such national effluent limitation guidelines or categorical pretreatment standards;
- (B) the application--

(i) is based solely on information and supporting data submitted to the Administrator during the rulemaking for establishment of the applicable national effluent limitation guidelines or categorical pretreatment standard specifically raising the factors that are fundamentally different for such facility; or

(ii) is based on information and supporting data referred to in clause (i) and information and supporting data the applicant did not have a reasonable opportunity to submit during such rulemaking;

(C) the alternative requirement is no less stringent than justified by the fundamental difference; and

(D) the alternative requirement will not result in a non-water quality environmental impact which is markedly more adverse than the impact considered by the Administrator in establishing such national effluent limitation guideline or categorical pretreatment standard.

(2) Time limit for applications

An application for an alternative requirement which modifies the requirements of an effluent limitation or pretreatment standard under this subsection must be submitted to the Administrator within 180 days after the date on which such limitation or standard is established or revised, as the case may be.

(3) Time limit for decision

The Administrator shall approve or deny by final agency action an application submitted under this subsection within 180 days after the date such application is filed with the Administrator.

(4) Submission of information

The Administrator may allow an applicant under this subsection to submit information and supporting data until the earlier of the date the application is approved or denied or the last day that the Administrator has to approve or deny such application.

(5) Treatment of pending applications

For the purposes of this subsection, an application for an alternative requirement based on fundamentally different factors which is pending on February 4, 1987, shall be treated as having been submitted to the Administrator on the 180th day following February 4, 1987. The applicant may amend the application to take into account the provisions of this subsection.

(6) Effect of submission of application

An application for an alternative requirement under this subsection shall not stay the applicant's obligation to comply with the effluent limitation guideline or categorical pretreatment standard which is the subject of the application.

(7) Effect of denial

If an application for an alternative requirement which modifies the requirements of an effluent limitation or pretreatment standard under this subsection is denied by the Administrator, the applicant must comply with such limitation or standard as established or revised, as the case may be.

(8) Reports

By January 1, 1997, and January 1 of every odd-numbered year thereafter, the Administrator shall submit to the Committee on Environment and Public Works of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the status of applications for alternative requirements which modify the requirements of effluent limitations under section 1311 or 1314 of this title or any national categorical pretreatment standard under section 1317(b) of this title filed before, on, or after February 4, 1987.

(o) Application fees

The Administrator shall prescribe and collect from each applicant fees reflecting the reasonable administrative costs incurred in reviewing and processing applications for modifications submitted to the Administrator pursuant to subsections (c), (g), (i), (k), (m), and (n) of this section, section 1314(d)(4) of this title, and section 1326(a) of this title. All amounts collected by the Administrator under this subsection shall be deposited into a special fund of the Treasury entitled "Water Permits and Related Services" which shall thereafter be available for appropriation to carry out activities of the Environmental Protection Agency for which such fees were collected.

(p) Modified permit for coal remining operations

(1) In general

Subject to paragraphs (2) through (4) of this subsection, the Administrator, or the State in any case which the State has an approved permit program under section 1342(b) of this title, may issue a permit under section 1342 of this title which modifies the requirements of subsection (b)(2)(A) of this section with respect to the pH level of any pre-existing discharge, and with respect to pre-existing discharges of iron and manganese from the remined area of any coal remining operation or with respect to the pH level or level of iron or manganese in any pre-existing discharge affected by the remining operation. Such modified requirements shall apply the best available technology economically achievable on a case-by-case basis, using best professional judgment, to set specific numerical effluent limitations in each permit.

(2) Limitations

The Administrator or the State may only issue a permit pursuant to paragraph (1) if the applicant demonstrates to the satisfaction of the Administrator or the State, as the case may be, that the coal remining operation will result in the potential for improved water quality from the remining operation but in no event shall such a permit allow the pH level of any discharge, and in no event shall such a permit allow the discharges of iron and manganese, to exceed the levels being discharged from the remined area before the coal remining operation begins. No discharge from, or affected by, the remining operation shall exceed State water quality standards established under section 1313 of this title.

(3) Definitions

For purposes of this subsection--

(A) Coal remining operation

The term "coal remining operation" means a coal mining operation which begins after February 4, 1987 at a site on which coal mining was conducted before August 3, 1977.

(B) Remined area

The term "remined area" means only that area of any coal remining operation on which coal mining was conducted before August 3, 1977.

(C) Pre-existing discharge

The term "pre-existing discharge" means any discharge at the time of permit application under this subsection.

(4) Applicability of strip mining laws

Nothing in this subsection shall affect the application of the Surface Mining Control and Reclamation Act of 1977 [30 U.S.C.A. § 1201 et seq.] to any coal remining operation, including the application of such Act to suspended solids.

Credits

(June 30, 1948, c. 758, Title III, § 301, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 844, and amended Dec. 27, 1977, Pub.L. 95-217, §§ 42-47, 53(c), 91 Stat. 1582-1586, 1590; Dec. 29, 1981, Pub.L. 97-117, §§ 21, 22(a)-(d), 95 Stat. 1631, 1632; Jan. 8, 1983, Pub.L. 97-440, 96 Stat. 2289; Feb. 4, 1987, Pub.L. 100-4, Title III, §§ 301(a) to (e), 302(a) to (d), 303(a), (b)(1), (c) to (f), 304(a), 305, 306(a), (b), 307, 101 Stat. 29-37; Nov. 18, 1988, Pub.L. 100-688, Title III, § 3202(b), 102 Stat. 4154; Oct. 31, 1994, Pub.L. 103-431, § 2, 108 Stat. 4396; Dec. 21, 1995, Pub.L. 104-66, Title II, § 2021(b), 109 Stat. 727.)

- 1 So in original. Probably should be "than".
- 2 So in original. Probably should be "contractual".

Notes of Decisions (253)

Current through P.L. 111-382 (excluding P.L. 111-296, 111-309, 111-314, 111-320, 111-350, 111-358, and 111-377) approved 1-4-11

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Attachment 3

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter III. Standards and Enforcement (Refs & Annos)

33 U.S.C.A. § 1313

§ 1313. Water quality standards and implementation plans

Effective: October 10, 2000

Currentness

Water quality standards and implementation plans

(a) Existing water quality standards

(1) In order to carry out the purpose of this chapter, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is a waiting approval by, the Administrator pursuant to this Act as in effect immediately prior to October 18, 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972. If the Administrator makes such a determination he shall, within three months after October 18, 1972, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after the date of such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(2) Any State which, before October 18, 1972, has adopted, pursuant to its own law, water quality standards applicable to intrastate waters shall submit such standards to the Administrator within thirty days after October 18, 1972. Each such standard shall remain in effect, in the same manner and to the same extent as any other water quality standard established under this chapter unless the Administrator determines that such standard is inconsistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972. If the Administrator makes such a determination he shall not later than the one hundred and twentieth day after the date of submission of such standards, notify the State and specify the changes needed to meet such requirements. If such changes are not adopted by the State within ninety days after such notification, the Administrator shall promulgate such changes in accordance with subsection (b) of this section.

(3)(A) Any State which prior to October 18, 1972, has not adopted pursuant to its own laws water quality standards applicable to intrastate waters shall, not later than one hundred and eighty days after October 18, 1972, adopt and submit such standards to the Administrator.

(B) If the Administrator determines that any such standards are consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall approve such standards.

(C) If the Administrator determines that any such standards are not consistent with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, he shall, not later than the ninetieth day after the date of submission of such standards, notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standards pursuant to subsection (b) of this section.

(b) Proposed regulations

(1) The Administrator shall promptly prepare and publish proposed regulations setting forth water quality standards for a State in accordance with the applicable requirements of this Act as in effect immediately prior to October 18, 1972, if--

(A) the State fails to submit water quality standards within the times prescribed in subsection (a) of this section.

(B) a water quality standard submitted by such State under subsection (a) of this section is determined by the Administrator not to be consistent with the applicable requirements of subsection (a) of this section.

(2) The Administrator shall promulgate any water quality standard published in a proposed regulation not later than one hundred and ninety days after the date he publishes any such proposed standard, unless prior to such promulgation, such State has adopted a water quality standard which the Administrator determines to be in accordance with subsection (a) of this section.

(c) Review; revised standards; publication

(1) The Governor of a State or the State water pollution control agency of such State shall from time to time (but at least once each three year period beginning with October 18, 1972) hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards. Results of such review shall be made available to the Administrator.

(2)(A) Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator. Such revised or new water quality standard shall consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses. Such standards shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter. Such standards shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and also taking into consideration their use and value for navigation.

(B) Whenever a State reviews water quality standards pursuant to paragraph (1) of this subsection, or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria for all toxic pollutants listed pursuant to section 1317(a) (1) of this title for which criteria have been published under section 1314(a) of this title, the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Such criteria shall be specific numerical criteria for such toxic pollutants. Where such numerical criteria are not available, whenever a State reviews water quality standards pursuant to paragraph (1), or revises or adopts new standards pursuant to this paragraph, such State shall adopt criteria based on biological monitoring or assessment methods consistent with information published pursuant to section 1314(a)(8) of this title. Nothing in this section shall be construed to limit or delay the use of effluent limitations or other permit conditions based on or involving biological monitoring or assessment methods or previously adopted numerical criteria.

(3) If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this chapter, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this chapter, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection.

(4) The Administrator shall promptly prepare and publish proposed regulations setting forth a revised or new water quality standard for the navigable waters involved--

(A) if a revised or new water quality standard submitted by such State under paragraph (3) of this subsection for such waters is determined by the Administrator not to be consistent with the applicable requirements of this chapter, or

(B) in any case where the Administrator determines that a revised or new standard is necessary to meet the requirements of this chapter.

The Administrator shall promulgate any revised or new standard under this paragraph not later than ninety days after he publishes such proposed standards, unless prior to such promulgation, such State has adopted a revised or new water quality standard which the Administrator determines to be in accordance with this chapter.

(d) Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision

(1)(A) Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

(B) Each State shall identify those waters or parts thereof within its boundaries for which controls on thermal discharges under section 1311 of this title are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

(C) Each State shall establish for the waters identified in paragraph (1)(A) of this subsection, and in accordance with the priority ranking, the total maximum daily load, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation. Such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality.

(D) Each State shall estimate for the waters identified in paragraph (1)(B) of this subsection the total maximum daily thermal load required to assure protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal water quality criteria for such protection and propagation in the identified waters or parts thereof.

(2) Each State shall submit to the Administrator from time to time, with the first such submission not later than one hundred and eighty days after the date of publication of the first identification of pollutants under section 1314(a)(2)(D) of this title, for his approval the waters identified and the loads established under paragraphs (1)(A), (1)(B), (1)(C), and (1)(D) of this subsection. The Administrator shall either approve or disapprove such identification and load not later than thirty days after the date of submission. If the Administrator approves such identification and load, such State shall incorporate them into its current plan under subsection (e) of this section. If the Administrator disapproves such identification and load, he shall not later than thirty days after the date of such disapproval identify such waters in such State and establish such loads for such waters as he determines necessary to implement the water quality standards applicable to such waters and upon such identification and establishment the State shall incorporate them into its current plan under subsection (e) of this section.

(3) For the specific purpose of developing information, each State shall identify all waters within its boundaries which it has not identified under paragraph (1)(A) and (1)(B) of this subsection and estimate for such waters the total maximum daily load with seasonal variations and margins of safety, for those pollutants which the Administrator identifies under section 1314(a)(2) of this title as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife.

(4) Limitations on revision of certain effluent limitations

(A) Standard not attained

For waters identified under paragraph (1)(A) where the applicable water quality standard has not yet been attained, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section may be revised only if (i) the cumulative effect of all such revised effluent limitations based on such total maximum daily load or waste load

allocation will assure the attainment of such water quality standard, or (ii) the designated use which is not being attained is removed in accordance with regulations established under this section.

(B) Standard attained

For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

(e) Continuing planning process

(1) Each State shall have a continuing planning process approved under paragraph (2) of this subsection which is consistent with this chapter.

(2) Each State shall submit not later than 120 days after October 18, 1972, to the Administrator for his approval a proposed continuing planning process which is consistent with this chapter. Not later than thirty days after the date of submission of such a process the Administrator shall either approve or disapprove such process. The Administrator shall from time to time review each State's approved planning process for the purpose of insuring that such planning process is at all times consistent with this chapter. The Administrator shall not approve any State permit program under subchapter IV of this chapter for any State which does not have an approved continuing planning process under this section.

(3) The Administrator shall approve any continuing planning process submitted to him under this section which will result in plans for all navigable waters within such State, which include, but are not limited to, the following:

(A) effluent limitations and schedules of compliance at least as stringent as those required by section 1311(b)(1), section 1311(b)(2), section 1316, and section 1317 of this title, and at least as stringent as any requirements contained in any applicable water quality standard in effect under authority of this section;

(B) the incorporation of all elements of any applicable area-wide waste management plans under section 1288 of this title, and applicable basin plans under section 1289 of this title;

(C) total maximum daily load for pollutants in accordance with subsection (d) of this section;

(D) procedures for revision;

(E) adequate authority for intergovernmental cooperation;

(F) adequate implementation, including schedules of compliance, for revised or new water quality standards, under subsection (c) of this section;

(G) controls over the disposition of all residual waste from any water treatment processing;

(H) an inventory and ranking, in order of priority, of needs for construction of waste treatment works required to meet the applicable requirements of sections 1311 and 1312 of this title.

(f) Earlier compliance

Nothing in this section shall be construed to affect any effluent limitation, or schedule of compliance required by any State to be implemented prior to the dates set forth in sections 1311(b)(1) and 1311(b)(2) of this title nor to preclude any State from requiring compliance with any effluent limitation or schedule of compliance at dates earlier than such dates.

(g) Heat standards

Water quality standards relating to heat shall be consistent with the requirements of section 1326 of this title.

(h) Thermal water quality standards

For the purposes of this chapter the term "water quality standards" includes thermal water quality standards.

(i) Coastal recreation water quality criteria

(1) Adoption by States

(A) Initial criteria and standards

Not later than 42 months after October 10, 2000, each State having coastal recreation waters shall adopt and submit to the Administrator water quality criteria and standards for the coastal recreation waters of the State for those pathogens and pathogen indicators for which the Administrator has published criteria under section 1314(a) of this title.

(B) New or revised criteria and standards

Not later than 36 months after the date of publication by the Administrator of new or revised water quality criteria under section 1314(a)(9) of this title, each State having coastal recreation waters shall adopt and submit to the Administrator new or revised water quality standards for the coastal recreation waters of the State for all pathogens and pathogen indicators to which the new or revised water quality criteria are applicable.

(2) Failure of States to adopt

(A) In general

If a State fails to adopt water quality criteria and standards in accordance with paragraph (1)(A) that are as protective of human health as the criteria for pathogens and pathogen indicators for coastal recreation waters published by the Administrator, the Administrator shall promptly propose regulations for the State setting forth revised or new water quality standards for pathogens and pathogen indicators described in paragraph (1)(A) for coastal recreation waters of the State.

(B) Exception

If the Administrator proposes regulations for a State described in subparagraph (A) under subsection (c)(4)(B) of this section, the Administrator shall publish any revised or new standard under this subsection not later than 42 months after October 10, 2000.

(3) Applicability

Except as expressly provided by this subsection, the requirements and procedures of subsection (c) of this section apply to this subsection, including the requirement in subsection (c)(2)(A) of this section that the criteria protect public health and welfare.

Credits

(June 30, 1948, c. 758, Title III, § 303, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 846, and amended Feb. 4, 1987, Pub.L. 100-4, Title III, § 308(d), Title IV, § 404(b), 101 Stat. 39, 68; Oct. 10, 2000, Pub.L. 106-284, § 2, 114 Stat. 870.)

Notes of Decisions (104)

Current through P.L. 111-382 (excluding P.L. 111-296, 111-309, 111-314, 111-320, 111-350, 111-358, and 111-377) approved 1-4-11

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Attachment 4

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter IV. Permits and Licenses (Refs & Annos)

33 U.S.C.A. § 1342

§ 1342. National pollutant discharge elimination system

Effective: July 29, 2008

Currentness

National pollutant discharge elimination system

(a) Permits for discharge of pollutants

(1) Except as provided in sections 1328 and 1344 of this title, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 1311(a) of this title, upon condition that such discharge will meet either (A) all applicable requirements under sections 1311, 1312, 1316, 1317, 1318, and 1343 of this title, or (B) prior to the taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this chapter.

(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

(4) All permits for discharges into the navigable waters issued pursuant to section 407 of this title shall be deemed to be permits issued under this subchapter, and permits issued under this subchapter shall be deemed to be permits issued under section 407 of this title, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this chapter.

(5) No permit for a discharge into the navigable waters shall be issued under section 407 of this title after October 18, 1972. Each application for a permit under section 407 of this title, pending on October 18, 1972, shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this chapter to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on October 18, 1972, and ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 1314(i)(2) of this title, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this chapter. No such permit shall issue if the Administrator objects to such issuance.

(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 such submitted program unless he determines that adequate authority does not exist:

(I) 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.

(c) Suspension of Federal program upon submission of State program; withdrawal of approval of State program; return of State program to Administrator

(1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those discharges subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 1314(i)(2) of this title. If the Administrator so determines, he shall notify the State of any revisions or modifications necessary to conform to such requirements or guidelines.

(2) Any State permit program under this section shall at all times be in accordance with this section and guidelines promulgated pursuant to section 1314(i)(2) of this title.

(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

(4) Limitations on partial permit program returns and withdrawals.

A State may return to the Administrator administration,¹ and the Administrator may withdraw under paragraph (3) of this subsection approval, of--

(A) a State partial permit program approved under subsection (n)(3) of this section only if the entire permit program being administered by the State department or agency at the time is returned or withdrawn; and

(B) a State partial permit program approved under subsection (n)(4) of this section only if an entire phased component of the permit program being administered by the State at the time is returned or withdrawn.

(d) Notification of Administrator

(1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b)(5) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the issuance of such permit as being outside the guidelines and requirements of this chapter. Whenever the Administrator objects to the issuance of a permit under this paragraph such written objection shall contain a statement of the reasons for such objection and the effluent limitations and conditions which such permit would include if it were issued by the Administrator.

(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

(4) In any case where, after December 27, 1977, the Administrator, pursuant to paragraph (2) of this subsection, objects to the issuance of a permit, on request of the State, a public hearing shall be held by the Administrator on such objection. If the State does not resubmit such permit revised to meet such objection within 30 days after completion of the hearing, or, if no hearing is requested within 90 days after the date of such objection, the Administrator may issue the permit pursuant to subsection (a) of this section for such source in accordance with the guidelines and requirements of this chapter.

(e) Waiver of notification requirement

In accordance with guidelines promulgated pursuant to subsection (i)(2) of section 1314 of this title, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any category (including any class, type, or size within such category) of point sources within the State submitting such program.

(f) Point source categories

The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

(g) Other regulations for safe transportation, handling, carriage, storage, and stowage of pollutants

Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

(h) Violation of permit conditions; restriction or prohibition upon introduction of pollutant by source not previously utilizing treatment works

In the event any condition of a permit for discharges from a treatment works (as defined in section 1292 of this title) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved or where the Administrator determines pursuant to section 1319(a) of this title that a State with an approved program has not commenced appropriate enforcement action with respect to such permit, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated.

(i) Federal enforcement not limited

Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 1319 of this title.

(j) Public information

A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction.

(k) Compliance with permits

Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 1319 and 1365 of this title, with sections 1311, 1312, 1316, 1317, and 1343 of this title, except any standard imposed under section 1317 of this title for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 1311, 1316, or 1342 of this title, or (2) section 407 of this title, unless the

Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on October 18, 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date which source is not subject to section 407 of this title, the discharge by such source shall not be a violation of this chapter if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

(j) Limitation on permit requirement

(1) Agricultural return flows

The Administrator shall not require a permit under this section for discharges composed entirely of return flows from irrigated agriculture, nor shall the Administrator directly or indirectly, require any State to require such a permit.

(2) Stormwater runoff from oil, gas, and mining operations

The Administrator shall not require a permit under this section, nor shall the Administrator directly or indirectly require any State to require a permit, for discharges of stormwater runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, 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 do not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.

(m) Additional pretreatment of conventional pollutants not required

To the extent a treatment works (as defined in section 1292 of this title) which is publicly owned is not meeting the requirements of a permit issued under this section for such treatment works as a result of inadequate design or operation of such treatment works, the Administrator, in issuing a permit under this section, shall not require pretreatment by a person introducing conventional pollutants identified pursuant to section 1314(a)(4) of this title into such treatment works other than pretreatment required to assure compliance with pretreatment standards under subsection (b)(8) of this section and section 1317(b)(1) of this title. Nothing in this subsection shall affect the Administrator's authority under sections 1317 and 1319 of this title, affect State and local authority under sections 1317(b)(4) and 1370 of this title, relieve such treatment works of its obligations to meet requirements established under this chapter, or otherwise preclude such works from pursuing whatever feasible options are available to meet its responsibility to comply with its permit under this section.

(n) Partial permit program

(1) State submission

The Governor of a State may submit under subsection (b) of this section a permit program for a portion of the discharges into the navigable waters in such State.

(2) Minimum coverage

A partial permit program under this subsection shall cover, at a minimum, administration of a major category of the discharges into the navigable waters of the State or a major component of the permit program required by subsection (b) of this section.

(3) Approval of major category partial permit programs

The Administrator may approve a partial permit program covering administration of a major category of discharges under this subsection if--

(A) such program represents a complete permit program and covers all of the discharges under the jurisdiction of a department or agency of the State; and

(B) the Administrator determines that the partial program represents a significant and identifiable part of the State program required by subsection (b) of this section.

(4) Approval of major component partial permit programs

The Administrator may approve under this subsection a partial and phased permit program covering administration of a major component (including discharge categories) of a State permit program required by subsection (b) of this section if--

(A) the Administrator determines that the partial program represents a significant and identifiable part of the State program required by subsection (b) of this section; and

(B) the State submits, and the Administrator approves, a plan for the State to assume administration by phases of the remainder of the State program required by subsection (b) of this section by a specified date not more than 5 years after submission of the partial program under this subsection and agrees to make all reasonable efforts to assume such administration by such date.

(o) Anti-backsliding

(1) General prohibition

In the case of effluent limitations established on the basis of subsection (a)(1)(B) of this section, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 1314(b) of this title 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. In the case of effluent limitations established on the basis of section 1311(b)(1)(C) or section 1313(d) or (e) of this title, a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with section 1313(d)(4) of this title.

(2) Exceptions

A permit with respect to which paragraph (1) 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)(i) 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

(ii) the Administrator determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under subsection (a)(1)(B) of this section;

(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 1311(c), 1311(g), 1311(h), 1311(i), 1311(k), 1311(n), or 1326(a) of this title; 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).

Subparagraph (B) shall not apply to any revised waste load allocations or any alternative grounds for translating water quality standards into effluent limitations, except where the cumulative effect of such revised allocations results in a decrease in the amount of pollutants discharged into the concerned waters, and such revised allocations are not the result of a discharger eliminating or substantially reducing its discharge of pollutants due to complying with the requirements of this chapter or for reasons otherwise unrelated to water quality.

(3) Limitations

In no event may a permit with respect to which paragraph (1) 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, reissued, 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 1313 of this title applicable to such waters.

(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.

(4) Permit application requirements**(A) Industrial and large municipal discharges**

Not later than 2 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraphs (2)(B) and (2)(C). Applications for permits for such discharges shall be filed no later than 3 years after February 4, 1987. Not later than 4 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(B) Other municipal discharges

Not later than 4 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraph (2)(D). Applications for permits for such discharges shall be filed no later than 5 years after February 4, 1987. Not later than 6 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(5) Studies

The Administrator, in consultation with the States, shall conduct a study for the purposes of--

(A) identifying those stormwater discharges or classes of stormwater discharges for which permits are not required pursuant to paragraphs (1) and (2) of this subsection;

(B) determining, to the maximum extent practicable, the nature and extent of pollutants in such discharges; and

(C) establishing procedures and methods to control stormwater discharges to the extent necessary to mitigate impacts on water quality.

Not later than October 1, 1988, the Administrator shall submit to Congress a report on the results of the study described in subparagraphs (A) and (B). Not later than October 1, 1989, the Administrator shall submit to Congress a report on the results of the study described in subparagraph (C).

(6) Regulations

Not later than October 1, 1993, the Administrator, in consultation with State and local officials, shall issue regulations (based on the results of the studies conducted under paragraph (5)) which designate stormwater discharges, other than those discharges described in paragraph (2), to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources. The program shall, at a minimum, (A) establish priorities, (B) establish requirements for State stormwater management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

(q) Combined sewer overflows**(1) Requirement for permits, orders, and decrees**

Each permit, order, or decree issued pursuant to this chapter after December 21, 2000 for a discharge from a municipal combined storm and sanitary sewer shall conform to the Combined Sewer Overflow Control Policy signed by the Administrator on April 11, 1994 (in this subsection referred to as the "CSO control policy").

(2) Water quality and designated use review guidance

Not later than July 31, 2001, and after providing notice and opportunity for public comment, the Administrator shall issue guidance to facilitate the conduct of water quality and designated use reviews for municipal combined sewer overflow receiving waters.

(3) Report

Not later than September 1, 2001, the Administrator shall transmit to Congress a report on the progress made by the Environmental Protection Agency, States, and municipalities in implementing and enforcing the CSO control policy.

(r) Discharges incidental to the normal operation of recreational vessels

No permit shall be required under this chapter by the Administrator (or a State, in the case of a permit program approved under subsection (b)) for the discharge of any graywater, bilge water, cooling water, weather deck runoff, oil water separator effluent, or effluent from properly functioning marine engines, or any other discharge that is incidental to the normal operation of a vessel, if the discharge is from a recreational vessel.

Credits

(June 30, 1948, c. 758, Title IV, § 402, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 880, and amended Dec. 27, 1977, Pub.L. 95-217, §§ 33(c), 50, 54(c)(1), 65, 66, 91 Stat. 1577, 1588, 1591, 1599, 1600; Feb. 4, 1987, Pub.L. 100-4, Title IV, §§ 401 to 404(a), (c), formerly (d), 405, 101 Stat. 65 to 67, 69; Oct. 31, 1992, Pub.L. 102-580, Title III, § 364, 106 Stat. 4862; Dec. 21, 1995, Pub.L. 104-66, Title II, § 2021(e)(2), 109 Stat. 727; Dec. 21, 2000, Pub.L. 106-554, § 1(a)(4) [Div. B, Title I, § 112(a)], 114 Stat. 2763, 2763A-224; July 29, 2008, Pub.L. 110-288, § 2, 122 Stat. 2650.)

1 So in original.

Notes of Decisions (194)

Current through P.L. 111-382 (excluding P.L. 111-296, 111-309, 111-314, 111-320, 111-350, 111-358, and 111-377) approved 1-4-11

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Attachment 5

United States Code Annotated

Title 33. Navigation and Navigable Waters (Refs & Annos)

Chapter 26. Water Pollution Prevention and Control (Refs & Annos)

Subchapter V. General Provisions

33 U.S.C.A. § 1362

§ 1362. Definitions

Effective: July 29, 2008

Currentness

Definitions

Except as otherwise specifically provided, when used in this chapter:

(1) The term "State water pollution control agency" means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

(2) The term "interstate agency" means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

(3) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands.

(4) The term "municipality" means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 1288 of this title.

(5) The term "person" means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

(6) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) "sewage from vessels or a discharge incidental to the normal operation of a vessel of the Armed Forces" within the meaning of section 1322 of this title; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

(8) The term "territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

(9) The term "contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

(10) The term "ocean" means any portion of the high seas beyond the contiguous zone.

(11) The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

(12) The term "discharge of a pollutant" and the term "discharge of pollutants" each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

(13) The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(14) The term "point source" means 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. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

(15) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

(16) The term "discharge" when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

(17) The term "schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

(18) The term "industrial user" means those industries identified in the Standard Industrial Classification Manual, Bureau of the Budget, 1967, as amended and supplemented, under the category of "Division D--Manufacturing" and such other classes of significant waste producers as, by regulation, the Administrator deems appropriate.

(19) The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

(20) The term "medical waste" means isolation wastes; infectious agents; human blood and blood products; pathological wastes; sharps; body parts; contaminated bedding; surgical wastes and potentially contaminated laboratory wastes; dialysis wastes; and such additional medical items as the Administrator shall prescribe by regulation.

(21) Coastal recreation waters

(A) In general

The term "coastal recreation waters" means--

(i) the Great Lakes; and

(ii) marine coastal waters (including coastal estuaries) that are designated under section 1313(c) of this title by a State for use for swimming, bathing, surfing, or similar water contact activities.

(B) Exclusions

The term "coastal recreation waters" does not include--

- (i) inland waters; or
- (ii) waters upstream of the mouth of a river or stream having an unimpaired natural connection with the open sea.

(22) Floatable material

(A) In general

The term "floatable material" means any foreign matter that may float or remain suspended in the water column.

(B) Inclusions

The term "floatable material" includes--

- (i) plastic;
- (ii) aluminum cans;
- (iii) wood products;
- (iv) bottles; and
- (v) paper products.

(23) Pathogen indicator

The term "pathogen indicator" means a substance that indicates the potential for human infectious disease.

(24) Oil and gas exploration and production

The term "oil and gas exploration, production, processing, or treatment operations or transmission facilities" means all field activities or operations associated with 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.

(25) Recreational vessel

(A) In general

The term "recreational vessel" means any vessel that is--

- (i) manufactured or used primarily for pleasure; or
- (ii) leased, rented, or chartered to a person for the pleasure of that person.

(B) Exclusion

The term "recreational vessel" does not include a vessel that is subject to Coast Guard inspection and that--

(i) is engaged in commercial use; or

(ii) carries paying passengers.

Credits

(June 30, 1948, c. 758, Title V, § 502, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 886, and amended Dec. 27, 1977, Pub.L. 95-217, § 33(b), 91 Stat. 1577; Feb. 4, 1987, Pub.L. 100-4, Title V, §§ 502(a), 503, 101 Stat. 75; Nov. 18, 1988, Pub.L. 100-688, Title III, § 3202(a), 102 Stat. 4154; Feb. 10, 1996, Pub.L. 104-106, Div. A, Title III, § 325(c)(3), 110 Stat. 259; Oct. 10, 2000, Pub.L. 106-284, § 5, 114 Stat. 875; Aug. 8, 2005, Pub.L. 109-58, Title III, § 323, 119 Stat. 694; July 29, 2008, Pub.L. 110-288, § 3, 122 Stat. 2650.)

Notes of Decisions (187)

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Attachment 6

Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 122. EPA Administered Permit Programs: the National Pollutant Discharge Elimination System (Refs & Annos)

Subpart A. Definitions and General Program Requirements

40 C.F.R. § 122.2

§ 122.2 Definitions.

Currentness

The following definitions apply to Parts 122, 123, and 124. Terms not defined in this section have the meaning given by CWA. When a defined term appears in a definition, the defined term is sometimes placed in quotation marks as an aid to readers.

Administrator means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

Animal feeding operation is defined at § 122.23.

Applicable standards and limitations means all State, interstate, and federal standards and limitations to which a "discharge," a "sewage sludge use or disposal practice," or a related activity is subject under the CWA, including "effluent limitations," water quality standards, standards of performance, toxic effluent standards or prohibitions, "best management practices," pretreatment standards, and "standards for sewage sludge use or disposal" under sections 301, 302, 303, 304, 306, 307, 308, 403 and 405 of CWA.

Application means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in "approved States," including any approved modifications or revisions.

Approved program or approved State means a State or interstate program which has been approved or authorized by EPA under Part 123.

Aquaculture project is defined at § 122.25.

Average monthly discharge limitation means 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.

Average weekly discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.

Best management practices ("BMPs") means 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.

BMPs means "best management practices."

Bypass is defined at § 122.41(m).

Class I sludge management facility means any POTW identified under 40 CFR 403.8(a) as being required to have an approved pretreatment program (including such POTWs located in a State that has elected to assume local program responsibilities pursuant to 40 CFR 403.10(e)) and any other treatment works treating domestic sewage classified as a Class I sludge management facility by the Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sludge use or disposal practices to adversely affect public health and the environment.

Concentrated animal feeding operation is defined at § 122.23.

Concentrated aquatic animal feeding operation is defined at § 122.24.

Contiguous zone means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

Continuous discharge means a "discharge" which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

CWA means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended by Pub.L. 95-217, Pub.L. 95-576, Pub.L. 96-483 and Pub.L. 97-117, 33 U.S.C. 1251 et seq.

CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Daily discharge means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Direct discharge means the "discharge of a pollutant."

Director means the Regional Administrator or the State Director, as the context requires, or an authorized representative. When there is no "approved State program," and there is an EPA administrative program, "Director" means the Regional Administrator. When there is an approved State program, "Director" normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. (For example, when EPA has issued an NPDES permit prior to the approval of a State program, EPA may retain jurisdiction over that permit after program approval, see § 123.1.) In such cases, the term "Director" means the Regional Administrator and not the State Director.

Discharge when used without qualification means the "discharge of a pollutant."

Discharge of a pollutant means:

- (a) Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or
- (b) Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition 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, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

Discharge Monitoring Report (“DMR”) means the EPA uniform national form, including any subsequent additions, revisions, or modifications for the reporting of self-monitoring results by permittees. DMRs must be used by “approved States” as well as by EPA. EPA will supply DMRs to any approved State upon request. The EPA national forms may be modified to substitute the State Agency name, address, logo, and other similar information, as appropriate, in place of EPA's.

DMR means “Discharge Monitoring Report.”

Draft permit means a document prepared under § 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a “permit.” A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of “draft permits.” A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5, is not a “draft permit.” A “proposed permit” is not a “draft permit.”

Effluent limitation means 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,” the waters of the “contiguous zone,” or the ocean.

Effluent limitations guidelines means a regulation published by the Administrator under section 304(b) of CWA to adopt or revise “effluent limitations.”

Environmental Protection Agency (“EPA”) means the United States Environmental Protection Agency.

EPA means the United States “Environmental Protection Agency.”

Facility or activity means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

Federal Indian reservation means all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation.

General permit means an NPDES “permit” issued under § 122.28 authorizing a category of discharges under the CWA within a geographical area.

Hazardous substance means any substance designated under 40 CFR Part 116 pursuant to section 311 of CWA.

Indian country means:

- (1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
- (2) All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
- (3) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

Indian Tribe means any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.

Indirect discharger means a nondomestic discharger introducing “pollutants” to a “publicly owned treatment works.”

Individual control strategy is defined at 40 CFR 123.46(c).

Interstate agency means an agency of two or more States established by or under an agreement or compact approved by the Congress, or any other agency of two or more States having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator under the CWA and regulations.

Major facility means any NPDES "facility or activity" classified as such by the Regional Administrator, or, in the case of "approved State programs," the Regional Administrator in conjunction with the State Director.

Maximum daily discharge limitation means the highest allowable "daily discharge."

Municipal separate storm sewer system is defined at § 122.26 (b)(4) and (b)(7).

Municipality means a city, town, borough, county, parish, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of CWA.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of CWA. The term includes an "approved program."

New discharger means any building, structure, facility, or installation:

- (a) From which there is or may be a "discharge of pollutants;"
- (b) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;
- (c) Which is not a "new source;" and
- (d) Which has never received a finally effective NPDES permit for discharges at that "site."

This definition includes an "indirect discharger" which commences discharging into "waters of the United States" after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig or a coastal oil and gas developmental drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a "site" for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas developmental drilling rig that commences the discharge of pollutants after August 13, 1979, at a "site" under EPA's permitting jurisdiction for which it is not covered by an individual or general permit and which is located in an area determined by the Regional Administrator in the issuance of a final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Regional Administrator shall consider the factors specified in 40 CFR 125.112(a)(1) through (10).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a "new discharger" only for the duration of its discharge in an area of biological concern.

New source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced:

- (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or
- (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

NPDES means "National Pollutant Discharge Elimination System."

Owner or operator means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

Permit means an authorization, license, or equivalent control document issued by EPA or an "approved State" to implement the requirements of this part and Parts 123 and 124. "Permit" includes an NPDES "general permit" (§ 122.28). Permit does not include any permit which has not yet been the subject of final agency action, such as a "draft permit" or a "proposed permit."

Person means an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof.

Point source means 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, 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. (See § 122.3).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean:

(a) Sewage from vessels; or

(b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

NOTE: Radioactive materials covered by the Atomic Energy Act are those encompassed in its definition of source, byproduct, or special nuclear materials. Examples of materials not covered include radium and accelerator-produced isotopes. See *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1 (1976).

POTW is defined at § 403.3 of this chapter.

Primary industry category means any industry category listed in the NRDC settlement agreement (*Natural Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in Appendix A of Part 122.

Privately owned treatment works means any device or system which is (a) used to treat wastes from any facility whose operator is not the operator of the treatment works and (b) not a "POTW."

Process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

Proposed permit means a State NPDES "permit" prepared after the close of the public comment period (and, when applicable, any public hearing and administrative appeals) which is sent to EPA for review before final issuance by the State. A "proposed permit" is not a "draft permit."

Publicly owned treatment works is defined at 40 CFR 403.3.

Recommencing discharger means a source which recommences discharge after terminating operations.

Regional Administrator means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

Schedule of compliance means a schedule of remedial measures included in a "permit", including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the CWA and regulations.

Secondary industry category means any industry category which is not a "primary industry category."

Secretary means the Secretary of the Army, acting through the Chief of Engineers.

Septage means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

Sewage from vessels means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels and regulated under section 312 of CWA, except that with respect to commercial vessels on the Great Lakes this term includes graywater. For the purposes of this definition, "graywater" means galley, bath, and shower water.

Sewage Sludge means any solid, semi-solid, or liquid residue removed during the treatment of municipal waste water or domestic sewage. Sewage sludge includes, but is not limited to, solids removed during primary, secondary, or advanced waste water treatment, scum, septage, portable toilet pumpings, type III marine sanitation device pumpings (33 CFR Part 159), and sewage sludge products. Sewage sludge does not include grit or screenings, or ash generated during the incineration of sewage sludge.

Sewage sludge use or disposal practice means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

Silvicultural point source is defined at § 122.27.

Site means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

Sludge-only facility means any "treatment works treating domestic sewage" whose methods of sewage sludge use or disposal are subject to regulations promulgated pursuant to section 405(d) of the CWA and is required to obtain a permit under § 122.1(b)(2).

Standards for sewage sludge use or disposal means the regulations promulgated pursuant to section 405(d) of the CWA which govern minimum requirements for sludge quality, management practices, and monitoring and reporting applicable to sewage sludge or the use or disposal of sewage sludge by any person.

State means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, the Trust Territory of the Pacific Islands, or an Indian Tribe as defined in these regulations which meets the requirements of § 123.31 of this chapter.

State Director means the chief administrative officer of any State or interstate agency operating an "approved program," or the delegated representative of the State Director. If responsibility is divided among two or more State or interstate agencies, "State Director" means the chief administrative officer of the State or interstate agency authorized to perform the particular procedure or function to which reference is made.

State/EPA Agreement means an agreement between the Regional Administrator and the State which coordinates EPA and State activities, responsibilities and programs including those under CWA programs.

Storm water is defined at § 122.26(b)(13).

Storm water discharge associated with industrial activity is defined at § 122.26(b)(14).

Total dissolved solids means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

Toxic pollutant means any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA.

Treatment works treating domestic sewage means a POTW or any other sewage sludge or waste water treatment devices or systems, regardless of ownership (including federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, "domestic sewage" includes waste and waste water from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in 40 CFR Part 503 as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and the environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503.

TWTDS means "treatment works treating domestic sewage."

Upset is defined at § 122.41(n).

Variance means any mechanism or provision under section 301 or 316 of CWA or under 40 CFR Part 125, or in the applicable "effluent limitations guidelines" which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of CWA. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on sections 301(c), 301(g), 301(h), 301(i), or 316(a) of CWA.

Waters of the United States or waters of the U.S. means:

(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 sea; and

(g) "Wetlands" adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR § 423.11(m) which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. [See Note 1 of this section.] 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 jurisdiction remains with EPA.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Whole effluent toxicity means the aggregate toxic effect of an effluent measured directly by a toxicity test.

Note: At 45 FR 48620, July 21, 1980, the Environmental Protection Agency suspended until further notice in § 122.2, the last sentence, beginning "This exclusion applies ___" in the definition of "Waters of the United States." This revision continues that suspension.¹

(Authority: Clean Water Act (33 U.S.C. 1251 et seq.), Safe Drinking Water Act (42 U.S.C. 300f et seq.), Clean Air Act (42 U.S.C. 7401 et seq.), Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.))

Credits

[48 FR 39619, Sept. 1, 1983; 50 FR 6940, 6941, Feb. 19, 1985; 54 FR 254, Jan. 4, 1989; 54 FR 18781, May 2, 1989; 54 FR 23895, June 2, 1989; 58 FR 45037, Aug. 25, 1993; 58 FR 67980, Dec. 22, 1993; 64 FR 42462, Aug. 4, 1999; 64 FR 43426, Aug. 10, 1999; 65 FR 30905, May 15, 2000]

SOURCE: 45 FR 33418, May 19, 1980, as amended at 48 FR 14153, Apr. 1, 1983, unless otherwise noted.

AUTHORITY: The Clean Water Act, 33 U.S.C. 1251 et seq.

Notes of Decisions (91)

Current through February 24, 2011; 76 FR 10265

Footnotes

1 Editorial note: The words "This revision" refer to the document published at 48 FR 14153, Apr. 1, 1983.

End of Document

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Attachment 7

Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 122. EPA Administered Permit Programs: the National Pollutant Discharge Elimination System (Refs & Annos)

Subpart B. Permit Application and Special NPDES Program Requirements

40 C.F.R. § 122.26

§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).

Effective: June 12, 2006

Currentness

<For statute(s) affecting validity, see: The Clean Water Act, 33 USCA § 1251 et seq.>

(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 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 section) include those facilities designated under the provisions of paragraph (a)(1)(v) of this section. The following categories of facilities are considered to be engaging in "industrial activity" for purposes of paragraph (b)(14):

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) in paragraph (b)(14) of this section);

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released,

or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;

(v) Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

(vii) Steam electric power generating facilities, including coal handling sites;

(viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (b)(14) (i)-(vii) or (ix)-(xi) of this section are associated with industrial activity;

(ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;

(x) Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a 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, 1200 Pennsylvania Ave., NW., Washington, DC 20460. A copy is also available for inspection at the U.S. EPA Water Docket, 1200 Pennsylvania Ave., NW., Washington, DC 20460, or the Office of the Federal Register, 800 N. Capitol Street N.W. Suite 700, Washington, DC. 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.
- 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).)

Potential Designation: Optional Evaluation and Designation by the NPDES Permitting Authority or EPA Regional Administrator.

- 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).)

Potential Waiver: Waiver from Requirements as Determined by the NPDES Permitting Authority.

- 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).)

(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:

(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 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(l)(1)(A)(i), section 304(l)(1)(A)(ii), or section 304(l)(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 include, 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 § 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 requirements 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)(1) 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 expenditures, 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 November 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.

(i) 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 information, including the possibility of fine and imprisonment for knowing violations.”

Credits

[54 FR 255, Jan. 4, 1989; 55 FR 48063, Nov. 16, 1990; 56 FR 12100, March 21, 1991; 56 FR 56554, Nov. 5, 1991; 57 FR 11412, April 2, 1992; 57 FR 60447, Dec. 18, 1992; 60 FR 17956, April 7, 1995; 60 FR 40235, Aug. 7, 1995; 64 FR 68838, Dec. 8, 1999; 65 FR 30907, May 15, 2000; 68 FR 11329, March 10, 2003; 70 FR 11563, March 9, 2005; 71 FR 33639, June 12, 2006]
SOURCE: 45 FR 33418, May 19, 1980, as amended at 48 FR 14153, Apr. 1, 1983, unless otherwise noted.

AUTHORITY: The Clean Water Act, 33 U.S.C. 1251 et seq.

Notes of Decisions (61)

Current through February 24, 2011; 76 FR 10265

End of Document

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Attachment 8

Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 122. EPA Administered Permit Programs: the National Pollutant Discharge Elimination System (Refs & Annos)

Subpart C. Permit Conditions

40 C.F.R. § 122.44

§ 122.44 Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs, see § 123.25).

Effective: April 11, 2007

Currentness

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 paragraphs (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 (1)(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 copermitttee, 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 POWs 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.

Credits

[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, 23896, June 2, 1989; 57 FR 11413, April 2, 1992; 57 FR 33049, July 24, 1992; 58 FR 18016, April 7, 1993; 60 FR 15386, March 23, 1995; 64 FR 42469, Aug. 4, 1999; 64 FR 43426, Aug. 10, 1999; 64 FR 68847, Dec. 8, 1999; 65 FR 30908, May 15, 2000; 65 FR 43661, July 13, 2000; 66 FR 53048, Oct. 18, 2001; 66 FR 65337, Dec. 18, 2001; 68 FR 13608, March 19, 2003; 69 FR 41682, July 9, 2004; 70 FR 60191, Oct. 14, 2005; 71 FR 35040, June 16, 2006; 72 FR 11212, March 12, 2007]

SOURCE: 45 FR 33418, May 19, 1980, as amended at 48 FR 14153, Apr. 1, 1983, unless otherwise noted.

AUTHORITY: The Clean Water Act, 33 U.S.C. 1251 et seq.

Notes of Decisions (139)

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Attachment 9

Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 130. Water Quality Planning and Management (Refs & Annos)

40 C.F.R. § 130.2

§ 130.2 Definitions.

Currentness

- (a) The Act. The Clean Water Act, as amended, 33 U.S.C. 1251 et seq.
- (b) Indian Tribe. Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian reservation.
- (c) Pollution. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.
- (d) Water quality standards (WQS). 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. Water quality standards are to protect the public health or welfare, enhance the quality of water and serve the purposes of the Act.
- (e) Load or Loading. An amount of matter or thermal energy that is introduced into a receiving water; to introduce matter or thermal energy into a receiving water. Loading may be either man-caused (pollutant loading) or natural (natural background loading).
- (f) Loading capacity. The greatest amount of loading that a water can receive without violating water quality standards.
- (g) Load allocation (LA). The portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from reasonably accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished.
- (h) Wasteload allocation (WLA). The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.
- (i) Total maximum daily load (TMDL). The sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs.
- (j) Water quality limited segment. Any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of the technology-based effluent limitations required by sections 301(b) and 306 of the Act.
- (k) Water quality management (WQM) plan. A State or areawide waste treatment management plan developed and updated in accordance with the provisions of sections 205(j), 208 and 303 of the Act and this regulation.

(l) Areawide agency. An agency designated under section 208 of the Act, which has responsibilities for WQM planning within a specified area of a State.

(m) Best Management Practice (BMP). Methods, measures or practices selected by an agency to meet its nonpoint source control needs. BMPs include but are not limited to structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

(n) Designated management agency (DMA). An agency identified by a WQM plan and designated by the Governor to implement specific control recommendations.

Credits

[54 FR 14359, April 11, 1989; 65 FR 43662, July 13, 2000; 68 FR 13608, March 19, 2003]

SOURCE: 50 FR 1779, Jan. 11, 1985; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003, unless otherwise noted.

AUTHORITY: 33 U.S.C. 1251 et seq.

Notes of Decisions (1)

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Attachment 10

Code of Federal Regulations

Title 40. Protection of Environment

Chapter I. Environmental Protection Agency (Refs & Annos)

Subchapter D. Water Programs

Part 130. Water Quality Planning and Management (Refs & Annos)

40 C.F.R. § 130.7

§ 130.7 Total maximum daily loads (TMDL) and individual water quality-based effluent limitations.

Currentness

(a) General. The process for identifying water quality limited segments still requiring wasteload allocations, load allocations and total maximum daily loads (WLAs/LAs and TMDLs), setting priorities for developing these loads; establishing these loads for segments identified, including water quality monitoring, modeling, data analysis, calculation methods, and list of pollutants to be regulated; submitting the State's list of segments identified, priority ranking, and loads established (WLAs/LAs/TMDLs) to EPA for approval; incorporating the approved loads into the State's WQM plans and NPDES permits; and involving the public, affected dischargers, designated area-wide agencies, and local governments in this process shall be clearly described in the State Continuing Planning Process (CPP).

(b) Identification and priority setting for water quality-limited segments still requiring TMDLs.

(1) Each State shall identify those water quality-limited segments still requiring TMDLs within its boundaries for which:

(i) Technology-based effluent limitations required by sections 301(b), 306, 307, or other sections of the Act;

(ii) More stringent effluent limitations (including prohibitions) required by either State or local authority preserved by section 510 of the Act, or Federal authority (law, regulation, or treaty); and

(iii) Other pollution control requirements (e.g., best management practices) required by local, State, or Federal authority are not stringent enough to implement any water quality standards (WQS) applicable to such waters.

(2) Each State shall also identify on the same list developed under paragraph (b)(1) of this section those water quality-limited segments still requiring TMDLs or parts thereof within its boundaries for which controls on thermal discharges under section 301 or State or local requirements are not stringent enough to assure protection and propagation of a balanced indigenous population of shellfish, fish and wildlife.

(3) For the purposes of listing waters under § 130.7(b), the term "water quality standard applicable to such waters" and "applicable water quality standards" refer to those water quality standards established under section 303 of the Act, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements.

(4) The list required under §§ 130.7(b)(1) and 130.7(b)(2) of this section shall include a priority ranking for all listed water quality-limited segments still requiring TMDLs, taking into account the severity of the pollution and the uses to be made of such waters and shall identify the pollutants causing or expected to cause violations of the applicable water quality standards. The priority ranking shall specifically include the identification of waters targeted for TMDL development in the next two years.

(5) Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list required by §§ 130.7(b)(1) and 130.7(b)(2). At a minimum "all existing and readily available water quality-related data and information" includes but is not limited to all of the existing and readily available data and information about the following categories of waters:

- (i) Waters identified by the State in its most recent section 305(b) report as “partially meeting” or “not meeting” designated uses or as “threatened”;
- (ii) Waters for which dilution calculations or predictive models indicate nonattainment of applicable water quality standards;
- (iii) Waters for which water quality problems have been reported by local, state, or federal agencies; members of the public; or academic institutions. These organizations and groups should be actively solicited for research they may be conducting or reporting. For example, university researchers, the United States Department of Agriculture, the National Oceanic and Atmospheric Administration, the United States Geological Survey, and the United States Fish and Wildlife Service are good sources of field data; and
- (iv) Waters identified by the State as impaired or threatened in a nonpoint assessment submitted to EPA under section 319 of the CWA or in any updates of the assessment.
- (6) Each State shall provide documentation to the Regional Administrator to support the State's determination to list or not to list its waters as required by §§ 130.7(b)(1) and 130.7(b)(2). This documentation shall be submitted to the Regional Administrator together with the list required by §§ 130.7(b)(1) and 130.7(b)(2) and shall include at a minimum:
- (i) A description of the methodology used to develop the list; and
- (ii) A description of the data and information used to identify waters, including a description of the data and information used by the State as required by § 130.7(b)(5); and
- (iii) A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in § 130.7(b)(5); and
- (iv) Any other reasonable information requested by the Regional Administrator. Upon request by the Regional Administrator, each State must demonstrate good cause for not including a water or waters on the list. Good cause includes, but is not limited to, more recent or accurate data; more sophisticated water quality modeling; flaws in the original analysis that led to the water being listed in the categories in § 130.7(b)(5); or changes in conditions, e.g., new control equipment, or elimination of discharges.
- (c) Development of TMDLs and individual water quality based effluent limitations.
- (1) Each State shall establish TMDLs for the water quality limited segments identified in paragraph (b)(1) of this section, and in accordance with the priority ranking. For pollutants other than heat, TMDLs shall be established at levels necessary to attain and maintain the applicable narrative and numerical WQS with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality. Determinations of TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.
- (i) TMDLs may be established using a pollutant-by-pollutant or biomonitoring approach. In many cases both techniques may be needed. Site-specific information should be used wherever possible.
- (ii) TMDLs shall be established for all pollutants preventing or expected to prevent attainment of water quality standards as identified pursuant to paragraph (b)(1) of this section. Calculations to establish TMDLs shall be subject to public review as defined in the State CPP.
- (2) Each State shall estimate for the water quality limited segments still requiring TMDLs identified in paragraph (b)(2) of this section, the total maximum daily thermal load which cannot be exceeded in order to assure protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife. Such estimates shall take into account the normal water temperatures, flow rates, seasonal variations, existing sources of heat input, and the dissipative capacity of the identified waters or parts thereof. Such estimates shall include a calculation of the maximum heat input that can be made into each such part and shall include a margin of safety which takes into account any lack of knowledge concerning the development of thermal

water quality criteria for protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in the identified waters or parts thereof.

(d) Submission and EPA approval.

(1) Each State shall submit biennially to the Regional Administrator beginning in 1992 the list of waters, pollutants causing impairment, and the priority ranking including waters targeted for TMDL development within the next two years as required under paragraph (b) of this section. For the 1992 biennial submission, these lists are due no later than October 22, 1992. Thereafter, each State shall submit to EPA lists required under paragraph (b) of this section on April 1 of every even-numbered year. For the year 2000 submission, a State must submit a list required under paragraph (b) of this section only if a court order or consent decree, or commitment in a settlement agreement dated prior to January 1, 2000, expressly requires EPA to take action related to that State's year 2000 list. For the year 2002 submission, a State must submit a list required under paragraph (b) of this section by October 1, 2002, unless a court order, consent decree or commitment in a settlement agreement expressly requires EPA to take an action related to that State's 2002 list prior to October 1, 2002, in which case, the State must submit a list by April 1, 2002. The list of waters may be submitted as part of the State's biennial water quality report required by § 130.8 of this part and section 305(b) of the CWA or submitted under separate cover. All TMDLs established under paragraph (c) for water quality limited segments shall continue to be submitted to EPA for review and approval. Schedules for submission of TMDLs shall be determined by the Regional Administrator and the State.

(2) The Regional Administrator shall either approve or disapprove such listing and loadings not later than 30 days after the date of submission. The Regional Administrator shall approve a list developed under § 130.7(b) that is submitted after the effective date of this rule only if it meets the requirements of § 130.7(b). If the Regional Administrator approves such listing and loadings, the State shall incorporate them into its current WQM plan. If the Regional Administrator disapproves such listing and loadings, he shall, not later than 30 days after the date of such disapproval, identify such waters in such State and establish such loads for such waters as determined necessary to implement applicable WQS. The Regional Administrator shall promptly issue a public notice seeking comment on such listing and loadings. After considering public comment and making any revisions he deems appropriate, the Regional Administrator shall transmit the listing and loads to the State, which shall incorporate them into its current WQM plan.

(e) For the specific purpose of developing information and as resources allow, each State shall identify all segments within its boundaries which it has not identified under paragraph (b) of this section and estimate for such waters the TMDLs with seasonal variations and margins of safety, for those pollutants which the Regional Administrator identifies under section 304(a)(2) as suitable for such calculation and for thermal discharges, at a level that would assure protection and propagation of a balanced indigenous population of fish, shellfish and wildlife. However, there is no requirement for such loads to be submitted to EPA for approval, and establishing TMDLs for those waters identified in paragraph (b) of this section shall be given higher priority.

Credits

[57 FR 33049, July 24, 1992; 65 FR 17170, March 31, 2000; 65 FR 43663, July 13, 2000; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003]

SOURCE: 50 FR 1779, Jan. 11, 1985; 66 FR 53048, Oct. 18, 2001; 68 FR 13608, March 19, 2003, unless otherwise noted.

AUTHORITY: 33 U.S.C. 1251 et seq.

Notes of Decisions (5)

Current through February 24, 2011; 76 FR 10265

End of Document

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Attachment 11

55 FR 47990-01
RULES and REGULATIONS
ENVIRONMENTAL PROTECTION AGENCY
40 CFR Parts 122, 123, and 124
[FRL-3834-7]
RIN 2040-AA79

National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges

Friday, November 16, 1990

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Today's final rule begins to implement section 402(p) of the Clean Water Act (CWA) (added by section 405 of the Water Quality Act of 1987 (WQA)), which requires the Environmental Protection Agency (EPA) to establish regulations setting forth National Pollutant Discharge Elimination System (NPDES) permit application requirements for: storm water discharges associated with industrial activity; discharges from a municipal separate storm sewer system serving a population of 250,000 or more; and discharges from municipal separate storm sewer systems serving a population of 100,000 or more, but less than 250,000.

Today's rule also clarifies the requirements of section 401 of the WQA, which amended CWA section 402(1)(2) to provide that NPDES permits shall not be required for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, composed entirely of flows which are from 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 do not come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of such operations. This rule sets forth NPDES permit application requirements addressing storm water discharges associated with industrial activity and storm water discharges from large and medium municipal separate storm sewer systems.

DATES: This final rule becomes effective December 17, 1990. In accordance with 40 CFR 23.2, this rule shall be considered final for purposes of judicial review on November 30, 1990, at 1 p.m. eastern daylight time. The public record is located at EPA Headquarters, EPA Public Information Reference Unit, room 2402, 401 M Street SW., Washington DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For further information on the rule contact: Thomas J. Seaton, Kevin Weiss, or Michael Mitchell Office of Water Enforcement and Permits (EN-336), United States Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 475-9518.

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SUPPLEMENTARY INFORMATION:

I. Background and Water Quality Concerns

The 1972 amendments to the Federal Water Pollution Control Act (referred to as the Clean Water Act or CWA), prohibit the discharge of any pollutant to navigable waters from a point source unless the discharge is authorized by an NPDES permit. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. This program emphasis developed for a number of reasons. At the onset of the program in 1972, many sources of industrial process wastewater and municipal sewage were not adequately controlled and represented pressing environmental problems. In addition, sewage outfalls and industrial process discharges were easily identified as responsible for poor, often drastically degraded, water quality conditions. However, as pollution control measures were initially developed for these discharges, it became evident that more diffuse sources (occurring over a wide area) of water pollution, such as agricultural and urban runoff were also major causes of water quality problems. Some diffuse sources of water pollution, such as agricultural storm water discharges and irrigation return flows, are statutorily exempted from the NPDES program.

Since enactment of the 1972 amendments to the CWA, considering the rise of economic activity and population, significant progress in controlling water pollution has been made, particularly with regard to industrial process wastewater and municipal sewage. Expenditures by EPA, the States, and local governments to construct and upgrade sewage treatment facilities have substantially increased the population served by higher levels of treatment. Backlogs of expired permits for industrial process wastewater discharges have been reduced. Continued improvements are expected for these discharges as the NPDES program continues to place increasing emphasis on water quality-based pollution controls, especially for toxic pollutants.

Although assessments of water quality are difficult to perform and verify, several national assessments of water quality are available. For the purpose of these assessments, urban runoff was considered to be a diffuse source or nonpoint source pollution. From a legal standpoint, however, most 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. The "National Water Quality Inventory, 1988 Report to Congress" provides a general assessment of water quality based on biennial reports submitted by the States under section 305(b) of the CWA. In preparing the section 305(b) Reports, the States were asked to indicate the fraction of the States' waters that were assessed, as well as the fraction of the States' waters that were fully supporting, partly supporting, or not supporting designated uses. The Report indicates that of the rivers, lakes, and estuaries that were assessed by States (approximately one-fifth of stream miles, one-third of lake acres and one-half of estuarine waters), roughly 70% to 75% are supporting the uses for which they are designated. For waters with use impairments, States were asked to determine impacts due to diffuse sources (agricultural and urban runoff and other sources), municipal sewage, industrial process wastewaters, combined sewer overflows, and natural and other sources, then combine impacts to arrive at estimates of

the relative percentage of State waters affected by each source. In this manner, the relative importance of the various sources of pollution that are causing use impairments was assessed and weighted national averages were calculated. Based on 37 States that provided information on sources of pollution, industrial process wastewaters were cited as the cause of nonsupport for 7.5% of rivers and streams, 10% of lakes, and 6% of estuaries. Municipal sewage was the cause of nonsupport for 13% of rivers and streams, 5% lakes, 48% estuaries, 41% of the Great Lake shoreline, and 11% of coastal waters. The Assessment concluded that pollution from diffuse sources, such as runoff from agricultural, urban areas, construction sites, land disposal and resource extraction, is cited by the States as the leading cause of water quality impairment. These sources appear to be increasingly important contributors of use impairment as discharges of industrial process wastewaters and municipal sewage plants come under increased control and as intensified data collection efforts provide additional information. Some examples of diffuse sources cited as causing use impairment are: for rivers and streams, 9% from separate storm sewers, 6% from construction and 13% from resource extraction; for lakes, 28% from separate storm sewers and 26% from land disposal; for the Great Lakes shoreline, 10% from separate storm sewers, 34% from resource extraction, and 82% from land disposal; for estuaries, 28% from separate storm sewers and 27% from land disposal; and for coastal areas, 20% from separate storm sewers and 29% from land disposal.

The States conducted a more comprehensive study of diffuse pollution sources under the sponsorship of the Association of State and Interstate Water Pollution Control Administrators (ASIWPCA) and EPA. The study resulted in the report "America's Clean Water—The States' Nonpoint Source Assessment, 1985" which indicated that 38 States reported urban runoff as a major cause of beneficial use impairment. In addition, 21 States reported construction site runoff as a major cause of use impairment.

To provide a better understanding of the nature of urban runoff from commercial and residential areas, from 1978 through 1983, EPA provided funding and guidance to the Nationwide Urban Runoff Program (NURP). The NURP included 28 projects across the Nation, conducted separately at the local level but centrally reviewed, coordinated, and guided.

One focus of the NURP was to characterize the water quality of discharges from separate storm sewers which drain residential, commercial, and light industrial (industrial parks) sites. The majority of samples collected in the study were analyzed for eight conventional pollutants and three metals. Data collected under the NURP indicated that on an annual loading basis, suspended solids in discharges from separate storm sewers draining runoff from residential, commercial and light industrial areas are around an order of magnitude greater than solids in discharges from municipal secondary sewage treatment plants. In addition, the study indicated that annual loadings of chemical oxygen demand (COD) are comparable in magnitude to effluent from secondary sewage treatment plants. When analyzing annual loadings associated with urban runoff, it is important to recognize that discharges of urban runoff are highly intermittent, and that the short-term loadings associated with individual events will be high and may have shockloading effects on receiving water, such as low dissolved oxygen levels. NURP data also showed that fecal coliform counts in urban runoff are typically in the tens to hundreds of thousands per 100 ml of runoff during warm weather conditions, although the study suggested that fecal coliform may not be the most appropriate indicator organism for identifying potential health risks in storm water runoff. Although NURP did not evaluate oil and grease, other studies have demonstrated that urban runoff is an extremely important source of oil pollution to receiving waters, with hydrocarbon levels in urban runoff typically being reported at a range of 2 to 15 mg/l. These hydrocarbons tend to accumulate in bottom sediments where they may persist for long periods of time and exert adverse impacts on benthic organisms.

A portion of the NURP study involved monitoring 120 priority pollutants in storm water discharges from lands used for residential, commercial and light industrial activities. Seventy-seven priority pollutants were detected in samples of storm water discharges from residential, commercial and light industrial lands taken during the NURP study, including 14 inorganic and 63 organic pollutants. Table A-1 shows the priority pollutants which were detected in at least ten percent of the discharge samples which were sampled for priority pollutants.

Table A-1.— Priority Pollutants Detected in at Least 10% of NURP Samples

[In percent]

Frequency of detection

Metals and inorganics:

Antimony	13
Arsenic	52
Beryllium	12
Cadmium	48
Chromium	58
Copper	91
Cyanides	23
Lead	94
Nickel	43
Selenium	11
Zinc	94
Pesticides:	
Alpha-hexachlorocyclohexane	20
Alpha-endosulfan	19
Chlordane	17
Lindane	15
Halogenated aliphatics:	
Methane, dichloro-	11
Phenols and cresols:	
Phenol	14
Phenol, pentachloro-	19
Phenol, 4-nitro	10
Phthalate esters:	
Phthalate, bis(2-ethylhexyl)	22
Polycyclic aromatic hydrocarbons:	
Chrysene	10
Fluoranthene	16
Phenanthrene	12
Pyrene	15

*47992 The NURP data also showed a significant number of these samples exceeded various EPA freshwater water quality criteria.

The NURP study provides insight on what can be considered background levels of pollutants for urban runoff, as the study focused primarily on monitoring runoff from residential, commercial and light industrial areas. However, NURP concluded that the quality of urban runoff can be adversely impacted by several sources of pollutants that were not directly evaluated in the study and are generally not reflected in the NURP data, including illicit connections, construction site runoff, industrial site runoff and illegal dumping.

Other studies have shown that many storm sewers contain illicit discharges of non-storm water and that large amounts of wastes, particularly used oils, are improperly disposed in storm sewers. Removal of these discharges present opportunities for dramatic improvements in the quality of storm water discharges. Storm water discharges from industrial facilities may contain toxics and conventional pollutants when material management practices allow exposure to storm water, in addition to wastes from illicit connections and improperly disposed wastes.

In some municipalities, illicit connections of sanitary, commercial and industrial discharges to storm sewer systems have had a significant impact on the water quality of receiving waters. Although the NURP study did not emphasize the identification of illicit connections to storm sewers (other than to assure that monitoring sites used in the study were free from sanitary sewage contamination), the study concluded that illicit connections can result in high bacterial counts and dangers to public health. The study also noted that removing such discharges presented opportunities for dramatic improvements in the quality of urban storm water discharges.

Studies have shown that illicit connections to storm sewers can create severe, wide-spread contamination problems. For example, the Huron River Pollution Abatement Program inspected 660 businesses, homes and other buildings located in Washtenaw County, Michigan and identified 14% of the buildings as having improper storm drain connections. Illicit discharges were detected at a higher rate of 60% for automobile related businesses, including service stations, automobile dealerships, car washes, body shops and light industrial facilities. While some of the problems discovered in this study were the result of improper plumbing or illegal connections, a majority were approved connections at the time they were built.

Intensive construction activities may result in severe localized impacts on water quality because of high unit loads of pollutants, primarily sediments. Construction sites can also generate other pollutants such as phosphorus and nitrogen from fertilizer, pesticides, petroleum products, construction chemicals and solid wastes. These materials can be toxic to aquatic organisms and degrade water for drinking and water-contact recreation. Sediment loadings rates from construction sites are typically 10 to 20 times that of agricultural lands, with runoff rates as high as 100 times that of agricultural lands, and typically 1,000 to 2,000 times that of forest lands. Even a small amount of construction may have a significant negative impact on water quality in localized areas. Over a short period of time, construction sites can contribute more sediment to streams than was previously deposited over several decades.

II. Water Quality Act of 1987

The WQA contains three provisions which specifically address storm water discharges. The central WQA provision governing storm water discharges is section 405, which adds section 402(p) to the CWA. Section 402(p)(1) provides that EPA or NPDES States cannot require a permit for certain storm water discharges until October 1, 1992, except: for storm water discharges listed under section 402(p)(2). Section 402(p)(2) lists five types of storm water discharges which are required to obtain a permit prior to October 1, 1992:

- (A) A discharge with respect to which a permit has been issued prior to 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; or
- (E) A discharge for which the Administrator or the State, as the case may be, determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States.

Section 402(p)(4)(A) requires EPA to promulgate final regulations governing storm water permit application requirements for storm water discharges associated with industrial activity and discharges from large municipal separate storm sewer systems (systems serving a population of 250,000 or more), "no later than two years" after the date of enactment (i.e., no later than February 4, 1989). Section 402(p)(4)(B) also requires EPA to promulgate final regulations governing storm water permit application requirements for discharges from medium municipal separate storm sewer systems (systems serving a population of 100,000 or more but less than 250,000) "no later than four years" after enactment (i.e., no later than February 4, 1991).

In addition, section 402(p)(4) provides that permit applications for storm water discharges associated with industrial activity and discharges from large municipal separate storm sewer systems "shall be filed no later than three years" after the date of enactment of the WQA (i.e., no later than February 4, 1990). Permit applications for discharges from medium municipal systems must be filed "no later than five years" after enactment (i.e., no later than February 4, 1992).

The WQA clarified and amended the requirements for permits for storm water discharges in the new CWA section 402(p)(3). The Act clarified that permits for discharges associated with industrial activity must meet all of the applicable provisions of section 402 and section 301 *47993 including technology and water quality based standards. However, the new Act makes significant changes to the permit standards for discharges from municipal storm sewers. Section 402(p)(3)(B) provides that permits for such discharges:

- (i) May be issued on a system- or jurisdiction-wide basis;
- (ii) Shall include a requirement to effectively prohibit non-storm water 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.

These changes are discussed in more detail later in today's rule.

The EPA, in consultation with the States, is required to conduct two studies on storm water discharges that are in the class of discharges for which EPA and NPDES States cannot require permits prior to October 1, 1992. The first study will identify those storm water discharges or classes of storm water discharges for which permits are not required prior to October 1, 1992, and determine, to the maximum extent practicable, the nature and extent of pollutants in such discharges. The second study is for the purpose of establishing procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality. Based on the two studies the EPA, in consultation with State and local officials, is required to issue regulations no later than October 1, 1992, which designate additional storm water discharges to be regulated to protect water quality and establish a comprehensive program to regulate such designated sources. This program must, at a minimum, (A) Establish priorities, (B) establish requirements for State storm water management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

Section 401 of the WQA amends section 402(1)(2) of the CWA to provide that the EPA shall not require a permit for discharges of storm water runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities if the storm water discharge is not contaminated by contact with, or does not come into contact with, any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of such operations.

Section 503 of the WQA amends section 502(14) of the CWA to exclude agricultural storm water discharges from the definition of point source.

III. Remand of 1984 Regulations

On December 4, 1987, the United States Court of Appeals for the District of Columbia Circuit vacated 40 CFR 122.26, (as promulgated on September 26, 1984, 49 FR 37998, September 26, 1984), and remanded the regulations to EPA for further rulemaking (*NRDC v. EPA*, No. 80-1607). EPA had requested the remand because of significant changes made by the storm water provisions of the WQA. The effect of the decision was to invalidate the storm water discharge regulations then found at § 122.26.

Storm water discharges which had been issued an NPDES permit prior to February 4, 1987, were not affected by the Court remand or the February 12, 1988, rule implementing the court order (53 FR 4157). (See section 402(p)(2)(A) of the CWA.) Similarly, the remand did not affect the authority of EPA or an NPDES State to require a permit for any storm water discharge (except an agricultural storm water discharge) designated under section 402(p)(2)(E) of the CWA. The notice of the remand clarified that such designated discharges meet the regulatory definition of point source found at 40 CFR 122.2 and that EPA or an NPDES State can rely on the statutory authority and require the filing of an application (Form 1 and Form 2C) for an NPDES permit with respect to such discharges on a case-by-case basis.

IV. Codification Rule and Case-by-Case Designations

Codification Rule

On January 4, 1989, (54 FR 255), EPA published a final rule which codified numerous provisions of the WQA into EPA regulations. The codification rule included several provisions dealing with storm water discharges. The codification rule

promulgated the language found at section 402(p) (1) and (2) of the amended Clean Water Act at 40 CFR 122.26(a)(1). In addition, the codification rule promulgated the language of Section 503 of the WQA which exempted agricultural storm water discharges from the definition of point source at 40 CFR 122.2, and section 401 of the WQA addressing uncontaminated storm water discharges from mining or oil and gas operations at 40 CFR 122.26(a)(2).

EPA also codified the statutory authority of section 402(p)(2)(E) of the CWA for the Administrator or the State Director, as the case may be, to designate storm water discharges for a permit on a case-by-case basis at 40 CFR 122.26(a)(1)(v).

Case by Case Designations

Section 402(p)(2)(E) of the CWA authorizes case-by-case designations of storm water discharges for immediate permitting if the Administrator or the State Director determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States.

In determining that a storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States for the purpose of a designation under section 402(p)(2)(E), the legislative history for the provision provides that "EPA or the State should use any available water quality or sampling data to determine whether the latter two criteria (contributes to a violation of a water quality standard or is a significant contributor of pollutants to waters of the United States) are met, and should require additional sampling as necessary to determine whether or not these criteria are met." Conference Report, Cong. Rec. S16443 (daily ed. October 16, 1986). In accordance with this legislative history, today's rule promulgates permit application requirements for certain storm water discharges, including discharges designated on a case-by-case basis. EPA will consider a number of factors when determining whether a storm water discharge is a significant contributor of pollution to the waters of the United States. These factors include: the location of the discharge with respect to waters of the United States; the size of the discharge; the quantity and nature of the pollutants reaching waters of the United States; and any other relevant factors. Today's rule incorporates these factors at 40 CFR 122.26(a)(1)(v).

Under today's rule, case-by-case designations are made under regulatory procedures found at 40 CFR 124.52. The procedures at 40 CFR 124.52 require that whenever the Director decides that an individual permit is required, the Director shall notify the discharger in writing that the discharge requires a permit and the reasons for the decision. In addition, an application form is sent with the notice. Section 124.52 provides a 60 day period from the date of notice for submitting a permit application. Although this 60 day period may be appropriate for many designated storm water discharges, site specific factors may dictate that the Director provide *47994 additional time for submitting a permit application. For example, due to the complexities associated with designation of a municipal separate storm sewer system for a system- or jurisdiction-wide permit, the Director may provide the applicant with additional time to submit relevant information or may require that information be submitted in several phases.

V. Consent Decree of October 20, 1989

On April 20, 1989, EPA was served notice of intent to sue by Kathy Williams et al, because of the Agency's failure to promulgate final storm regulations on February 4, 1989, pursuant to Section 402(p)(4) of the CWA. A suit was filed by the same party on July 20, 1989, alleging the same cause of action, to wit: the Agency's failure to promulgate regulations under section 402(p)(4) of the CWA. On October 20, 1989, EPA entered into a consent decree with Kathy Williams et al, wherein the Federal District Court, District of Oregon, Southern Division, decreed that the Agency promulgate final regulations for storm water discharges identified in sections 402(p)(2) (B) and (C) of the CWA no later than July 20, 1990. Kathy Williams et al., v. William K. Reilly, Administrator, et al., No. 89-6265-E (D-Ore.) In July 1990, the consent decree was amended to provide for a promulgation date of October 31. Today's rule is promulgated in compliance with the terms of the consent decree as amended.

VI. Today's Final Rule and Response to Comments

A. Overview

Section 405 of the WQA alters the regulatory approach to control pollutants in storm water discharges by adopting a phased and tiered approach. The new provision phases in permit application requirements, permit issuance deadlines and compliance with permit conditions for different categories of storm water discharges. The approach is tiered in that storm water discharges associated with industrial activity must comply with sections 301 and 402 of the CWA (requiring control of the discharge of

pollutants that utilize the Best Available Technology (BAT) and the Best Conventional Pollutant Control Technology (BCT) and where necessary, water quality-based controls), but permits 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.

This final regulation establishes requirements for the storm water permit application process. It also sets forth the required components of municipal storm water quality management plans, as well as a preliminary permitting strategy for industrial activities. In implementing these regulations, EPA and the States will strive to achieve environmental results in a cost effective manner by placing high priority on pollution prevention activities, and by targeting activities based on reducing risk from particularly harmful pollutants and/or from discharges to high value waters. EPA and the States will also work with applicants to avoid cross media transfers of storm water contaminants, especially through injection to shallow wells in the Class V Underground Injection Control Program.

In addition, EPA recognizes that problems associated with storm water, combined sewer overflows (CSOs) and infiltration and inflow (I&I) are all inter-related even though they are treated somewhat differently under the law. EPA believes that it is important to begin linking these programs and activities and, because of the potential cost to local governments, to investigate the use of innovative, non-traditional approaches to reducing or preventing contamination of storm water.

The application process for developing municipal storm water management plans provides an ideal opportunity between steps 1 and 2 for considering the full range of nontraditional, preventive approaches, including municipalities, public awareness/education programs, use of vegetation and/or land conservancy practices, alternative paving materials, creative ways to eliminate I&I and illegal hook-ups, and potentials for water reuse. EPA has already announced its plans to present an award for the best creative, cost effective approaches to storm water and CSOs beginning in 1991.

This rulemaking establishes permit application requirements for classes of storm water discharges that were specifically identified in section 402(p)(2). These priority storm water discharges include storm water discharges associated with industrial activity and discharges from a municipal separate storm sewer serving a population of 100,000 or more.

This rulemaking was developed after careful consideration of 450 sets of comments, comprising over 3200 pages, that were received from a variety of industries, trade associations, municipalities, State and Federal Agencies, environmental groups, and private citizens. These comments were received during a 90-day comment period which extended from December 7, 1988, to March 7, 1989. EPA received several requests for an extension of the comment period from 30-days up to 90-days. Many arguments were advanced for an extension including: the extent and complexity of the proposal, the existence of other concurrent EPA proposals, and the need for technical evaluations of the proposal. EPA considered these comments as they were received, but declined to extend the comment period beyond 90 days. The standard comment period on proposals normally range from 30 to 60 days. In light of the statutory deadline of February 4, 1989, additional time for the comment period beyond what was already a substantially lengthened comment period would have been inappropriate. The number and extent of the comments received on this proposal indicated that interested parties had substantially adequate time to review and comment on the regulation. Furthermore, the public was invited to attend six public meetings in Washington DC, Chicago, Dallas, Oakland, Jacksonville, and Boston to present questions and comments. EPA is convinced that substantial and adequate public participation was sought and received by the Agency.

Numerous commenters have also requested that the rule be repropoed due to the extent of the proposal and the number of options and issues upon which the Agency requested comments. EPA has decided against a reproposal. The December 7, 1988, notice of proposed rulemaking was extremely detailed and thoroughly identified major issues in such a manner as to allow the public clear opportunities to comment. The comments that were received were extensive, and many provided valuable information and ideas that have been incorporated into the regulation. Accordingly, the Agency is confident it has produced a workable and rational approach to the initial regulation of storm water discharges and a regulation that reflects the experience and knowledge of the public as provided in the comments, and which was developed in accordance with the *47995 procedural

requirements of the Administrative Procedures Act (APA). EPA believes that while the number of issues raised by the proposal was extensive, the number of detailed comments indicates that the public was able to understand the issues in order to comment adequately. Thus, a reproposal is unnecessary.

B. Definition of Storm Water

The December 7, 1988, notice requested comment on defining storm water as storm water runoff, surface runoff, street wash waters related to street cleaning or maintenance, infiltration (other than infiltration contaminated by seepage from sanitary sewers or by other discharges) and drainage related to storm events or snow melt. This definition is consistent with the regulatory definition of "storm sewer" at 40 CFR 35.2005(b)(47) which is used in the context of grants for construction of treatment works. This definition aids in distinguishing separate storm water sewers from sanitary sewers, combined sewers, process discharge outfalls and non-storm water, non-process discharge outfalls.

The definition of "storm water" has an important bearing on the NPDES permitting scheme under the CWA. The following discusses the interrelationship of NPDES permitting requirements for storm water discharges addressed by this rule and NPDES permitting requirements for other non-storm water discharges which may be discharged via the storm sewer as a storm water discharge. Today's rule addresses permit application requirements for storm water discharges associated with industrial activity and for discharges from municipal separate storm sewer systems serving a population of 100,000 or more. Storm water discharges associated with industrial activity are to be covered by permits which contain technology-based controls based on BAT/BCT considerations or water quality-based controls, if necessary. A permit for storm water discharges from an industrial facility may also cover other non-storm water discharges from the facility. Today's rule establishes individual (Form 1 and Form 2F) and group application requirements for storm water discharges associated with industrial activity. In addition, EPA or authorized NPDES States with authorized general permit programs may issue general permits which establish alternative application or notification requirements for storm water discharges covered by the general permit(s). Where a storm water discharge associated with industrial activity is mixed with a non-storm water discharge, both discharges must be covered by an NPDES permit (this can be in the same permit or with multiple permits). Permit application requirements for these "combination" discharges are discussed later in today's notice.

Today's rule also addresses permit application requirements for discharges from municipal separate storm sewer systems serving a population of 100,000 or more. Under today's rule, appropriate municipal owners or operators of these systems must obtain NPDES permits for discharges from these systems. These permits are to establish controls to the maximum extent practicable (MEP), effectively prohibit non-storm water discharges to the municipal separate storm sewer system and, where necessary, contain applicable water quality-based controls. Where non-storm water discharges or storm water discharges associated with industrial activity discharge through a municipal separate storm sewer system (including systems serving a population of 100,000 or more as well as other systems), which ultimately discharges to a waters of the United States, such discharges through a municipal storm sewer need to be covered by an NPDES permit that is independent of the permit issued for discharges from the municipal separate storm sewer system. Today's rule defines the term "illicit discharge" to describe any discharge through a municipal separate storm sewer 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 CWA. Section 402(p)(3)(B) of the CWA 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. As discussed in more detail below, today's rule begins to implement the "effective prohibition" by requiring municipal operators of municipal separate storm sewer systems serving a population of 100,000 or more to submit a description of a program to detect and control certain non-storm water discharges to their municipal system. 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 (other than the permit for the discharge from the municipal separate storm sewer). For reasons discussed in more detail below, in general, municipalities will not be held responsible for prohibiting some specific components of discharges or flows listed below through their municipal separate storm sewer system, 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. However, operators of such non-storm water discharges need to obtain NPDES permits for these discharges under the present framework of the CWA (rather than the municipal operator of the municipal separate storm sewer system).

(Note that section 516 of the Water Quality Act of 1987 requires EPA to conduct a study of de minimis discharges of pollutants to waters of the United States and to determine the most effective and appropriate methods of regulating any such discharges.)

EPA received numerous comments on the proposed regulatory definition of storm water, many of which proposed exclusions or additions to the definition. Several commenters suggested that the definition should include or not include detention and retention reservoir releases, water line flushing, fire hydrant flushing, runoff from fire fighting, swimming pool drainage and discharge, landscape irrigation, diverted stream flows, uncontaminated pumped ground water, rising ground waters, discharges from potable water sources, uncontaminated waters from cooling towers, foundation drains, non-contact cooling water (such as HVAC or heating, ventilation and air conditioning condensation water that POTWs require to be discharged to separate storm sewers rather than sanitary sewers), irrigation water, springs, roof drains, water from crawl space pumps, footing drains, lawn watering, individual car washing, flows from riparian habitats and wetlands. Most of these comments were made with regard to the concern that these were commonly occurring discharges which did not pose significant environmental problems. It was also noted that, unless these flows are classified as storm water, permits would be required for these discharges.

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 under the NPDES program 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, nor did it intend for section 402(p) to be used to *47996 provide a moratorium from permitting other non-storm water discharges. Consequently, the final definition of storm water has not been expanded from what was proposed. However, as discussed in more detail later in today's notice, municipal operators of municipal separate storm sewer systems will generally not be held responsible for "effectively prohibiting" limited classes of these discharges through their municipal separate storm sewer systems.

The proposed rule included infiltration in the definition of storm water. In this context one commenter suggested that the term infiltration be defined. Infiltration is defined at 40 CFR 35.2005(b)(20) as water other than wastewater that enters a sewer system (including sewer service connections and foundation drains) from the ground through such means as defective pipes, pipe joints, connections or manholes. Infiltration does not include, and is distinguished from, inflow. Another commenter urged that ground water infiltration not be classified as storm water because the chemical characteristics and contaminants of ground water will differ from surface storm water because of a longer contact period with materials in the soil and because ground water quality will not reflect current practices at the site. In today's rule, the definition of storm water excludes infiltration since pollutants in these flows will depend on a large number of factors, including interactions with soil and past land use practices at a given site. Further infiltration flows can be contaminated by sources that are not related to precipitation events, such as seepage from sanitary sewers. Accordingly the final regulatory language does not include infiltration in the definition of storm water. Such flows may be subject to appropriate permit conditions in industrial permits. As discussed in more detail below, municipal management programs must address infiltration where identified as a source of pollutants to waters of the United States.

One commenter questioned the status of discharges from detention and retention basins used to collect storm water. This regulation covers discharges of storm water associated with industrial activity and discharges from municipal separate storm sewer systems serving a population of 100,000 or more into waters of the United States. Therefore, discharges from basins that are part of a conveyance system for a storm water discharge associated with industrial activity or part of a municipal separate storm sewer system serving a population of 100,000 or more are covered by this regulation. Flows which are channeled into basins and which do not discharge into waters of the United States are not addressed by today's rule.

Several commenters requested that the term illicit connection be replaced with a term that does not connote illegal discharges or activity, because many discharges of non-storm water to municipal separate storm sewer systems occurred prior to the establishment of the NPDES program and in accordance with local or State requirements at the time of the connection. EPA disagrees that there should be a change in this terminology. The fact that these connections were at one time legal does not confer such status now. The CWA prohibits the point source discharge of non-storm water not subject to an NPDES permit through municipal separate storm sewers to waters of the United States. Thus, classifying such discharges as illicit properly identifies such discharges as being illegal.

A commenter wanted clarification of the terms "other discharges" and "drainage" that are used in the definition of "storm water." As noted above, today's rule clarifies that infiltration is not considered storm water. Thus the portion of the definition of storm water that refers to "other discharges" has also been removed. However, the term drainage has been retained. "Drainage" does not take on any meaning other than the flow of runoff into a conveyance, as the word is commonly understood.

One commenter stated that irrigation flows combined with storm water discharges should be excluded from consideration in the storm water program. The Agency would note that irrigation return flows are excluded from regulation under the NPDES program. Section 402(I)(1) states that the Administrator or the State shall not require permits for discharges composed entirely of return flows from irrigated agriculture. The legislative history of the 1977 Clean Water Act, which enacted this language, states that the word "entirely" was intended to limit the exception to only those flows which do not contain additional discharges from activities unrelated to crop production. Congressional Record Vol. 123 (1977), pg. 4360, Senate Report No. 95-370. Accordingly, a storm water discharge component, from an industrial facility for example, included in such "joint" discharges may be regulated pursuant to an NPDES permit either at the point at which the storm water flow enters or joins the irrigation flow, or where the combined flow enters waters of the United States or a municipal separate storm sewer.

Some commenters expressed concern about including street wash waters as storm water. One commenter argued including street wash waters in the definition of storm water should not be construed to eliminate the need for management practices relating to construction activities where sediment may simply wash into storm drains. EPA agrees with these points and the concerns that storm sewers may receive material that pose environmental problems if street wash waters are included in the definition. Accordingly, such discharges are no longer in the definition as proposed, and must be addressed by municipal management programs as part of the prohibition on non-storm water discharges through municipal separate storm sewer systems.

Several commenters requested that the terms discharge and point source, in the context of permits for storm water discharge, be clarified. Several commenters stated that the EPA should clarify that storm water discharge does not include "sheet flow" off of an industrial facility. EPA interprets this as request for clarification on the status of the terms "point source" and "discharge" under these regulations. In response, this rulemaking only covers storm water discharges from point sources. A point source is defined at 40 CFR 122.2 as "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, 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." EPA agrees with one commenter that this definition is adequate for defining what discharges of storm water are covered by this rulemaking. EPA notes that this definition would encompass municipal separate storm sewers. In view of this comprehensive definition of point source, EPA need clarify in this rulemaking only that a storm water discharge subject to NPDES regulation does not include storm water that enters the waters of the United States via means other than a "point source." As further discussed below, storm water from an industrial facility which enters and is subsequently discharged through a municipal separate storm sewer is a "discharge associated with industrial *47997 activity" which must be covered by an individual or general permit pursuant to today's rule.

EPA would also note that individual facilities have the burden of determining whether a permit application should be submitted to address a point source discharge. Those unsure of the classification of storm water flow from a facility, should file permit applications addressing the flow, or prior to submitting the application consult permitting authorities for clarification.

One commenter stated that "point source" for this rulemaking should be defined, for the purposes of achieving better water quality, as those areas where "discharges leave the municipal [separate storm sewer] system." EPA notes in response that "point source" as currently defined will address such discharges, while keeping the definition of discharge and point source within the framework of the NPDES program, and without adding potentially confusing and ambiguous additional definitions to the regulation. If this comment is asserting that the term point source should not include discharges from sources through the municipal system, EPA disagrees. As discussed in detail below, discharges through municipal separate storm sewer systems which are not connected to an operable treatment works are discharges subject to NPDES permit requirements at (40 CFR 122.3(c)), and may properly be deemed point sources.

One industry argued that the definition of "point source" should be modified for storm water discharges so as to exclude discharges from land that is not artificially graded and which has a propensity to form channels where precipitation runs off. EPA intends to embrace the broadest possible definition of point source consistent with the legislative intent of the CWA and court interpretations to include any identifiable conveyance from which pollutants might enter the waters of the United States. In most court cases interpreting the term "point source", the term has been interpreted broadly. For example, the holding in *Sierra Club v. Abston Construction Co., Inc.*, 620 F.2d 41 (5th Cir. 1980) indicates that changing the surface of land or establishing grading patterns on land will result in a point source where the runoff from the site is ultimately discharged to waters of the United States:

Simple erosion over the material surface, resulting in the discharge of water and other materials into navigable waters, does not constitute a point source discharge, absent some effort to change the surface, to direct the water flow or otherwise impede its progress * * * Gravity flow, resulting in a discharge into a navigable body of water, may be part of a point source discharge if the (discharger) at least initially collected or channeled the water and other materials. A point source of pollution may also be present where (dischargers) design spoil piles from discarded overburden such that, during periods of precipitation, erosion of spoil pile walls results in discharges into a navigable body of water by means of ditches, gullies and similar conveyances, even if the (dischargers) have done nothing beyond the mere collection of rock and other materials * * * Nothing in the Act relieves (dischargers) from liability simply because the operators did not actually construct those conveyances, so long as they are reasonably likely to be the means by which pollutants are ultimately deposited into a navigable body of water. Conveyances of pollution formed either as a result of natural erosion or by material means, and which constitute a component of a * * * drainage system, may fit the statutory definition and thereby subject the operators to liability under the Act." 620 F.2d at 45 (emphasis added).

Under this approach, point source discharges of storm water result from structures which increase the imperviousness of the ground which acts to collect runoff, with runoff being conveyed along the resulting drainage or grading patterns.

The entire thrust of today's regulation is to control pollutants that enter receiving water from storm water conveyances. It is these conveyances that will carry the largest volume of water and higher levels of pollutants. The storm water permit application process and permit conditions will address circumstances and discharges peculiar to individual facilities.

One industry commented that the definition of waters of the State under some State NPDES programs included municipal storm sewer systems. The commenter was concerned that certain industrial facilities discharging through municipal storm sewers in these states would be required to obtain an NPDES permit, despite EPA's proposal not to require permits from such facilities generally. In response, EPA notes that section 510 of the CWA, approved States are able to have stricter requirements in their NPDES program. In approved NPDES States, the definition of waters of the State controls with regard to what constitutes a discharge to a water body. However, EPA believes that this will have little impact, since, as discussed below, all industrial dischargers, including those discharging through municipal separate storm sewer systems, will be subject to general or individual NPDES permits, regardless of any additional State requirements.

One municipality commented that neither the term "point source" nor "discharge" should be used in conjunction with industrial releases into urban storm water systems because that gives the impression that such systems are navigable waters. EPA disagrees that any confusion should result from the use of these terms in this context. In this rulemaking, EPA always addresses such discharges as "discharges through municipal separate storm sewer systems" as opposed to "discharges to waters of the United States." Nonetheless, such industrial discharges through municipal storm sewer systems are subject to the requirements of today's rule, as discussed elsewhere.

One commenter desired clarification with regard to what constituted an outfall, and if an outfall could be a pipe that connected two storm water conveyances. This rulemaking defines outfall as a point of discharge into the waters of the United States, and not a conveyance which connects to Sections of municipal separate storm sewer. In response to another comment, this rulemaking only addresses discharges to waters of United States, consequently discharges to ground waters are not covered by this rulemaking (unless there is a hydrological connection between the ground water and a nearby surface water body. See,

e.g., *Exxon Coro. v. Train*, 554 F.2d 1310, 1312 n.1 (5th Cir. 1977); *McClellan Ecological Seepage Situation v. Weinberger*, 707 F.Supp. 1182, 1195-96 (E.D. Cal. 1988)).

In the WQA and other places, the term "storm water" is presented as a single word. Numerous comments were received by EPA as to the appropriate spelling. Many of these comments recommended that two words for storm water is appropriate. EPA has decided to use an approach consistent with the Government Printing Office's approved form where storm water appears as two words.

C. Responsibility for Storm Water Discharges Associated With Industrial Activity Through Municipal Separate Storm Sewers

The December 7, 1988, notice of proposed rulemaking requested comments on the appropriate permitting scheme for storm water discharges associated with industrial activity through municipal separate storm sewers. EPA proposed a permitting scheme that would define the requirement to obtain coverage under an NPDES permit for a storm water discharge associated with industrial activity through a municipal separate storm sewer in terms of the classification of the municipal separate storm sewer. EPA proposed holding municipal operators of large or medium *47998 municipal separate storm sewer systems primarily responsible for applying for and obtaining an NPDES permit covering system discharges as well as storm water discharges (including storm water discharges associated with industrial activity) through the system. Under the proposed approach, operators of storm water discharges associated with industrial activity which discharge through a large or medium municipal separate storm sewer system would generally not be required to obtain permit coverage for their discharge (unless designated as a significant contributor of pollution pursuant to section 402(p)(2)(E)) provided the municipality was notified of: The name, location and type of facility and a certification that the discharge has been tested (if feasible) for non-storm water (including the results of any testing). The notification procedure also required the operator of the storm water discharge associated with industrial activity to determine that: The discharge is composed entirely of storm water; the discharge does not contain hazardous substances in excess of reporting quantities; and the facility is in compliance with applicable provisions of the NPDES permit issued to the municipality for storm water.

In the proposal, EPA also requested comments on whether a decision on regulatory requirements for storm water discharges associated with industrial activity through other municipal separate storm sewer systems (generally those serving a population of less than 100,000) should be postponed until completion of two studies of storm water discharges required under section 402(p)(5) of the CWA.

EPA favored these approaches because they appeared to reduce the potential administrative burden associated with preparing and processing the thousands of permit applications associated with the rulemaking and provide EPA additional flexibility in developing permitting requirements for storm water discharges associated with industrial activity. EPA also expressed its belief, based upon an analysis of ordinances controlling construction site runoff in place in certain cities, that municipalities generally possessed legal authority sufficient to control contributions of industrial storm water pollutants to their separate storm sewers to the degree necessary to implement the proposed rule. EPA commented that municipal controls on industrial sources implemented to comply with an NPDES permit issued to the municipality would likely result in a level of storm water pollution control very similar to that put directly on the industrial source through its own NPDES permit. This was to be accomplished by requiring municipal permittees, to the maximum extent practicable, to require industrial facilities in the municipality to develop and implement storm water controls based on a consideration of the same or similar factors as those used to make BAT/BCT determinations. (See 40 CFR 125.3 (d)(2) and (d)(3)).

The great majority of commenters on the December 7, 1988, notice addressed this aspect of the proposal. Based on consideration of the comments received on the notice, EPA has decided that it is appropriate to revise the approach in its proposed rule to require direct permit coverage for all storm water discharges associated with industrial activity, including those that discharge through municipal separate storm sewers. In response to this decision, EPA has continued to analyze the appropriate manner to respond to the large number of storm water discharges subject to this rulemaking. The development of EPA's policy regarding permitting these discharges is discussed in more detail in the section VI.D of today's preamble.

EPA notes that the status of discharges associated with industrial activity which pass through a municipal separate storm sewer system under section 402(p) raises difficult legal and policy questions. EPA believes that treating these discharges under permits separate from those issued to the municipality will most fully address both the legal and policy concerns raised in public comment.

Certain commenters supported EPA's proposal. Some commenters claimed that EPA lacked any authority to permit industrial discharges which were not discharged immediately to waters of the U.S. Other commenters agreed with EPA's statements in the proposal that its approach would result in a more manageable administrative burden for EPA and the NPDES states. However, numerous comments also were received which provided various arguments in support of revising the proposed approach. These comments addressed several areas including the definition of discharge under the CWA, the requirements and associated statutory time frames of section 402(p), as well as the resource and enforcement constraints of municipalities. EPA is persuaded by these comments and has modified its approach accordingly. The key comments on this issue are discussed below.

EPA disagrees with commenters who suggested that EPA lacks authority to permit separately industrial discharges through municipal sewers. The CWA prohibits the discharge of a pollutant except pursuant to an NPDES permit. Section 502(12)(A) of the CWA defines the "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source." [FN1] There is no qualification in the statutory language regarding the source of the pollutants being discharged. Thus, pollutants from a remote location which are discharged through a point source conveyance controlled by a different entity (such as a municipal storm sewer) are nonetheless discharges for which a permit is required.

EPA's regulatory definition of the term "discharge" reflects this broad construction. EPA defines the term to include

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, municipality, or other person which does not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

40 CFR § 122.2 (1989) (emphasis added). The only exception to this general rule is the one contemplated by section 307(b) of the CWA, i.e., the introduction of pollutants into publicly-owned treatment works. EPA treats these as "indirect discharges," subject not to NPDES requirements, but to pretreatment standards under section 307(b).

In light of its construction of the term discharge, EPA has consistently maintained that a person who sends pollutants from a remote location through a point source into a water of the U.S. may be held liable for the unpermitted discharge of that pollutant. Thus, EPA asserts the authority to require a permit either from the operator of the point source conveyance, (such as a municipal storm sewer or a privately-owned treatment works), or from any person causing pollutants to be present in that conveyance and discharged through the point source, or both. See Decision of the General Counsel (of EPA) No. 43 ("In re Friendswood Development Co.") (June 11, 1976) (operator of privately owned treatment work and dischargers to it are both subject to NPDES permit requirements). See also, 40 CFR 122.3(g), 122.44(m) *47999 (NPDES permit writer has discretion to permit contributors to a privately owned treatment works as direct dischargers). In other words, where pollutants are added by one person to a conveyance owned/operated by another person, and that conveyance discharges those pollutants through a point source, EPA may permit either person or both to ensure that the discharge is properly controlled. Pollutants from industrial sites discharged through a storm sewer to a point source are appropriately treated in this fashion.

Furthermore, EPA believes that storm water from an industrial plant which is discharged through a municipal storm sewer is a "discharge associated with industrial activity." Today's rule, as in the proposal, defines discharges associated with industrial activity solely in terms of the origin of the storm water runoff. There is no distinction for how the storm water reaches the waters of the U.S. In other words, pollutants in storm water from an industrial plant which are discharged are "associated with industrial activity," regardless of whether the industrial facility operates the conveyance discharging the storm water (or whether the storm water is ultimately discharged through a municipal storm sewer). Indeed, there is no distinction in the "industrial" nature of these two types of discharges. The pollutants of concern in an industrial storm water discharge are present when the storm water leaves the facility, either through an industrial or municipal storm water conveyance. EPA has no data to suggest that

the pollutants in industrial storm water entering a municipal storm sewer are any different than those in storm water discharged immediately to a water of the U.S. Thus, industrial storm water in a municipal sewer is properly classified as "associated with industrial activity." Although EPA proposed not to cover these discharges by separate permit, the Agency believes that it is clearly not precluded from doing so.

Many comments also supported the proposed approach, noting that holding municipalities primarily responsible for obtaining a permit which covers industrial storm water discharges through municipal systems would reduce the administrative burden associated with preparing and processing thousands of permit applications—permit applications that would be submitted if each industrial discharger through a large or medium municipal separate storm sewer system had to apply individually (or as part of a group application).

EPA appreciates these concerns. Yet EPA also recognizes that there are also significant problems with putting the burden of controlling these sources on the municipalities (except for designated discharges) which must be balanced with the concerns about the permit application burden on industries. The industrial permitting strategy discussed in section VI.D below attempts to achieve this balance.

EPA also does not believe that the administrative burden will be nearly as significant as originally thought, for several reasons. First, as discussed in section VI.F.2 below and in response to significant public comment, EPA has significantly narrowed the scope of the definition of "associated with industrial activity" to focus in on those facilities which are most commonly considered "industrial" and thought to have the potential for the highest levels of pollutants in their storm water discharges. EPA believes this is a more appropriate way to ensure a manageable scope for the industrial storm water program in light of the statutory language of section 402(p), since it does not attempt to arbitrarily distinguish industrial facilities on the basis of the ownership of the conveyance through which a facility discharges its storm water. Second, EPA's industrial permitting strategy discussed in section VI.D is designed around aggressive use of general permits to cover the vast majority of industrial sources. These general permits will require industrial facilities to develop storm water control plans and practices similar to those that would have been required by the municipality. Yet, general permits will eliminate the need for thousands of individual or group permit applications, greatly reducing the burden on both industry EPA/States. Finally, even under the proposal, EPA believes that a large number of industrial dischargers would have been appropriate for designation for individual permitting under section 402(p)(2)(E), with the attendant individual application requirements. Today's approach will actually decrease the overall burden on these facilities; rather than filing an individual permit application upon designation, these facilities will generally be covered by a general permit.

By contrast, several commenters asserted that not only does EPA have the authority to cover these discharges by separate permit, it is required to by the language of section 402(p). As discussed above, storm water from an industrial plant which passes through a municipal storm sewer to a point source and is discharged to waters of the U.S. is a "discharge associated with industrial activity." Therefore, it is subject to the appropriate requirements of section 402(p). The operator of the discharge (or the industrial facility where the storm water originates) must apply for a permit within three years of the 1987 amendments (i.e., Feb. 4, 1990); [FN2] EPA must issue a permit by one year later (Feb. 4, 1991); and the permit must require compliance within three years of permit issuance. That permit must ensure that the discharge is in compliance with all appropriate provisions of sections 301 and 402. Commenters asserted that EPA's proposal would violate these two requirements of the law. First, the statute requires all industrial storm water discharges to obtain a permit in the first round of permitting (i.e., February 4, 1990). However, Congress established a different framework to address discharges from small municipal separate storm sewer systems. Section 402(p) requires EPA to complete two studies of storm water discharges, and based on those studies, promulgate additional regulations, including requirements for state storm water management programs by October 1, 1992. EPA is prohibited from issuing permits for storm water discharges from small municipal systems until October 1, 1992 unless the discharge is designated under section 402(p)(2)(E). Thus, industrial storm water discharges from these systems would not be covered by a permit until later than contemplated by statute. Second, permits for municipal storm sewer systems require controls on storm water discharges "to the maximum extent practicable," as opposed to the BAT/BCT requirements of section 301(b)(2). Yet, all industrial storm water discharges must comply with section 301(b)(2). Thus, covering industrial storm water under a municipal storm water permit will not ensure the legally-required level of control of industrial storm water discharges.

In addition to comments on the requirements of section 402(p), EPA received several comments questioning whether EPA's proposal to cover industrial pollutants in municipal separate storm sewers solely in the permit issued to the municipality would ensure adequate control of these pollutants due to both inadequate *48000 resources and enforcement. Some municipalities stated that the burdens of this responsibility would be too great with regard to source identification and general administration of the program. These commenters claimed they lacked the necessary technical and regulatory expertise to regulate such sources. Commenters also noted that additional resources to control these sources would be difficult to obtain given the restrictions on local taxation in many states and the fact that EPA will not be providing funding to local governments to implement their storm water programs.

Municipalities also expressed concerns regarding enforcement of EPA's proposed approach. Some municipalities remarked that they did not have appropriate legal authority to address these discharges. Several commenters also stated that requiring municipalities to be responsible for addressing storm water discharges associated with industrial activity through their municipal system would result in unequal treatment of industries nationwide because of different municipal requirements and enforcement procedures. Several municipal entities expressed concern with regard to their responsibility and liability for pollutants discharged to their municipal storm sewer system, and further asserted that it was unfair to require municipalities to bear the full cost of controlling such pollutants. Other municipalities suggested that overall municipal storm water control would be impaired, since municipalities would spend a disproportionate amount of resources trying to control industrial discharges through their sewers, rather than addressing other storm water problems. In a related vein, certain commenters suggested that, where industrial storm water was a significant problem in a municipal sewer, EPA's proposed approach would hamper enforcement at the federal/state level, since all enforcement measures could be directed only at the municipality, rather than at the most direct source of that problem.

In response to all of these concerns, EPA has decided to require storm water discharges associated with industrial activity which discharge through municipal separate storm sewers to obtain separate individual or general NPDES permits. EPA believes that this change will adequately address all of the key concerns raised by commenters.

The Agency was particularly influenced by concerns that many municipalities lacked the authority under state law to address industrial storm water practices. EPA had assumed that since several cities regulate construction site activities, that they could regulate other industrial operations in a similar manner. Several commenters suggested otherwise. In light of these concerns, EPA agrees with certain commenters that municipal controls on industrial facilities, in lieu of federal control, might not comply with section 402(p)(3)(A) for those facilities.[FN3] This calls into question whether EPA's proposed approach would have reasonably implemented Congressional intent to address industrial storm water early and stringently in the permitting process.

EPA also agrees with those commenters who argued that municipal controls on industrial storm water sources were not directly analogous to the pretreatment program under section 307(b), as EPA suggested in the preamble to the proposal. The authority of cities to control the type and volume of industrial pollutants into a POTW is generally unquestioned under the laws of most states, since sewage and industrial waste treatment is a service provided by the municipality. Thus, EPA has greater confidence that cities can and will adopt effective pretreatment programs. By contrast, many cities are limited in the types of controls they can impose on flows into storm sewers; cities are more often limited to regulations on quantity of industrial flows to prevent flooding the system. So too, the pretreatment program allows for federal enforcement of local pretreatment requirements. Enforcement against direct dischargers (including dischargers through municipal storm sewers) is possible only when the municipal requirements are contained in an NPDES permit.

Although today's rule will require industrial discharges through municipal storm sewers to be covered by separate permit, EPA still believes that municipal operators of large and medium municipal systems have an important role in source identification and the development of pollutant controls for industries that discharge storm water through municipal separate storm sewer systems is appropriate. Under the CWA, large and medium municipalities are responsible for reducing pollutants in discharges from municipal separate storm sewers to the maximum extent practicable. 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 with industrial activity through their system in their storm water management program.

(See section VI.H.7. of today's preamble.) The CWA provides that permits for municipal separate storm sewers shall require municipalities to reduce pollutants to the maximum extent practicable. Permits issued to municipalities for discharges from municipal separate storm sewers will reflect terms, specified controls, and programs that achieve that goal. As with all NPDES permits, responsibility and liability is determined by the discharger's compliance with the terms of the permit. A municipality's responsibility for industrial storm water discharged through their system is governed by the terms of the permit issued. If an industrial source discharges storm water through a municipal separate storm sewer in violation of requirements incorporated into a permit for the industrial facility's discharge, that industrial operator of the discharge may be subject to an enforcement action instituted by the Director of the NPDES program.

Today's rule also requires operators of storm water discharges associated with industrial activity through large and medium municipal systems to provide municipal entities of the name, location, and type of facility that is discharging to the municipal system. This information will provide municipalities with a base of information from which management plans can be devised and implemented. This requirement is in addition to any requirements contained in the industrial facility's permit. As in the proposal, the notification process will assist cities in development of their industrial control programs.

EPA intends for the NPDES program, through requirements in permits for storm water discharges associated with industrial activity, to work in concert with municipalities in the industrial component of their storm water management program efforts. EPA believes that permitting of municipal storm sewer systems and the industrial discharges through them will act in a complementary manner to fully control the pollutants in those sewer systems. This will fully implement the intent of **48001* Congress to control industrial as well as large and medium municipal storm water discharges as expeditiously and effectively as possible. This approach will also address the concerns of municipalities that they lack sufficient authority and resources to control all industrial contributions to their storm sewers and will be liable for discharges outside of their control.

The permit application requirements for large and medium municipal separate storm sewer systems, discussed in more detail later in today's preamble, address the responsibilities of the municipal operators of these systems to identify and control pollutants in storm water discharges associated with industrial activity. Permit applications for large and medium municipal separate storm sewer systems are to identify the location of facilities which discharge storm water associated with industrial activity to the municipal system (see section VI.H.7. of the preamble). In addition, municipal applicants will provide a description of a proposed management program to reduce, to the maximum extent practicable, pollutants from storm water discharges associated with industrial activity which discharge to the municipal system (see section VI.H.7.c of this preamble). EPA notes that each municipal program will be tailored to the conditions in that city. Differences in regional weather patterns, hydrology, water quality standards, and storm sewer systems themselves dictate that storm water management practices will vary to some degree in each municipality. Accordingly, similar industrial storm water discharges may be treated differently in terms of the requirements imposed by the municipality, depending on the municipal program. Nonetheless, any individual or general permit issued to the industrial facility must comply with section 402(p)(3)(A) of the CWA.

EPA intends to provide assistance and guidance to municipalities and permitting authorities for developing storm water management programs that achieve permit requirements. EPA intends to issue a guidance document addressing municipal permit applications in the near term.

Controls developed in management plans for municipal system permits may take a variety of forms. Where necessary, municipal permittees can pursue local remedies to develop measures to reduce pollutants or halt storm water discharges with high levels of pollutants through municipal storm sewer systems. Some local entities have already implemented ordinances or laws that are designed to reduce the discharge of pollutants to municipal separate storm sewers, while other municipalities have developed a variety of techniques to control pollutants in storm water. Alternatively, where appropriate, municipal permittees may develop end-of-pipe controls to control pollutants in these discharges such as regional wet detention ponds or diverting flow to publicly owned treatment works. Finally, municipal applicants may bring individual storm water discharges, which cannot be adequately controlled by the municipal permittees or general permit coverage, to the attention of the permitting authority. Then, at the Director's discretion, appropriate additional controls can be required in the permit for the facility generating the targeted storm water discharge.

One commenter suggested that municipal operators of municipal separate storm sewers should have control over all storm water discharges from a facility that discharges both through the municipal system and to waters of the United States. In response, under this regulatory and statutory scheme, industries that discharge storm water directly into the waters of the United States, through municipal separate storm sewer systems, or both are required to obtain permit coverage for their discharges. However, municipalities are not precluded from exercising control over such facilities through their own municipal authorities.

It is important to note that EPA has established effluent guideline limitations for storm water discharges for nine subcategories of industrial dischargers (Cement Manufacturing (40 CFR part 411), Feedlots (40 CFR part 412), Fertilizer Manufacturing (40 CFR part 418), Petroleum Refining (40 CFR part 419), Phosphate Manufacturing (40 CFR part 422), Steam Electric (40 CFR part 423), Coal Mining (40 CFR part 434), Ore Mining and Dressing (40 CFR part 440) and Asphalt (40 CFR part 441)). Most of the existing facilities in these subcategories already have individual permits for their storm water discharges. Under today's rule, facilities with existing NPDES permits for storm water discharges through a municipal storm sewer will be required to maintain these permits and apply for an individual permit, under § 122.26(c), when existing permits expire. EPA received numerous comments supporting this decision because requiring facilities that have existing permits to comply with today's requirements immediately would be inefficient and not serve improved water quality.

Sections 402(p) (1) and (2) of the CWA provide that discharges from municipal separate storm sewer systems serving a population of less than 100,000 are not required to obtain a permit prior to October 1, 1992, unless designated on a case-by-case basis under section 402(p)(2)(E). However, as discussed above, storm water discharges associated with industrial activity through such municipal systems are not excluded. Thus, under today's rule, all storm water discharges associated with industrial activity that discharge through municipal separate storm sewer systems are required to obtain NPDES permit coverage, including those which discharge through systems serving populations less than 100,000. EPA believes requiring permits will address the legal concerns raised by commenters regarding these sources. In addition, it will allow for control of these significant sources of pollution while EPA continues to study under section 402(p)(6) whether to require the development of municipal storm water management plans in these municipalities. If these municipalities do ultimately obtain NPDES permits for their municipal separate storm sewer systems, early permitting of the industrial contributions may aid those cities in their storm water management efforts.

In the December 7, 1988, proposal, EPA recognized that storm water discharges associated with industrial activity from Federal facilities through municipal separate storm sewer systems may pose unique legal and administrative situations. EPA received numerous comments on this issue, with most of these comments coming from cities and counties. The comments reflected a general concern with respect to a municipality's ability to control Federal storm water discharges through municipal separate storm sewer systems. Most municipalities stated that they do not have the legal authority to adequately enforce against problem storm water discharges from Federal facilities and that these facilities should be required to obtain separate storm water permits. Some commenters stated that they have no Constitutional authority to regulate Federal facilities or establish regulation for such facilities. Some commenters indicated that Federal facilities could not be inspected, monitored, or subjected to enforcement for national security and other jurisdictional reasons. Some commenters argued that without clearly stated legal authority for the municipality, such dischargers should be required to obtain permits. One *48002 municipality pointed out that Federal facilities within city limits are exempted from their Erosion and Sediment Control Act and that permits for these facilities should be required.

Under today's rule, Federal facilities which discharge storm water associated with industrial activity through municipal separate storm sewer systems will be required to obtain NPDES permit coverage under Federal or State law. EPA believes this will cure the legal authority problems at the local level raised by the commenters. EPA notes that this requirement is consistent with section 313(a) of the CWA.

D. Preliminary Permitting Strategy for Storm Water Discharges Associated With Industrial Activity

Many of the comments received on the December 7, 1988, proposal focused on the difficulties that EPA Regions and authorized NPDES States, with their finite resources, will have in implementing an effective permitting program for the large number of storm water discharges associated with industrial activity. Many commenters noted that problems with implementing permit

programs are caused not only by the large number of industrial facilities subject to the program, but by the difficulties associated with identifying appropriate technologies for controlling storm water at various sites and the differences in the nature and extent of storm water discharges from different types of industrial facilities.

EPA recognizes these concerns; and based on a consideration of comments from authorized NPDES States, municipalities, industrial facilities and environmental groups on the permitting framework and permit application requirements for storm water discharges associated with industrial activity, EPA is in the process of developing a preliminary strategy for permitting storm water discharges associated with industrial activity. In developing this strategy, EPA recognizes that the CWA provides flexibility in the manner in which NPDES permits are issued.[FN4] EPA intends to use this flexibility in designing a workable and reasonable permitting system. In accordance with these considerations, EPA intends to publish in the near future a discussion of its preliminary permitting strategy for implementing the NPDES storm water program.

The preliminary strategy is intended to establish a framework for developing permitting priorities, and includes a four tier set of priorities for issuing permits to be implemented over time:

- Tier I—baseline permitting: One or more general permits will be developed to initially cover the majority of storm water discharges associated with industrial activity;
- Tier II—watershed permitting: Facilities within watersheds shown to be adversely impacted by storm water discharges associated with industrial activity will be targeted for permitting.
- Tier III—industry specific permitting: Specific industry categories will be targeted for individual or industry-specific permits; and
- Tier IV—facility specific permitting: A variety of factors will be used to target specific facilities for individual permits.

Tier I—Baseline Permitting

EPA intends to issue general permits that initially cover the majority of storm water discharges associated with industrial activity in States without authorized NPDES programs. These permits will also serve as models for States with authorized NPDES programs.

The consolidation of many sources under one permit will greatly reduce the otherwise overwhelming administrative burden associated with permitting storm water discharges associated with industrial activity. This approach has a number of additional advantages, including:

- Requirements will be established for discharges covered by the permit;
- Facilities whose discharges are covered by the permit will have an opportunity for substantial compliance with the CWA;
- The public, including municipal operators of municipal separate storm sewers which may receive storm water discharges associated with industrial activity, will have access under section 308(b) of the CWA to monitoring data and certain other information developed by the permittee;
- EPA will have the opportunity to begin to collect and review data on storm water discharges from priority industries, thereby supporting the development of subsequent permitting activities;
- Applicable requirements of municipal storm water management programs established in permits for discharges from municipal separate storm sewer systems will be enforceable directly against non-complying industrial facilities that generate the discharges;
- The public will be given an opportunity to comment on permitting activities;

- The baseline permits will provide a basis for bringing selected enforcement actions by eliminating many issues which might otherwise arise in an enforcement proceeding; and

- Finally, the baseline permits will provide a focus for public comment on the development of subsequent phases of the permitting strategy for storm water discharges, including the development of priorities for State storm water management programs developed under section 402(p)(6) of the CWA.

Initially, the coverage of the baseline permits will be broad, but the coverage is intended to shrink as other permits are issued for storm water discharges associated with industrial activities pursuant to Tier II through IV activities.

2. Tier II—Watershed Permitting

Facilities within watersheds shown to be adversely impacted by storm water discharges associated with industrial activity will be targeted for individual and general permitting. This process can be initiated by identifying receiving waters (or segments of receiving waters) where storm water discharges associated with industrial activity have been identified as a source of use impairment or are suspected to be contributing to use impairment.

3. Tier III—Industry Specific Permitting

Specific industry categories will be targeted for individual or industry-specific general permits. These permits will allow permitting authorities to focus attention and resources on industry categories of particular concern and/or industry categories where tailored requirements are appropriate. EPA will work with the States to coordinate the development of model permits for selected classes of industrial storm water discharges. EPA is also working to identify priority industrial categories in the two reports to Congress required under section 402(p)(5) of the CWA. In addition, group applications that are received can be used to develop model permits for the appropriate industries.

***48003 4. Tier IV—Facility Specific Permitting**

Individual permits will be appropriate for some storm water discharges in addition to those identified under Tier II and III activities. Individual permits should be issued where warranted by: the pollution potential of the discharge; the need for individual control mechanisms; and in cases where reduced administrative burdens exist. For example, individual NPDES permits for facilities with process discharges should be expanded during the normal process of permit reissuance to cover storm water discharges from the facility.

5. Relationship of Strategy to Permit Applications Requirements

The preliminary long-term permitting strategy described above identifies several permit schemes that EPA anticipates will be used in addressing storm water discharges associated with industrial activity. One issue that arises with this strategy is determining the appropriate information needed to develop and issue permits for these discharges. The NPDES regulatory scheme provides three major options for obtaining permit coverage for storm water discharges associated with industrial activity: (1) Individual permit applications; (2) group applications; and (3) case-by-case requirements developed for general permit coverage.

a. Individual permit application requirements. Today's notice establishes requirements for individual permit applications for storm water discharges associated with industrial activity. These application requirements are applicable for all storm water discharges associated with industrial activity, except where the operator of the discharge is participating in a group application or a general permit is issued to cover the discharge and the general permit provides alternative means to obtain permit coverage. Information in individual applications is intended to be used in developing the site-specific conditions generally associated with individual permits.

Individual permit applications are expected to play an important role in all tiers of the Strategy, even where general permits are used. Although general permits may provide for notification requirements that operate in lieu of the requirement to submit individual permit applications, the individual permit applications may be needed under several circumstances. Examples include: where a general permit requires the submission of a permit application as the notice of intent to be covered by the permit; where the owner or operator authorized by a general permit requests to be excluded from the coverage of the general

permit by applying for a permit (see 40 CFR 122.28(b)(2)(iii) for EPA issued general permits); and where the Director requires an owner or operator authorized by a general permit to apply for an individual permit (see 40 CFR 122.28(b)(2)(ii) for EPA issued general permits).

b. Group applications. Today's rule also promulgates requirements for group applications for storm water discharges associated with industrial activity. These applications provide participants of groups with sufficiently similar storm water discharges an alternative mechanism for applying for permit coverage.

The group application requirements are primarily intended to provide information for developing industry specific general permits. (Group applications can also be used to issue individual permits in authorized NPDES States without general permit authority or where otherwise appropriate). As such, group application requirements correlate well with the Tier III permitting activities identified in the long-term permitting Strategy.

c. Case-by-case requirements. 40 CFR 122.21(a) excludes persons covered by general permits from requirements to submit individual permit applications. Further, the general permit regulations at 40 CFR 122.28 do not address the issue of how a potential permittee is to apply to be covered under a general permit. Rather, conditions for notification of intent (NOI) to be covered by the general permit are established in the permits on a case-by-case basis, and operate in lieu of permit application requirements. Requirements for submitting NOIs to be covered by a general permit can range from full applications (this would be Form 1 and Form 2F for most discharges composed entirely of storm water discharges associated with industrial activity), to no notice. EPA recommends that the NOI requirements established in a general permit for storm water discharges associated with industrial activity be commensurate with the needs of the permit writer in establishing the permit and the permit program. The baseline general permit described in Tier I is intended to support the development of controls for storm water discharges associated with industrial activity that can be supported by the limited resources of the permitting Agency. In this regard, the burdens of receiving and reviewing NOIs from the large number of facilities covered by the permit should also be considered when developing NOI requirements. In addition, NOI requirements should be developed in conjunction with permit conditions establishing reporting requirements during the term of the permit.

NOI requirements in general permits can establish a mechanism which can be used to establish a clear accounting of the number of permittees covered by the general permit, the nature of operations at the facility generating the discharge, their identity and location. The NOI can be used as an initial screening tool to determine discharges where individual permits are appropriate. Also, the NOI can be used to identify classes of discharges appropriate for more specific general permits, as well as provide information needed to notify such dischargers of the issuance of a more specific general permit. In addition, the NOI can provide for the identification of the permittee to provide a basis for enforcement and compliance monitoring strategies. EPA will further address this issue in the context of specific general permits it plans to issue in the near future.

Today's rule requires that individual permit applications for storm water discharges associated with industrial activity be submitted within one year from the date of publication of this notice. EPA is considering issuing general permits for the majority of storm water discharges associated with industrial activity in those States and territories that do not have authorized State NPDES programs (MA, ME, NH, FL, LA, TX, OK, NM, SD, AZ, AK, ID, District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territory of the Pacific Islands) before that date to enable industrial dischargers of storm water to ascertain whether they are eligible for coverage under a general permit (and subject to any alternative notification requirements established by the general permit in lieu of the individual permit application requirements of today's rule) or whether they must submit an individual permit application (or participate in a group application) before the regulatory deadlines for submitting these applications passes. Storm water application deadlines are discussed in further detail below.

E. Storm Water Discharge Sampling

Storm water discharges are intermittent by their nature, and pollutant concentrations in storm water discharges will be highly variable. Not only will variability arise between given events, but the flow and pollutant concentrations of such discharges will vary with time during an event. This variability raises two technical problems: how best to characterize the

discharge associated with a single storm event; and how best to characterize the variability between discharges of different events that may be caused by seasonal changes and changes in material management practices, for example.

Prior to today's rulemaking, 40 CFR 122.21(g)(7) required that applicants for NPDES permits submit quantitative data based on one grab sample taken every hour of the discharge for the first four hours of discharge. EPA has modified this requirement such that, instead of collecting and analyzing four grab samples individually, applicants for permits addressing storm water discharges associated with industrial activity will provide data as indicators of two sets of conditions: data collected during the first 30 minutes of discharge and flow-weighted average storm event concentrations. Large and medium municipalities will provide data on flow-weighted average storm event concentrations only.

Data describing pollutants in a grab sample taken during the first few minutes of the discharge can often be used as a screen for non-storm water discharges to separate storm sewers because such pollutants may be flushed out of the system during the initial portion of the discharge. In addition, data from the first few minutes of a discharge are useful because much of the traditional structural technology used to control storm water discharges, including detention and retention devices, may only provide controls for the first portion of the discharge, with relatively little or no control for the remainder of the discharge. Data from the first portion of the discharge will give an indication of the potential usefulness of these techniques to reduce pollutants in storm water discharges. Also, such discharges may be primarily responsible for pollutant shocks to the ecosystem in receiving waters.

Studies such as NURP have shown that flow-weighted average concentrations of storm water discharges are useful for estimating pollutant loads and for evaluating certain concentration-based water quality impacts. The use of flow-weighted composite samples are also consistent with comments raised by various industry representatives during previous Agency rulemakings that continuous monitoring of discharges from storm events is necessary to adequately characterize such discharges.

EPA requested comment on the feasibility of the proposed modification of sampling procedures at § 122.21(g)(7) and the ability to characterize pollutants in storm water discharges with an average concentration from the first portion of the discharge compared to collecting and separately analyzing four grab samples. It was proposed that an event composite sample be collected, as well as a grab sample collected during the first 20 minutes of runoff. Comments were solicited as to whether or not this sampling method would provide better definition of the storm load for runoff characterization than would the requirement to collect and separately analyze four grab samples.

Many commenters questioned the ability to obtain a 20 minute sample in the absence of automatic samplers. Some believed that pollutants measured by such a sample can be accounted for in the event composite sample. Others argued that this is an unwarranted sampling effort if municipal storm water management plans are to be geared to achieving annual pollutant load reductions. Many commenters advised that problems accessing sampling stations and mobilizing sampling crews, particularly after working hours, made sampling during the first 20 minutes impractical. These comments were made particularly with respect to municipalities, where the geographical areas could encompass several hundred square miles. Several alternatives were suggested including: the collection of a sample in the first hour, and representative grab sampling in the next three hours, one per hour; or perform time proportioned sampling for up to four hours.

Because of the logistical problems associated with collecting samples during the first few minutes of discharge from municipal systems, EPA will only require such sampling from industrial facilities. Municipal systems will be spread out over many square miles with sampling locations potentially several miles from public works departments or other responsible government agencies. Reaching such locations in order to obtain samples during the first few minutes of a storm event may prove impossible. For essentially the same reasons, the requirement has been modified to encompass the first 30 minutes of the discharge, instead of 20 minutes, for industrial discharges. The rule also clarifies that the sample should be taken during the first 30 minutes or as soon thereafter as practicable. Where appropriate, characterization of this portion of the discharge from selected outfalls or sampling points may be a condition to permits issued to municipalities. With regard to protocols for the collection of sample aliquots for flow-weighted composite samples, § 122.21(g)(7) provides that municipal applicants may collect flow-weighted composite samples using different protocols with respect to the time duration between the collection of sample aliquots, subject

to the approval of the Director or Regional Administrator. In other words, the period may be extended from 15 minutes to 20 or 25 minutes between sample aliquots, or decreased from 15 to 10 or 5 minutes.

Other comments raised issues that apply both to the impact of runoff characterization and the first discharge representation. These primarily pertained to regions that have well defined wet and dry seasons. Comments questioned whether or not it is fair to assume that the initial storm or two of a wet season, which will have very high pollutant concentrations, are actually representative of the runoff concentrations for the area.

In response, EPA believes that it is important to represent the first part of the discharge either separately or as a part of the event composite samples. This loading is made up primarily of the mass of unattached fine particulates and readily soluble surface load that accumulates between storms. This load washes off of the basin's directly connected paved surfaces when the runoff velocities reach the level required for entrainment of the particulate load into the surface flow. It should be noted that for very fine particulates and solubles, this can occur very soon after the storm begins and much sooner than the peak flow. The first few minutes of discharge represents a shock load to the receiving water, in terms of concentration of pollutants, because for many constituents the highest concentrations of the event will occur during this initial period. Due to the need to properly quantify this load, it is not necessary to represent the first discharge from the upper reaches of the outfall's tributary area. In runoff characterization basins, the assumption is that the land use in the basin is homogeneous, or nearly so, and that the first discharge from the lower reaches for all intents and purposes is representative of the entire basin. If a sample is taken during the first 30 minutes of the runoff, it will be composed primarily of first discharge. If the sample is taken at the outfall an hour into the event, it may contain discharge from the remote portions of the basin. It will not be representative of the discharge because it will also contain later washoff from the lower reaches of the basin, resulting in a low estimation of the first discharge load of most constituents. Conversely, larger suspended particulates that normally are not present in first discharge due to inadequate velocities will appear in this later sampling scenario because of the influence of higher runoff rates in the lower basin. Many commonly used management practices are designed based on their ability to treat a volume of water defined by the first discharge phenomenon. It is important to characterize the first discharge load because most management practices effectively treat only, or primarily, this load.

It should be noted that first discharge runoff is sometimes contaminated by non-storm water related pollutants. In many urban catchments, contaminants that result from illicit connections and illegal dumping may be stored in the system until "flushed" during the initial storm period. This does not negate the need for information on the characteristic first discharge load, but does indicate that the first phase field screen results for illicit connections should be used to help define those outfalls where this problem might exist.

Several methods can be used to develop an event average concentration. Either automatic or manual sampling techniques can be used that sample the entire hydrograph, or at least the first four hours of it, that will result in several discrete samples and associated flow rates that represent the various flow regimes of an event. These procedures have the potential for providing either an event average concentration, an event mean concentration, or discrete definition of the washoff process. Automatic sampling procedures are also available that collect a single composite sample, either on a time-proportioned or flow proportioned basis.

When discrete samples are collected, an event average composite sample can be produced by the manual composite of the discrete samples in equal volumes. Laboratory analysis of time proportioned composite samples will directly yield the event average concentration. Mathematical averaging of discrete sample analysis results will yield an event average concentration.

When discrete samples are collected, a flow-weighted composite sample can be produced based on the discharge record. This is done by manually flow proportioning the volumes of the individual samples. Laboratory analysis of flow weighted composite samples will directly yield an event mean concentration. Mathematical integration of the change in concentrations and mass flux of the discharge for discrete sample data can produce an event mean concentration. This procedure was used during the NURP program.

EPA wishes to emphasize that the reason for sampling the type of storm event identified in § 122.21(g)(7) is to provide information that represents local conditions that will be used to create sound storm water management plans. Based on the method to be used to generate system-wide estimates of pollutant loads, either method, discrete or event average concentrations,

may be preferable to the other. If simulation models will be used to generate loading estimates, analysis of discrete samples will be more valuable so that calibration of water quality and hydrology may be performed. On the other hand, simple estimation methods based on event average or event mean concentrations may not justify the additional cost of discrete sample analysis.

EPA believes that the first discharge loading should be represented in the permit application from industrial facilities and, if appropriate, permitting authorities may require the same in the discharge characterization component of permits issued to municipalities. The first discharge load should also be represented as part of an event composite sample. This requirement will assist industries in the development of effective storm water management plans.

EPA requested comments on the appropriateness of the proposed rules and of proposed amendments to the rules regarding discharge sampling. Comments were received which addressed the appropriateness of imposing uniform national guidelines. Several commenters are concerned that uniform national guidelines may not be appropriate due to the geographic variations in meteorology, topography, and pollutant sources. While some assert that a uniform guideline will provide consistency of the sample results, others prefer a program based on regional or State guidelines that more specifically address their situation.

Several commenters, addressing industrial permit application requirements, preferred that the owner/operator be allowed to set an individual sampling protocol with approval of the permit writer. Some commenters were concerned that one event may not be sufficient to characterize runoff from a basin as this may result in gross over-estimation or underestimation of the pollutant loads. Others indicated confusion with regard to sampling procedures, lab analysis procedures, and the purpose of the program.

In response, today's regulations establish certain minimum requirements. Municipalities and industries may vary from these requirements to the extent that their implementation is at least as stringent as outlined in today's rule. EPA views today's rule as a means to provide assurance as to the quality of the data collected; and to this end, it is important that the minimum level of sampling required be well defined.

In response to EPA's proposal that the first discharge be included in "representative" storm sampling, several commenters made their concerns known about the possible equipment necessary to meet this requirement. Several commenters are concerned that in order to get a first discharge sample, automatic sampling equipment will be required. Concerns related to the need for this equipment surfaced in the comments frequently; most advised that the equipment is expensive and that the demand on sampling equipment will be too large for suppliers and manufacturers to meet. Although equipment can be leased, some commenters maintained that not enough rental equipment is available to make this a viable option in many instances.

EPA is not promoting or requiring the use of automated equipment to satisfy the sampling requirements. A community may find that in the long run it would be more convenient to have such equipment since sampling is required not only during preparation of the application, but also may be required during the term of the permit to assure that the program goals are being met. Discharge measurement is necessary in order for the sample data to have any meaning. If unattended automatic sampling is to be performed, then unattended flow measurement will be required too.

EPA realizes that equipment availability is a legitimate concern. However, there is no practical recommendation that can be made relative to the availability of equipment. If automatic sampling equipment is not available, manual sampling is an appropriate alternative.

F. Storm Water Discharges Associated With Industrial Activity

1. Permit Applicability

a. Storm water discharges associated with industrial activity to waters of the United States. Under today's rule dischargers of storm water associated *48006 with industrial activity are required to apply for an NPDES permit. Permits are to be applied for in one of three ways depending on the type of facility: Through the individual permit application process; through the group application process; or through a notice of intent to be covered by general permit.

Storm water discharges associated with the industrial activities identified under § 122.26(b)(14) of today's rule may avail themselves of general permits that EPA intends to propose and promulgate in the near future. The general permit will be available

to be promulgated in each non-NPDES State, following State certification, and as a model for use by NPDES States with general permit authority. It is envisioned that these general permits will provide baseline storm water management practices. For certain categories of industries, specific management practices will be prescribed in addition to the baseline management practices. As information on specific types of industrial activities is developed, other, more industry-specific general permits will be developed.

Today's rule requires facilities with existing NPDES permits for storm water discharges to apply for individual permits under the individual permit application requirements found at 122.26(c) 180 days before their current permit expires. Facilities not eligible for coverage under a general permit are required to file an individual or group permit application in accordance with today's rule. The general permits to be proposed and promulgated will indicate what facilities are eligible for coverage by the general permit.

b. Storm water discharges through municipal storm sewers. As discussed above, many operators of storm water discharges associated with industrial activity are not required to apply for an individual permit or participate in a group application under § 122.26(c) of today's rule if covered by a general permit. Under the December 7, 1988, proposal, dischargers through large and medium municipal separate storm sewer systems were not required, as a general rule, to apply for an individual permit or as a group applicant. Today's rule is a departure from that proposal. Today's rule requires all dischargers through municipal separate storm sewer systems to apply for an individual permit, apply as part of a group application, or seek coverage under a promulgated general permit for storm water discharges associated with industrial activity.

Municipal operators of large and medium municipal separate storm sewer systems are responsible for obtaining system-wide or area permits for their system's discharges. These permits are expected to require that controls be placed on storm water discharges associated with industrial activity which discharge through the municipal system. It is anticipated that general or individual permits covering industrial storm water dischargers to these municipal separate storm sewer systems will require industries to comply with the terms of the permit issued to the municipality, as well other terms specific to the permittee.

c. Storm water discharges through non-municipal storm sewers. Under today's rulemaking all operators of storm water discharges associated with industrial activity that discharge into a privately or Federally owned storm water conveyance (a storm water conveyance that is not a municipal separate storm sewer) will be required to be covered by an NPDES permit (e.g. an individual permit, general permit, or as a co-permittee to a permit issued to the operator of the portion of the system that directly discharges to waters of the United States). This is a departure from the "either/or" approach that EPA requested comments on in the December 7, 1988, notice. The "either/or" approach would have allowed either the system discharges to be covered by a permit issued to the owner/operator of the system segment that discharged to waters of the United States, or by an individual permit issued to each contributor to the non-municipal conveyance.

EPA requested comments on the advantages and disadvantages of retaining the "either/or" approach for non-municipal storm sewers. An abundance of comment was received by EPA on this particular part of the program. A number of industrial commenters and a smaller number of municipalities favored retaining the "either/or" approach as proposed, while most municipal entities, one industry, and one trade association favored requiring permits for each discharger.

Two commenters stated that private owners of conveyances may not have the legal authority to implement controls on discharges through their system and would not want to be held responsible for such controls. EPA agrees that this is a potential problem. Therefore, today's rule will require permit coverage for each storm water discharge associated with industrial activity.

One commenter supported the concept of requiring all the facilities that discharge to a non-municipal conveyance to be co-permittees. EPA agrees that this type of permitting scheme, along with other permit schemes such as area or general permits, is appropriate for discharges from non-municipal sewers, as long as each storm water discharge through the system is associated with industrial activity and thus currently subject to NPDES permit coverage.

One State agency commented that in the interest of uniformity, all industries that discharge to non-municipal conveyances should be required to conform to the application requirements. One industry stated that the rules must provide a way for the

last discharger before the waters of the U.S. to require permits for facilities discharging into the upper portions of the system. EPA agrees with these comments. Today's rule provides that each discharger may be covered under individual permits, as co-permittees to a single permit, or by general permit rather than holding the last discharger to the waters of the United States solely responsible.

In response to one commenter, the term "non-municipal" has been clarified to explain that the term refers to non-publicly owned or Federally-owned storm sewer systems.

Some commenters supporting the approach as proposed, noted that industrial storm water dischargers into such systems can take advantage of the group application process. EPA agrees that in appropriate circumstances, such as when industrial facilities discharging storm water to the same system are sufficiently similar, group applications can be used for discharges to non-municipal conveyances. However, EPA believes that it would be inappropriate to approve group applications for those facilities whose only similarity is that they discharge storm water into the same private conveyance system. The efficacy of the group application procedures is predicated on the similarity of operations and other factors. The fact that several industries discharge storm water to the same non-municipal sewer system alone may not make these discharges sufficiently similar for group application approval.

One commenter suggested that EPA has not established any deadlines for submission of permit applications for storm water discharges associated with industrial activity through non-municipal separate storm sewer systems. EPA wants to clarify that industrial storm water dischargers into privately owned or Federally owned storm water conveyances are required to apply for permits in the same time frame as individual or group applicants (or as otherwise provided for in a general permit).

**48007* One commenter stated that the operator of the conveyance that accepts discharges into its system has control and police power over those that discharge into the system by virtue of the ability to restrict discharges into the system. This commenter stated that these facilities should be the entity required to obtain the permit in all cases. Assuming that this statement is true in all respects, the larger problem is that one's theoretical ability to restrict discharges is not necessarily tied to the reality of enforcing those restrictions or even detecting problem discharges when they exist. In a similar vein one commenter urged that a private operator will not be in any worse a position than a municipal entity to determine who is the source of pollution up-stream. EPA agrees that from a hydrological standpoint this may be true. However, from the standpoint of detection resources, police powers, enforcement remedies, and other facets of municipal power that may be brought to bear upon problem dischargers, private systems are in a far more precarious position with respect to controlling discharges from other private sources.

In light of the comments received, EPA has decided that the either/or approach as proposed is inappropriate. Operators of non-municipal systems will generally be in a poorer position to gain knowledge of pollutants in storm water discharges and to impose controls on storm water discharges from other facilities than will municipal system operators. In addition, best management practices and other site-specific controls are often most appropriate for reducing pollutants in storm water discharges associated with industrial activity and can often only be effectively addressed in a regulatory scheme that holds each industrial facility operator directly responsible. The either/or approach as proposed is not conducive to establishing these types of practices unless each discharger is discharging under a permit. Also, some non-municipal operators of storm water conveyances, which receive storm water runoff from industrial facilities, may not be generating storm water discharges associated with industrial activity themselves and, therefore, they would otherwise not need to obtain a permit prior to October 1, 1992, unless specifically designated under section 402(p)(2)(E). Accordingly, EPA disagrees with comments that dischargers to non-municipal conveyances should have the flexibility to be covered by their permit or covered by the permit issued to the operator of the outfall to waters to the United States.

2. Scope of "Associated with Industrial Activity"

The September 26, 1984, final regulation divided those discharges that met the regulatory definition of storm water point source into two groups. The term Group I storm water discharges was defined in an attempt to identify those storm water discharges which had a higher potential to contribute significantly to environmental impacts. Group I included those discharges that contained storm water drained from an industrial plant or plant associated areas. Other storm water discharges (such as those from parking lots and administrative buildings) located on lands used for industrial activity were classified as Group

II discharges. The regulations defined the term "plant associated areas" by listing several examples of areas that would be associated with industrial activities. However, the resulting definition led to confusion among the regulated community regarding the distinctions between the Group I and Group II classifications.

In amending the CWA in 1987, Congress did not explicitly adopt EPA's regulatory classification of Group I and Group II discharges. Rather, Congress required EPA to address "storm water discharges associated with industrial activity" in the first round of storm water permitting. In light of the adoption of the term "associated with industrial activity" in the CWA, and the ongoing confusion surrounding the previous regulatory definition, EPA has eliminated the regulatory terms "Group I storm water discharge" and "Group II storm water discharge" pursuant to the December 7, 1987, Court remand and has not revived it. In addition, today's notice promulgates a definition of the term "storm water discharge associated with industrial activity" at § 122.26(b)(14) and clarified the scope of the term.

In describing the scope of the term "associated with industrial activity", several members of Congress explained in the legislative history that the term applied if a discharge was "directly related to manufacturing, processing or raw materials storage areas at an industrial plant." (Vol. 132 Cong. Rec. H10932, H10936 (daily ed. October 15, 1986); Vol. 133 Cong. Rec. H176 (daily ed. January 8, 1987)). Several commenters cited this language in arguing for a more expansive or less expansive definition of "associated with industrial activity." EPA believes that the legislative history supports the decision to exclude from the definition of industrial activity, at § 122.26(b)(14) of today's rule, those facilities that are generally classified under the Office of Management and Budget Standard Industrial Classifications (SIC) as wholesale, retail, service, or commercial activities.

Two commenters recommended that all commercial enterprises should be required to obtain a permit under this regulation. Another commenter recommended that all the facilities listed in the December 7, 1988, proposal, including those listed in paragraphs (xi) through (xvi) on page 49432 of the December 7, 1988, proposal, should be included. EPA disagrees since the intent of Congress was to establish a phased and tiered approach to storm water permits, and that only those facilities having discharges associated with industrial activity should be included initially. The studies to be conducted pursuant to section 402(p)(5) will examine sources of pollutants associated with commercial, retail, and other light business activity. If appropriate, additional regulations addressing these sources can be developed under section 402(p)(6) of the CWA. As further discussed below, EPA believes that the facilities identified in paragraphs (xi) through (xvi) are more properly characterized as commercial or retail facilities, rather than industrial facilities.

Today's rule clarifies the regulatory definition of "associated with industrial activity" by adopting the language used in the legislative history and supplementing it with a description of various types of areas that are directly related to an industrial process (e.g., industrial plant yards, immediate access roads and rail lines, drainage ponds, material handling sites, sites used for the application or disposal of process waters, sites used for the storage and maintenance of material handling equipment, and known sites that are presently or have been used in the past for residual treatment, storage or disposal). The agency has also incorporated some of the suggestions offered by the public in comments.

Three commenters suggested that the permit application should focus only on storm water with the potential to come into contact with industrial-related pollutant sources, rather than focusing on how plant areas are utilized. These commenters suggested that facilities that are wholly enclosed or have their operations entirely protected from the elements should not be subject to permit requirements under today's rule. EPA agrees that these comments have merit with regard to certain types of facilities. Today's rule defines the term "storm water discharge associated with ~~48008~~ industrial activity" to include storm water discharges from facilities identified in today's rule at 40 CFR 122.21(b)(14)(xi) (facilities classified as 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, 4221-25) only if:

areas where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery at these facilities are exposed to storm water. Such areas include: material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); 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; material storage areas for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

The critical distinction between the facilities identified at 40 CFR 122.26(b)(14)(xi) and the facilities identified at 40 CFR 122.26(b)(14)(i)-(x) is that the former are not classified as having "storm water discharges associated with industrial activity" unless certain materials or activities are exposed to storm water. Storm water discharges from the latter set of facilities are considered to be "associated with industrial activity" regardless of the actual exposure of these same materials or activities to storm water.

EPA believes this distinction is appropriate because, when considered as a class, most of the activity at the facilities in § 122.26(b)(14)(xi) is undertaken in buildings; emissions from stacks will be minimal or non-existent; the use of unhusd manufacturing and heavy industrial equipment will be minimal; outside material storage, disposal or handling generally will not be a part of the manufacturing process; and generating significant dust or particulates would be atypical. As such, these industries are more akin or comparable to businesses, such as retail, commercial, or service industries, which Congress did not contemplate regulating before October 1, 1992, and storm water discharges from these facilities are not "associated with industrial activity." Thus, these industries will be required to obtain a permit under today's rule only when the manufacturing processes undertaken at such facilities would result in storm water contact with industrial materials associated with the facility.

Industrial categories in § 122.26(b)(14)(xi) all tend to engage in production activities in the manner described in the paragraph above. Facilities under SIC 20 process foods including meats, dairy food, fruit, and flour. Facilities classified under SIC 21 make cigarettes, cigars, chewing tobacco and related products. Under SIC 22, facilities produce yarn, etc., and/or dye and finish fabrics. Facilities under SIC 23 are in the business of producing clothing by cutting and sewing purchased woven or knitted textile products. Facilities under SIC 2434 and 25 are establishments engaged in furniture making. SIC 265 and 267 address facilities that manufacture paper board products. Facilities under SIC 27 perform services such as bookbinding, plate making, and printing. Facilities under SIC 283 manufacture pharmaceuticals and facilities under 285 manufacture paints, varnishes, lacquers, enamels, and allied products. Under SIC 30 establishments manufacture products from plastics and rubber. Those facilities under SIC 31 (except 311), 323, 34 (except 3441), 35, 36, and 37 (except 373) manufacture industrial and commercial metal products, machinery, equipment, computers, electrical equipment, and transportation equipment, and glass products made of purchased glass. Facilities under SIC 38 manufacture scientific and electrical instruments and optical equipment. Those under SIC 39 manufacture a variety of items such as jewelry, silverware, musical instruments, dolls, toys, and athletic goods. SIC 4221-25 are warehousing and storage activities.

In contrast, the facilities identified by SIC 24 (except and 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373 when taken as a group, are expected to have one or many of the following activities, processes occurring on-site: storing raw materials, intermediate products, final products, by-products, waste products, or chemicals outside; smelting; refining; producing significant emissions from stacks or air exhaust systems; loading or unloading chemical or hazardous substances; the use of unhusd manufacturing and heavy industrial equipment; and generating significant dust or particulates. Accordingly, these are classes of facilities which can be viewed as generating storm water discharges associated with industrial activity requiring a permit. Establishments identified under SIC 24 (except 2434) are engaged in operating sawmills, planing mills and other mills engaged in producing lumber and wood basic materials. SIC 26 facilities are paper mills. Under SIC 28, facilities produce basic chemical products by predominantly chemical processes. SIC 29 describes facilities that are engaged in the petroleum industry. Under SIC 311, facilities are engaged in tanning, currying, and finishing hides and skins. Such processes use chemicals such as sulfuric acid and sodium dichromate, and detergents, and a variety of raw and intermediate materials. SIC 32 manufacture glass, clay, stone and concrete products from raw materials in the form quarried and mined stone, clay, and sand. SIC 33 identifies facilities that smelt, refine ferrous and nonferrous metals from ore, pig or scrap, and manufacturing related products. SIC 3441 identifies facilities manufacturing fabricated structural metal. Facilities under SIC 373 engage in ship building and repairing. The permit application requirements for storm water discharges from facilities in these categories are unchanged from the proposal.

Today's rule clarifies that the requirement to apply for a permit applies to storm water discharges from plant areas that are no longer used for industrial activities (if significant materials remain and are exposed to storm water) as well as areas that are

currently being used for industrial activities. EPA would also clarify that all discharges from these areas including those that discharge through municipal separate storm sewers are addressed by this rulemaking.

One commenter questioned the use of the word "or" instead of the word "and" to describe storm water "which is located at an industrial plant 'or' directly related to manufacturing, processing, or raw material storage areas at an industrial plant." The comment expressed the concern that discharges from areas not located at an industrial plant would be subject to permitting by this language and questioned whether this was EPA's intent. EPA agrees that this is a potential source of confusion and has modified this language to reflect the conjunctive instead of the alternative. This change has been made to provide consistency in the rule whereby some areas at industrial plants, such as administrative parking lots which do not have storm water discharges commingled with discharges from manufacturing areas, are not included under this rulemaking.

Two commenters wanted clarification of the term "or process water," in the definition of discharge associated with industrial activity at § 122.26(b)(14). This rulemaking replaces this term with the term "process waste water" which is defined at 40 CFR part 401.

**48009* One commenter took issue with the decision to include drainage ponds, refuse sites, sites for residual treatment, storage, or disposal, as areas associated with industrial activity, because it was the commenter's view that such areas are unconnected with industrial activity. EPA disagrees with this comment. If refuse and other sites are used in conjunction with manufacturing or the by-products of manufacturing they are clearly associated with industrial activity. As noted above, Congress intended to include discharges directly related to manufacturing and processing at industrial plants. EPA is convinced that wastes, refuse, and residuals are the direct result or consequence of manufacturing and processing and, when located or stored at the plant that produces them, are directly related to manufacturing and processing at that plant. Storm water drainage from such areas, especially those areas exposed to the elements (e.g. rainfall) has a high potential for containing pollutants from materials that were used in the manufacturing process at that facility. One commenter supported the inclusion of these areas since many toxins degrade very slowly and the mere passage of time will not eliminate their effects. EPA agrees and finalizes this part of the definition as proposed. One commenter requested clarification of the term "residual" as used in this context. Residual can generally be defined to include material that is remaining subsequent to completion of an industrial process. One commenter noted that the current owner of a facility may not know what areas or sites at a facility were used in this manner in the past. EPA has clarified the definition of discharge associated with industrial activity to include areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. The Agency believes that the current owner will be in a position to establish these facts.

One commenter suggested including material shipping and receiving areas, waste storage and processing areas, manufacturing buildings, storage areas for raw materials, supplies, intermediates, and finished products, and material handling facilities as additional areas "associated with industrial activity." EPA agrees that this would add clarification to the definition, and has incorporated these areas into the definition at § 122.26(b)(14).

One commenter stated that the language "point source located at an industrial plant" would include outfalls located at the facility that are not owned or operated by the facility, but which are municipal storm sewers on easements granted to a municipality for the conveyance of storm water. EPA agrees that if the industry does not operate the point source then that facility is not required to obtain a permit for that discharge. A point source is a conveyance that discharges pollutants into the waters of the United States. If a facility does not operate that point source, then it would be the responsibility of the municipality to cover it under a permit issued to them. However, if contaminated storm water associated with industrial activity were introduced into that conveyance by that facility, the facility would be subject to permit application requirements as is all industrial storm water discharged through municipal sewers.

EPA disagrees with several comments that road drainage or railroad drainage within a facility should not be covered by the definition. Access roads and rail lines (even those not used for loading and unloading) are areas that are likely to accumulate extraneous material from raw materials, intermediate products and finished products that are used or transported within, or to and from, the facility. These areas will also be repositories for pollutants such as oil and grease from machinery or vehicles using these areas. As such they are related to the industrial activity at facilities. However, the language describing these areas of industrial activity has been clarified to include those access roads and rail lines that are "used or traveled by carriers of raw

materials, manufactured products, waste material, or by-products used or created by the facility.” For the same reasons haul roads (roads dedicated to transportation of industrial products at facilities) and similar extensions are required to be addressed in permit applications. Two industries stated that haul roads and similar extensions should be covered by permits by rule. EPA is not considering the use of a permit by rule mechanism under this regulation, however this issue will be addressed in the section 402(p)(5) reports to Congress and in general permits to be proposed and promulgated in the near future. EPA would note however that facilities with similar operations and storm water concerns that desire to limit administrative burdens associated with permit applications and obtaining permits may want to avail themselves of the group application and/or general permits.

In response to comments, EPA would also like to clarify that it intends the language “immediate access roads” (including haul roads) to refer to roads which are exclusively or primarily dedicated for use by the industrial facility. EPA does not expect facilities to submit permit applications for discharges from public access roads such as state, county, or federal roads such as highways or BLM roads which happen to be used by the facility. Also, some access roads are used to transport bulk samples of raw materials or products (such as prospecting samples from potential mines) in small-scale prior to industrial production. EPA does not intend to require permit applications for access roads to operations which are not yet industrial activities.

EPA does agree with comments made by several industries that undeveloped areas, or areas that do not encompass those described above, should generally not be addressed in the permit application, or a storm water permit, as long as the storm water discharge from these areas is segregated from the storm water discharge associated with the industrial activity at the facility.

Numerous commenters stated that maintenance facilities, if covered, should not be included in the definition. EPA disagrees with this comment. Maintenance facilities will invariably have points of access and egress, and frequently will have outside areas where parts are stored or disposed of. Such areas are locations where oil, grease, solvents and other materials associated with maintenance activities will accumulate. In response to one commenter, such areas are only regulated in the context of those facilities enumerated in the definition at § 122.26(b)(14), and not similar areas of retail or commercial facilities.

Another commenter requested that “storage areas” be more clearly defined. EPA disagrees that this term needs further clarification in the context of this section of the rule. However, in response to one comment, tank farms at industrial facilities are included. Tank farms are in existence to store products and materials created or used by the facility. Accordingly they are directly related to manufacturing processes.

Regarding storage areas, one commenter stated that the regulations should emphasize that only facilities that are not totally enclosed are required to submit permit applications. EPA does not agree with this interpretation since use of the generic term storage area indicates no exceptions for certain physical characteristics. Thus discharges from enclosed storage areas are also covered by today's rule (except as discussed above). EPA also disagrees with one *48010 comment asserting that small outside storage areas of finished products at industrial facilities should be excluded under the definition of associated with industrial activity. EPA believes that such areas are areas associated with industrial activity which Congress intended to be regulated under the CWA. As noted above, the legislative history refers to storage areas, without reference to whether they are covered or uncovered, or of a certain size.

The same language, in the legislative history cited above, was careful to state that the term “associated with industrial activity” does not include storm water “discharges associated with parking lots and administrative and employee buildings.” To accommodate legislative intent, segregated storm water discharges from these areas will not be required to obtain a permit prior to October 1, 1992. Many commenters stated that this was an appropriate method in which to limit the scope of “associated with industrial activity.” However, if a storm water discharge from a parking lot at an industrial facility is mixed with a storm water discharge “associated with industrial activity,” the combined discharge is subject to permit application requirements for storm water discharges associated with industrial activity. EPA disagrees with some commenters who urged that office buildings and administrative parking lots should be covered if they are located at the plant site. EPA agrees with one commenter that inclusion of storm water discharge from these areas would be overstepping Congressional intent unless such are commingled with storm water discharges from the plant site. Several commenters requested that language be incorporated into the rule which establishes that storm water discharges from parking lots and administrative areas not be included in the definition of associated with industrial activity. EPA agrees and has retained language used in the proposal which addresses this distinction.

Storm water discharges from parking lots and administrative buildings along with other discharges from industrial lands that do not meet the regulatory definition of "associated with industrial activity" and that are segregated from such discharges may be required to obtain an NPDES permit prior to October 1, 1992, under certain conditions. For example, large parking facilities, due to their impervious nature may generate large amounts of runoff which may contain significant amounts of oil and grease and heavy metals which may have adverse impacts on receiving waters. The Administrator or NPDES State has the authority under section 402(p)(2)(E) of the amended CWA to require a permit prior to October 1, 1992, by designating storm water discharges such as those from parking lots that are significant contributors of pollutants or contribute to a water quality standard violation. EPA will address storm water discharges from lands used for industrial activity which do not meet the regulatory definition of "associated with industrial activity" in the section 402(p)(5) study to determine the appropriate manner to regulate such discharges.

Several commenters requested clarification that the definition does not include sheet flow or discharged storm water from upstream adjacent facilities that enters the land or comingles with discharge from a facility submitting a permit application. EPA wishes to clarify that operators of facilities are generally responsible for its discharge in its entirety regardless of the initial source of discharge. However, where an upstream source can be identified and permitted, the liability of a downstream facility for other storm water entering that facility may be minimized. Facilities in such circumstances may be required to develop management practices or other run-on/run-off controls, which segregates or otherwise prevents outside runoff from comingling with its storm water discharge. Some commenters expressed concern about other pollutants which may arrive on a facility's premises from rainfall. This comment was made in reference to runoff with a high or low pH. If an applicant has reason to believe that pollutants in its storm water discharge are from such sources, then that needs to be addressed in the permit application and brought to the attention of the permitting authority, which can draft appropriate permit conditions to reflect these circumstances.

EPA requested comments on clarifying the types of facilities that involve industrial activities and generate storm water. EPA preferred basing the clarification, in part, on the use of Standard Industrial Classification (SIC) codes, which have been suggested in comments to prior storm water rulemakings because they are commonly used and accepted and would provide definitions of facilities involved in industrial activity. Several commenters supported the use by EPA of Standard Industrial Classifications for the same reasons identified by EPA as a generally used and understood form of classification. It was also noted that using such a classification would allow targeting for special notification and educational mailings. Three municipalities and three State authorities commented that SICs were appropriate and endorsed their use as a sound basis for determining which industries are covered.

One municipality questioned how SIC classifications will be assigned to particular industries. SICs have descriptions of the type of industrial activity that is engaged in by facilities. Industries will need to assess for themselves whether they are covered by a listed SIC and submit an application accordingly. Another commenter questioned if Federal facilities that do not have an SIC code identification are required to file a permit application. Federal facilities will be required to submit a permit application if they are engaged in an industrial activity that is described under § 122.26(b)(14). The definition of industrial activity incorporates language that requires Federal facilities to submit permit applications in such circumstances. The language has been further clarified to include State and municipal facilities.

EPA requested comments on the scope of the definition (types of facilities addressed) as well as the clarity of regulation. EPA identified the following types of facilities in the proposed regulation as those facilities that would be required to obtain permits for storm water discharges associated with industrial activity:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are also identified under category (xi) of this paragraph). One commenter (a municipality) agreed with EPA that these industries should be addressed in this rulemaking. No other comments were received on this category. EPA agrees with this comment since these facilities are those that Congress has required EPA to examine and regulate under the CWA with respect to process water discharges. The industries in these categories have generally been identified by EPA as the most significant dischargers of process wastewaters

in the country. As such, these facilities are likely to have storm water discharges associated with industrial activity for which permit applications should be required.

One commenter stated that because oil and gas producers are subject to effluent guidelines, EPA is disregarding the intent of Congress to exclude *48011 facilities pursuant to section 402(1). EPA disagrees with this comment. EPA is not prohibited from requiring permit applications from industries with storm water discharge associated with industrial activity. EPA is prohibited only from requiring a permit for oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water that is not contaminated by contact with or has not come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations such discharges. In keeping with this requirement, EPA is requiring permit applications from oil and gas exploration, production, processing, or treatment operations, or transmission facilities that fall into a class of dischargers as described in § 122.26(c)(iii).

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3411, 373 and (xi). Facilities classified as 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, 4221-25. One large municipality and one industry agreed with EPA that facilities covered by these SICs should be covered by this rulemaking. Many commenters, however, took exception to including all or some of these industries. However as noted elsewhere these facilities are appropriate for permit applications.

One commenter stated that within certain SICs industries, such as textile manufacturers use few chemicals and that there is little chance of pollutants in their storm water discharge. EPA agrees that some industries in this category are less likely than others to have storm water discharges that pose significant risks to receiving water quality. However, there are many other activities that are undertaken at these facilities that may result in polluted storm water. Further, the CWA is clear in its mandate to require permit applications for discharges associated with industrial activity. Excluding any of the facilities under these categories, except where the facility manufacturing plant more closely resembles a commercial or retail outlet would be contrary to Congressional intent.

One State questioned the inclusion of facilities identified in SIC codes 20-39 because of their temporary and transient nature or ownership. Agency disagrees that simply because a facility may transfer ownership that storm water quality concerns should be ignored. If constant ownership was a condition precedent to applying for and obtaining a permit, few if any facilities would be subject to this rulemaking.

One State estimated that the proposed definition would lead to permits for 18,000 facilities in its State. Consequently this commenter recommended that the facilities under SIC 20-39 should be limited to those facilities that have to report under section 313 of title III, Superfund Amendments and Reauthorization Act. However, as noted by another commenter, limiting permit requirements to these facilities would be contrary to Congressional intent. While use of chemicals at a facility may be a source of pollution in storm water discharges, other every day activities at an industrial site and associated pollutants such as oil and grease, also contribute to the discharge of pollutants that are to be addressed by the CWA and these regulations. While the number of permit applications may number in the thousands, EPA intends for group applications and general permits to be employed to reduce the administrative burdens as greatly as possible.

Two commenters felt the permit applications should be limited to all entities under SIC 20-39. EPA disagrees that all the industrial activities that need to be addressed fall within these SICs. Discharges from facilities under paragraphs (i) through (xi) such as POTWs, transportation facilities, and hazardous waste facilities, are of an industrial nature and clearly were intended to be addressed before October 1, 1992.

Two commenters stated that SIC 241 should be excluded in that logging is a transitory operation which may occur on a site for only 2-3 weeks once in a 20-30 year period. It was perceived that delays in obtaining permits for such operations could create problems in harvest schedule and mill demand. This commenter stated that runoff from such operations should be controlled by BMPs in effect for such industries and that such a permit would not be practical and would be cost prohibitive.

EPA agrees with the commenter that this provision needs clarification. The existing regulations at 40 CFR 122.27 currently define the scope of the NPDES program with regard to silvicultural activities. 40 CFR 122.27(b)(1) defines the term "silvicultural point source" to mean any 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. Section 122.27(b)(1) also excludes certain sources. The definition of discharge associated with industrial activity does not include activities or facilities that are currently exempt from permitting under NPDES. EPA does not intend to change the scope of 40 CFR 122.27 in this rulemaking. Accordingly, the definition of "storm water discharge associated with industrial activity" does not include sources that may be included under SIC 24, but which are excluded under 40 CFR 122.27. Further, EPA intends to examine the scope of the NPDES silvicultural regulations at 40 CFR 122.27 as it relates to storm water discharges in the course of two studies of storm water discharges required under section 402(p)(5) of the CWA.

In response to one comment, EPA intends that the list of applicable SICs will define and identify what industrial facilities are required to apply. Facilities that warehouse finished products under the same code at a different facility from the site of manufacturing are not required to file a permit application, unless otherwise covered by this rulemaking.

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(l) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990 and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations. Several commenters urged that Congress intended to require permits or permit applications only for the manufacturing sector of the oil and gas industry (or those activities that designated in SIC 20 through 39). EPA disagrees with this argument. The fact that Congress used the language cited above and not the appropriate the SIC definition explicitly does not indicate that a broader definition or less exclusive definition was contemplated. According to these comments, all storm water discharges from oil and gas *48012 exploration and production facilities would be exempt from regulation. However, EPA is convinced that a facility that is engaged in finding and extracting crude oil and natural gas from subsurface formations, separating the oil and gas from formation water, and preparing that crude oil for transportation to a refinery for manufacturing and processing into refined products, will have discharges directly relating to the processing or raw material storage at an industrial plant and are therefore discharges associated with industrial activity.

For further clarification EPA is intending to focus only on those facilities that are in SIC 10-14. Furthermore, in response to several comments, this rulemaking will require permit applications for storm water discharges from currently inactive petroleum related facilities within SIC codes 10-14, if discharges from such facilities meet the requirements as described in section VI.F.7.a. and § 122.26(c)(1)(iii). Inactive facilities will have storm water associated with industrial activity irrespective of whether the activity is ongoing. Congress drew no distinction between active and inactive facilities in the statute or in the legislative history.

(iv) Hazardous waste treatment, storage, or disposal facilities that are operating under interim status or a permit under Subtitle C of the Resource, Conservation and Recovery Act. One commenter believed that all RCRA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) facilities should be specifically identified using SIC codes for further clarification. EPA considers this to be unnecessarily redundant, since the RCRA/CERCLA identification is sufficient.

Several industries asserted that storm water discharge from landfills, dumps, and land application sites, properly closed or otherwise subject to corrective or remedial actions under RCRA, should not be included in the definition. One commenter noted that the runoff from these areas is like runoff from undeveloped areas. One commenter also concluded that landfills, dumps, and land application sites should also be excluded if they are properly maintained under RCRA.

One commenter also rejected the idea of requiring permits from all active and inactive landfills and open dumps that have received any industrial wastes, and subtitle C facilities. This commenter felt that these facilities were already adequately covered under RCRA.

Two industry commenters felt that it would be redundant to have hazardous waste facilities regulated by RCRA and the NPDES storm water program. One felt this was especially so if there are current pretreatment standards.

The Agency disagrees that all activities that may contribute to storm water discharges at RCRA subtitle C facilities are being fully controlled and that requiring NPDES permits for storm water discharges at RCRA subtitle C facilities is redundant. First, the vast majority of permitted hazardous waste management facilities are industrial facilities involved in the manufacture or processing of products for distribution in commerce. Their hazardous waste management activities are incidental to the production-related activities. While RCRA subtitle C regulations impose controls in storm water runoff from hazardous waste management units and require cleanup of releases of hazardous wastes, they generally do not control non-systematic spills or process. These releases, from the process itself or the storage of raw materials or finished products are a potential source of storm water contamination. In addition, RCRA subtitle C (except via corrective action authority) does not address management of "non hazardous" industrial wastes, which nevertheless could also potentially contaminate storm water runoff.

Second, at commercial hazardous waste management facilities, the RCRA subtitle C permitting requirements and management standards do not control all releases of potentially toxic materials. For example, some permitted commercial treatment facilities may store and use chemicals in the treatment of RCRA hazardous wastes. Releases of these treatment chemicals from storage areas are a potential source of storm water contamination.

Finally, many RCRA subtitle C facilities have inactive Solid Waste Management Units (SWMU's) on the facility property. These SWMU's may contain areas on the land surface that are contaminated with hazardous constituents. RCRA requires that hazardous waste management facilities must investigate these areas of potential contamination, and then perform corrective action to remediate any SWMU's that are of concern. However, the corrective action process at these facilities will not be completed for a number of years due to the complexity of the cleanup decisions, and due to the fact that many hazardous waste management facilities do not yet have RCRA permits. Until corrective action has been completed at all such subtitle C facilities, SWMU's are a potential source of storm water contamination that should be addressed under the NPDES program. Finally, under section 1004(27) of RCRA, all point source discharges, including those at RCRA regulated facilities, are to be regulated by the NPDES program. Thus, there is no concern of regulatory overlap, and to the extent that the storm water regulations are effectively implemented, it will help address these units in a way that alleviates the need for expensive corrective action in the future.

(v) Landfills, land application sites, and open dumps that receive or have received industrial wastes and that are subject to regulation under subtitle D of RCRA. EPA received numerous comments supporting the regulation of municipal landfills which receive industrial waste and are subject to regulation under subtitle D of RCRA. EPA agrees with these comments. These industries have significant potential for storm water discharges that can adversely affect receiving water.

Two States argued that landfills should be addressed under the non-point source program. EPA disagrees that the non-point source program is sufficient for addressing these facilities. Further, addressing a class of facilities under the non-point source program does not exempt storm water discharges from these facilities from regulation under NPDES. The CWA requires EPA to promulgate regulations for controlling point source discharges of storm water from industrial facilities. Point sources from landfills consisting of storm water are such discharges requiring an NPDES permit. Several commenters argued that these discharges are adequately addressed by RCRA and that regulating them under this storm water rule would be redundant. However, as discussed above, RCRA expressly does not regulate point source discharges subject to NPDES permits. Given the nature of these facilities and of the material stored or disposed, EPA believes storm water permits are necessary. Similarly EPA rejects the comment that storm water discharges from these facilities are already adequately regulated by State authority. Congress has mandated that storm water discharges associated with industrial activity have an NPDES permit.

One commenter wanted EPA to define by size what landfills are covered. In response, it is the intent of these regulations to require permit applications from all landfills that receive industrial waste. Storm water discharges from such facilities are addressed because of the nature of the material with which the storm water comes in contact. The size of facility *48013 will not dictate what type of waste is exposed to the elements.

One commenter requested that the definition of industrial wastes be clarified. For the purpose of this rule, industrial waste consists of materials delivered to the landfill for disposal and whose origin is any of the facilities described under § 122.26(b) (14) of this regulation.

(vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093. One commenter suggested that the recycling of materials such as paper, glass, plastics, etc., should not be classified as an industrial activity. EPA disagrees that such facilities should be excluded on that basis. These facilities may be considered industrial, as are facilities that manufacture such products absent recycling.

Other facilities exhibit traits that indicate industrial activity. In junkyards, the condition of materials and junked vehicles and the activities occurring on the yard frequently result in significant losses of fluids, which are sources of toxic metals, oil and grease and polychlorinated aromatic hydrocarbons. Weathering of plated and non-plated metal surfaces may result in contributions of toxic metals to storm water. Clearly such facilities cannot be classified as commercial or retail.

One municipality felt that "significant recycling" should be defined or clarified. EPA agrees that the proposed language is ambiguous. It has been clarified to require permit applications from facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093. These SIC codes describe facilities engaged in dismantling, breaking up, sorting, and wholesale distribution of motor vehicles and parts and a variety of other materials. The Agency believes these SIC codes clarify the term significant recycling.

One municipality stated that regulation of these facilities under NPDES would be duplicative if they are publicly owned facilities. One State expressed the view that automobile junkyards, salvage yards could not legitimately be considered industrial activity. As noted above, EPA disagrees with these comments. Facilities that are actively engaged in the storage and recycling of products including metals, oil, rubber, and synthetics are in the business of storing and recycling materials associated with or once used in industrial activity. These activities are not commercial or retail because they are engaged in the dismantling of motors for distribution in wholesale or retail, and the assembling, breaking up, sorting, and wholesale distribution of scrap and waste materials, which EPA views as industrial activity. Further, being a publicly owned facility does not confer non-industrial status.

(vii) Steam electric power generating facilities, including coal handling sites, and onsite and offsite ancillary transformer storage areas. Most of the comments were against requiring permit applications for onsite and offsite ancillary transformer facilities. One commenter stated that these transformers did not leak in storage and if there were leakage problems in handling transformers, such leaks were subject to Federal and State spill clean-up procedures. The same commenter suggested that if EPA required applications from such facilities that it exclude those that have regular inspections, management practices in place, or those that store 50 transformers at any one time.

EPA agrees that such facilities should not be covered by today's rule. As one commenter noted, the Toxic Substances Control Act (TSCA) addresses pollutants associated with transformers that may enter receiving water through storm water discharges. EPA has examined regulations under TSCA and agrees that regulation of storm water discharges from these facilities should be the subject of the studies being performed under section 402(p)(5), rather than regulations established by today's rule. Under TSCA, transformers are required to be stored in a manner that prevents rain water from reaching the stored PCBs or PCB items. 40 CFR 761.65(b)(1)(i). EPA considers transformer storage to be more akin to retail or other light commercial activities, where

items are inventoried in buildings for prolonged periods for use or sale at some point in the future, and where there is no ongoing manufacturing or other industrial activity within the structure.

One commenter stated that this category of industries should be loosened so that all steam electric facilities are addressed—oil fired and nuclear. EPA believes that the language as proposed broadly defines the type of industrial activity addressed without specifying each mode of steam electric production. One commenter noted that the EPA has no authority under the CWA (*Train v. CIPR, Inc.*, 426 U.S. 1 (1976)) to regulate the discharge of source, special nuclear and by-product materials which are regulated under the Atomic Energy Act. EPA agrees permit applications may not address those aspects of such facilities, however the facility in its entirety may not necessarily be exempt. A permit application will be appropriate for discharges from non-exempt categories.

(viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, material handling facilities, equipment cleaning operations or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or which are identified in another subcategory of facilities under EPA's definition of storm water discharges associated with industrial activity. One commenter requested clarification of the terms "vehicle maintenance." Vehicle maintenance refers to the rehabilitation, mechanical repairing, painting, fueling, and lubricating of instrumentalities of transportation located at the described facilities. EPA is declining to write this definition into the regulation however since "vehicle maintenance" should not cause confusion as a descriptive term. One commenter wanted railroad tracks where rail cars are set aside for minor repairs excluded from regulation. In response, if the activity involves any of the above activities then a permit application is required. Train yards where repairs are undertaken are associated with industrial activity. Train yards generally have trains which, in and of themselves, can be classified as heavy industrial equipment. Trains, concentrated in train yards, are diesel fueled, lubricated, and repaired in volumes that connote industrial activity, rather than retail or commercial activity.

One commenter argued that if gasoline stations are not considered for permitting, then all transportation facilities should be exempt. EPA disagrees with the thrust of this comment. Transportation facilities such as bus depots, train yards, taxi stations, and airports are generally larger than individual repair shops, and generally engage in heavier more expansive forms of industrial activity. In keeping with Congressional intent to cover all industrial facilities, permit applications from such facilities are appropriate. In contrast, EPA views gas stations as retail commercial facilities not covered *48014 by this regulation. It should be noted that SIC classifies gas stations as retail.

(ix) POTW lands used for land application treatment technology/sludge disposal, handling or processing areas, and chemical handling and storage areas. One commenter wanted more clarification of the term POTW lands. Another commenter requested clarification of the terms sludge disposal, sludge handling areas, and sludge processing areas. One State recommended that a broader term than POTW should be used. EPA notes that on May 2, 1989, it promulgated NPDES Sewage Sludge Permit Regulations; State Sludge Management Program Requirements at 40 CFR part 501. This regulation identified those facilities that are subject to section 405(f) of the CWA as "treatment works treating domestic sewage."

In response to the above comments, EPA has decided to use this language to define what facilities are required to apply for a storm water permit. Under this rulemaking "treatment works treating domestic sewage," or any other sewage sludge or wastewater treatment device or system used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge, with a design flow of 1.0 mgd or more, or facilities required to have an approved pretreatment program under 40 CFR part 403, will be required to apply for a storm water permit. However, permit applications will not be required to address land where sludge is beneficially reused such as farm lands and home gardens or lands used for sludge management that are not physically located within the confines (offsite facility) of the facility or where sludge is beneficially reused in compliance with section 405 of the Clean Water Act (proposed rules were published on February 6, 1989, at 54 FR 5746). EPA believes that such activity is not "industrial" since it is agricultural or domestic application (non-industrial) unconnected to the facility generating the material.

EPA received many comments on the necessity and appropriateness of requiring permit applications for storm water discharges from POTW lands. It was anticipated by numerous commenters that the above cited sludge regulations would adequately address

storm water discharges from lands where sludge is applied. However, the sewage sludge regulations do not directly address NPDES permit requirements for storm water discharges from POTW lands and related areas to the extent required by today's rulemaking; the regulations cover only permits for use or disposal of sludge. Also, the regulations proposed on February 4, 1989, cover primarily the technical standards for the composition of sewage sludge which is to be used or disposed. They do not include detailed permitting requirements for discharges of storm water from lands where sludge has been applied to the land. To that extent, EPA is not persuaded by these commenters that POTWs and POTW lands should be excluded from these storm water permit application requirements.

Two commenters noted that some States already regulate sludge use or disposal activities substantially and that EPA should refrain from further regulation. EPA disagrees that this is a basis for excluding facilities from Federal requirements. Notwithstanding regulations in existence under State law, EPA is required by the CWA to promulgate regulations for permit application for storm water associated with industrial activity. Under the NPDES program, States are able to promulgate more rigorous requirements. However a minimum level of control is required under Federal law. One commenter also indicated that a State's sludge land application sites must follow a well defined plan to ensure there is no sludge related runoff. Notwithstanding that a State may require storm water controls for sludge land applications, as noted above, EPA is required to promulgate regulations requiring permit applications from appropriate facilities. EPA views facilities such as waste treatment plants that engage in on-site sludge composting, storage of chemicals such as ferric chloride, alum, polymers, and chlorine, and which may experience spills and bubbleovers are suitable candidates for storm water permits. Facilities using such materials are not characteristic of commercial or retail activities. Use and storage of chemicals and the production of material such as sludge, with attendant heavy metals and organics, is activity that is industrial in nature. The size and scope of activities at the facility will determine the extent to which such activities are undertaken and such materials used and produced at the facility. Accordingly, EPA believes limiting the facilities covered under this category to those of 1.0 mgd and those covered under the industrial pretreatment program is appropriate.

To the extent that permit applicants are already required to employ certain management practices regarding storm water, these may be incorporated into permits and permit conditions issued by Federal and State permitting authorities. EPA has selected facilities identified under 40 CFR part 501 (i.e. those with a design flow of 1.0 mgd or more or those required to have an approved pretreatment program) since these facilities will have largest contribution of industrial process discharges. Sludge from such facilities will contain higher concentrations of heavy metal and organic pollutants.

One commenter stated that sludge disposal is a public activity that should be addressed in a public facility's storm water management program under a municipal storm water management program. EPA disagrees. Industrial facilities, whether publicly owned or not, are required to apply for and obtain permits when they are designated as industrial activity.

Another comment stated that a permit should not be required for facilities that collect all runoff on site and treat it at the same POTW. EPA believes that a permit application should be required from such facilities. However, the above practice can be incorporated as a permit condition for such a facility. One commenter stated storm water from sludge and chemical handling areas can be routed through the headworks of the POTW. The agency agrees that this may be an appropriate management practice for POTWs as long as other NPDES regulatory requirements are fulfilled with regard to POTWs.

(x) Construction activities, including clearing, grading and excavation activities except operations that result in the disturbance of less than five acre total land area which are not part of a larger common plan of development or sale. EPA addresses whether these facilities should be covered by today's rule in section VI.F.8.

The December 7, 1988, proposal also requested comments on including the following other categories of discharges in the definition of industrial activities: (xii) Automotive repair shops classified as Standard Industrial Classification 751 or 753; (xiii) Gasoline service stations classified as Standard Industrial Code 5541; (xiv) Lands other than POTW lands (offsite facilities) used for sludge management; (xv) Lumber and building materials retail facilities classified as Standard Industrial Classification 5211; (xvi) Landfills, land application sites, and open dumps that do not receive industrial wastes and that are subject to regulation under subtitle D of RCRA; (xvii) Facilities classified as Standard Industrial Classification 46 (pipelines, except natural gas), and 492 (gas production and distribution); (xviii) Major electrical powerline corridors.

*48015 EPA received numerous comments on whether to require permit applications for these particular facilities. The December 7, 1988, proposal reflected EPA's intent not to require permits for these facilities, but rather to address these facilities in the two studies required by CWA sections 402(p) (5) and (6). After reviewing the comments on this issue, EPA believes that these facilities should be addressed under these sections of the CWA. Most of these facilities are classified as light commercial and retail business establishments, agricultural, facilities where residential or domestic waste is received, or land use activities where there is no manufacturing. It should be noted that although EPA is not requiring the facilities identified as categories (xii) to (xviii), in the December 7, 1988, proposal to apply for a permit application under this rulemaking, such facilities may be designated under section 402(p)(2)(E) of the CWA.

Three commenters recommended that EPA clarify that non-exempt Department of Energy and Department of Defense facilities should be covered by the storm water regulation. The regulation clearly states that Federal Facilities that are engaged in industrial activity (i.e. those activities in § 122.26(b)(14)(i)-(xi)) are required to submit permit applications. Those applying for permits covering Federal facilities should consult the Standard Industrial Classifications for further clarification.

One commenter questioned how EPA intended to regulate municipal facilities engaged in industrial activities. Municipal facilities that are engaged in the type of industrial activity described above and which discharge into waters of the United States or municipal separate storm sewer systems are required to apply for permits. These facilities will be covered in the same manner as other industrial facilities. The fact that they are municipally owned does not in any way exclude them from needing permit applications under this rulemaking.

One commenter suggested exempting those facilities that have total annual sales less than five million dollars or occupy less than five acres of land. Another commenter thought that all minor permittees should be exempt. EPA believes that the quality of storm water and the extent to which discharges impact receiving water is not necessarily related to the size of the facility or the dollar value of its business. What is important in this regard, is the extent to which steps are taken at facilities to curb the quantity and type of material that may pollute storm water discharges from these facilities. Therefore EPA has not excluded facilities from permitting on such a basis. This same commenter stated that the proposed rules should not address facilities with multiple functions (industrial and retail). EPA disagrees. If a facility engages in activity that is defined in paragraphs (i) through (xi) above, it is required to apply for a permit regardless of the fact that it also has a retail element. Such facilities need only submit a permit application for the industrial portion of the facility (as long as storm water from the non-industrial portion is segregated, as discussed above). This commenter also felt that more studies needed to be undertaken to determine the best way to regulate industries. EPA agrees that storm water problems need further study and for that reason EPA has devoted substantial manpower and resources to complete comprehensive studies under section 402(p)(5), while also addressing industrial sources that need immediate attention under this rulemaking.

One commenter requested that EPA give examples of storm water discharges from each of the facilities that have been designated for submitting permit applications. Agency believes that this is unnecessary and impractical since every facility, regardless of the type of industry, will have different terrain, hydrology, weather patterns, management practices and control techniques. However, EPA intends to issue guidance on filing permit applications for storm water discharges from industrial facilities which details how an industry goes about filing an industrial permit and dealing with storm water discharges.

Today's rulemaking for storm water discharges associated with industrial activity at § 122.26(c)(1)(i) includes special conditions for storm water discharges originating from mining operations, oil or gas operations (§ 122.26(c)(1)(iii)), and from the construction operations listed above (§ 122.26(c)(1)(ii)). These requirements are discussed in more detail in section VI.F.7 and section VI.F.9 of today's notice.

3. Individual Application Requirements

Today's rule establishes individual and group permit application requirements for storm water discharges associated with industrial activity. These requirements will address facilities precluded from coverage under the general permits to be proposed and promulgated by EPA in the near future. EPA considers it necessary to obtain the information required in individual permit applications from certain facilities because of the nature of their industrial activity and because of existing institutional

mechanisms for issuing and tracking NPDES permits. Furthermore, some States will not have general permitting authority. Facilities located in such States will be required to submit individual applications or participate in a group application. The following response to comments received on these requirements pertains to these facilities.

Under the September 26, 1984, regulation operators of Group I storm water discharges were required to submit NPDES Form 1 and Form 2C permit applications. In response to post-regulation comments received on that rule, EPA proposed new permit application requirements (March 7, 1985, (50 FR 9362) and August 12, 1985, (50 FR 32548)) which would have decreased the analytical sampling requirements of the Form 2C and provided procedures for group applications. Passage of the WQA in 1987 gave the EPA additional time to consider the appropriate permit application requirements for storm water discharges. On December 7, 1988, application requirements were proposed and numerous comments were received. Based upon these comments, modifications and refinements have been made to the industrial storm water permit application.

Some commenters expressed the view that the permit application requirements are too burdensome, require too much paperwork, are of dubious utility, and focus too greatly on the collection of quantitative data. EPA disagrees. In comparison to prior approaches for permitting storm water discharges and other existing permitting programs, EPA has streamlined the permit application process, limited the quantitative data requirements, and required narrative information that will be used to determine permit conditions that relate to the quality of storm water discharge. To the extent that EPA needs non-quantitative information to develop appropriate permit conditions, EPA disagrees with the view of some commenters that the information required is excessive. In response to comments on earlier rulemakings and a comment received on the December 7, 1988, proposal (stressing that the emphasis should be on site management, rather than monitoring, sampling, and reporting) EPA has shifted the emphasis of the permit application requirements for storm water discharges associated with industrial activity from the existing requirements for collection of *48016 quantitative data (sampling data) in Form 2C towards collection of less quantitative data supplemented by additional information needed for evaluation of the nature of the storm water discharges.

The permit application requirements proposed for storm water discharges reduce the amount of quantitative data required in the permit application and exempt discharges which contain entirely storm water (i.e. contain no other discharge that, without the storm water component, would require an NPDES permit), from certain reporting requirements of Form 2C. The proposed modifications also would exempt applicants for discharges which contain entirely storm water from several non-quantitative information collection provisions currently required in the Form 2C. The proposed modifications would rely more on descriptive information for assessing impacts of the storm water discharge. One commenter proposed that information that the applicant has submitted for other permits be incorporated by reference into the storm water permit application. EPA disagrees that incorporation by reference is appropriate. The permitting authority will need to have this information readily available for evaluating permit application and permit conditions. Furthermore, EPA feels that the applicant is in the best position to provide the information and verify its accuracy. However, if the applicant has such information and it accurately reflects current circumstances, then the applicant can rely on the information for meeting the information requirements of the application. Another commenter suggested that EPA should only require the information in § 122.26(c)(1) (A) and (B) (i.e., the requirement for a topographic map indicating drainage areas and estimate of impervious areas and material management practices). As explained in greater detail below, EPA is convinced that some quantitative data and the other narrative requirements are necessary for developing appropriate permit conditions.

Form 2F addressing permit applications for storm water discharges associated with industrial activity is included in today's final rule. A complete permit application for discharges composed entirely of storm water, will be comprised of Form 2F and Form 1. Operators of discharges which are composed of both storm water and non-storm water will submit, where required, a Form 1, an entire Form 2C (or Form 2D) and Form 2F when applying. In this case, the applicant will provide quantitative data describing the discharge during a storm event in Form 2F and quantitative data describing the discharge during non-storm events in Form 2C. Non-quantitative information reported in the Form 2C will not have to be reported again in the Form 2F.

Under today's rule, Form 2F for storm water discharges associated with industrial activity would not require the submittal of all of the quantitative information required in Form 2C, but would require that quantitative data be submitted for:

- Any pollutant limited in an effluent guideline for an industrial applicant's subcategory;

- Any pollutant listed in the facility's NPDES permit for its process wastewater;
- Oil and grease, TSS, COD, pH, BOD5, total phosphorus, total Kjeldahl nitrogen; nitrate plus nitrite nitrogen; and
- Any information on the discharge required under 40 CFR 122.21(g)(7) (iii) and (iv).

In order to characterize the discharge(s) sampled, applicants need to submit information regarding the storm event(s) that generated the sampled discharge, including the date(s) the sample was taken, flow measurements or estimates of the duration of the storm event(s) sampled, rainfall measurements or estimates from the storm event(s) which generated the sampled runoff, and the duration between the storm event sampled and the end of the previous storm event. Information regarding the storm event(s) sampled is necessary to evaluate whether the discharge(s) sampled was generally representative of other discharges expected to occur during storm events and to characterize the amount and nature of runoff discharges from the site.

One commenter stated that the quantitative information should be limited to those pollutants that are expected to be known to the applicant. EPA believes this would be inappropriate since there will be no way of determining initially whether these pollutants are present despite the expectations of the applicant. Once the data is provided, permits can be drafted which address specific pollutants. This rulemaking requires that the applicant test for oil and grease, COD, pH, BOD5, TSS, total Kjeldahl nitrogen, nitrate plus nitrite nitrogen and total phosphorus. Oil and grease and TSS are a common component of storm water and can have serious impacts on receiving waters. Oxygen demand (COD and BOD5) will help the permitting authority evaluate the oxygen depletion potential of the discharge. BOD5 is the most commonly used indicator of potential oxygen demand. COD is considered a more inclusive indicator of oxygen demand, especially where metals interfere with the BOD5 test. The pH will provide the permitting authority with important information on the potential availability of metals to the receiving flora, fauna and sediment. Total Kjeldahl nitrogen, nitrate plus nitrite nitrogen and total phosphorus are measures of nutrients which can impact water quality. Because this data is useful in developing appropriate permit conditions, EPA disagrees with the argument made by one commenter that quantitative data requirements should be a permit condition and not part of the application process.

In the proposed rule, the Agency used total nitrogen as a parameter. This has been changed to total Kjeldahl nitrogen and nitrate plus nitrite nitrogen for clarity.

Today's rule defines sampling at industrial sites in terms of sampling for those parameters that have effluent limits in existing NPDES permits, as well as for any other conventional or nonconventional parameter that might be expected to be found at the outfall. Comments on the appropriateness of the defined parameters were solicited by the proposal. Numerous commenters maintained that either the parameter list be made industry specific, or that pollutant categories not detected in the initial screen be exempted from further testing. Some suggested that only conventional pollutants, inorganics, and metals be sampled unless reason for others is found.

In terms of specific water quality parameters, it was recommended that surfactants not be tested for unless foam is visible. One commenter also suggested that fecal coliform sampling is inappropriate for industrial permits applications. One commenter favored testing for TOC instead of VOC. In response, VOC has been eliminated from the list of parameters because it will not yield specific usable data. VOC is not specifically required in any sampling in today's rule, except where priority pollutant scans are required.

Some recommended that procedures be modified to facilitate quicker, less expensive lab analyses. Concern was also raised that industry might be required to collect its own rainfall data if there is no nearby observation station. Some commenters stated that EPA should not allow automatic sampling for either biological or oil and grease sampling due to the potential for contamination in sampling equipment.

**48017* In response, EPA believes that the sampling requirements for industry in today's rule are reasonable and not burdensome. These requirements address parameters that have effluent limits in existing NPDES permits, as well as for any other conventional or nonconventional parameter that might be expected to be found at the applicants outfall. Under this procedure both industry-specific and site-specific contaminants are already identified in the existing permit. Whether all these

parameters need to be made a part of any discharge characterization plans, under the terms of the permit, will be a case-by-case determination for the permitting authority. EPA maintains that the test for surfactants (if in effluent guidelines or in the facility's NPDES permit for process water) is justifiable even when a foam is not obvious at the outfall. The presence of detergents in storm water may be indicated by foam, but the absence of foam does not indicate that detergents are not present.

EPA requested comments on fecal coliform as a parameter. Fecal coliform was included on the list as an indicator of the presence of sanitary sewage. In large concentrations, fecal coliform may be an effective indicator of sanitary sewage as opposed to other animal wastes. EPA believes that sanitary cross connections will also be found at industrial facilities. Furthermore, the test for fecal coliform is an inexpensive test and its inclusion or exclusion should make little impact financially on the individual application costs. Sampling for volatile organic carbon shall be accomplished when required, as it is an appropriate indicator of industrial solvents and organic wastes.

In response to comments, EPA acknowledges that there are certain pollutants that are capable of leaving residues in automatic sampling devices that will potentially contaminate subsequent samples. In these cases, such as for biological monitoring, if such a problem is perceived to exist and it is expected that the contaminant will render the subsequent samples unusable, manual grab samples may be needed. This would include grab samples for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus. EPA is not disallowing the use of automatic sampling because of possible contamination, as this type of sampling may be the best method for obtaining the necessary samples from a selected storm events.

In addition to the conventional pollutants listed above, this final rule requires applicants, when appropriate, to sample other pollutants based on a consideration of site-specific factors. These parameters account for pollutants associated with materials used for production and maintenance, finished products, waste products and non-process materials such as fertilizers and pesticides that may be present at a facility. Applicants must sample for any pollutant limited in an effluent guideline applicable to the facility or limited in the facility's NPDES permit. These pollutants will generally be associated with the facility's manufacturing process or wastes. Other process and non-process related pollutants, will be addressed by complying with the requirements of 40 CFR 122.21(g)(7) (iii) and (iv).

Section 122.21(g)(7)(iii) requires applicants to indicate whether they know or have reason to believe that any pollutant listed in Table IV (conventional and nonconventional pollutants) of appendix D to 40 CFR part 122 is discharged. If such a pollutant is either directly limited or indirectly limited by the terms of the applicant's existing NPDES permit through limitations on an indicator parameter, the applicant must report quantitative data. For pollutants that are not contained in an effluent limitations guideline, the applicant must either report quantitative data or describe the reasons the pollutant is expected to be discharged. With regard to pollutants listed in Table II (organic pollutants) or Table III (metals, cyanide and total phenol) of appendix D, the applicant must indicate whether they know or have reason to believe such pollutants are discharged from each outfall and, if they are discharged in amounts greater than 10 parts per billion (ppb), the applicant must report quantitative data. An applicant qualifying as a small business under 40 CFR 122.21(g)(8), (e.g., coal mines with a probable total annual production of less than 100,000 tons per year or, for all other applicants, gross total annual sales averaging less than \$100,000 per year (in second quarter 1980 dollars)), is not required to analyze for pollutants listed in Table II of appendix D (the organic toxic pollutants).

Section 122.21(g)(7)(iv) requires applicants to indicate whether they know or have reason to believe that any pollutant in Table V of appendix D to 40 CFR part 122 (certain hazardous substances) is discharged. For every pollutant expected to be discharged, the applicant must briefly describe the reasons the pollutant is expected to be discharged and report any existing quantitative data it has for the pollutant.

When collecting data for permit applications, applicants may make use of 40 CFR 122.21(g)(7), which provides that "when an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also applies to the substantially identical outfalls." Where the facility has availed itself of this provision, an explanation of why the untested outfalls are "substantially identical" to tested outfalls must be provided in the application. Where the amount of flow associated with the outfalls with substantially identical effluent differs, measurements or estimates of the total flow of each of the outfalls must be provided. Several commenters stated that the time and expense associated with sampling and analysis would be saved if the applicant was able to pick substantially identical outfalls without

prior approval of the permitting authority. EPA disagrees that this would be an appropriate devolution of authority to the permit applicant. The permitting authority needs to ensure that these outfalls have been grouped according to appropriate criteria (for example do the outfalls serve similar drainage areas at the facility). Furthermore, EPA is not requiring that the permit applicant engage in sampling to demonstrate that the outfalls are indeed substantially identical, because that would of course defeat the purpose of § 122.21(g)(7). The procedure for establishing identical outfalls is not that onerous and provides a means for industry to save substantially on time and resources for sampling.

EPA proposed and requested comment on a requirement that the facility must sample a storm event that is typical for the area in terms of duration and severity. The storm event must be greater than 0.1 inches and must be at least 96 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. In general, variance of the parameters (such as the duration of the event and the total rainfall of the event) should not exceed 50 percent from the parameters of the average rainfall event in that area. EPA also requested comments on addressing snow melt events under this definition.

Commenters stated that: median or average rainfall is not an acceptable approach; the minimum depth and duration of rainfall must be specified; the allowable 50% variation is questionable; the total depth of the storm is irrelevant; and the storm should be viewed based on the average intensity of the storm. One commenter *48018 suggested that using the median rainfall event would be a better approach than the average rainfall event.

Others insisted that "representative" or typical storms do not exist in semi-arid climates and that representative rainfall must be site-specific (regional) and seasonal. Several commenters contended that the requirement for 96 dry hours between events is not acceptable, with 48 and 72 hours identified as possible alternatives.

One commenter believed that a typical standard design storm, such as the 1-year, 24-hour, or 10-year, 1-hour, would be preferable. Another commenter felt that the storm event should be based on the rainfall required to generate a minimum discharge level. One commenter questioned whether the storm is to be sampled at all sites simultaneously.

To clarify its decision on what storm event should be sampled, EPA notes that its selection of the storm event considers both regional and seasonal variation of precipitation. This is evidenced in the rule with regard to sites in the municipal application (three events sampled), and in the requirements for industrial group applications (a minimum of two applicants, or one applicant in groups of less than 10, to be represented in each precipitation zone (see section VI.F.4 below).

The definition of a 0.1 inch minimum was determined by NURP and other studies to be the minimum rainfall depth capable of producing the rainfall/runoff characteristics necessary to generate a sufficient volume of runoff for meaningful sample analysis. EPA believes by requiring the average storm to be used as the basis for sampling that depth, duration, and therefore average rainfall intensity are being regionally defined. The Agency has also added the option of using the median rainfall event instead of the average. The potential for monitoring events that may not meet this specification should be minimized by allowing the proposed 50 percent variation in rainfall depth and/or duration from event statistics. However, the 50 percent variation need only be met when possible. Further, there is flexibility in the rule where the Director may allow or establish site specific requirements such as the minimum duration between the previous measurable storm event and the storm event sampled, the amount of precipitation from the storm event to be sampled, and the form of precipitation sampled (snowmelt or rainfall). If data is obtained from a rain event that does not meet the criteria above, the Director has the discretion to accept the data as valid.

The December 7, 1988, proposal called for a 96-hour period between events of measurable rainfall, here defined as 0.1 inch, which provided a four day minimum for the accumulation of pollutants on the surface of the outfalls' tributary areas. The key word in the definition is "measurable", which means that the 96-hour period did not necessarily have to be dry, only that no cleansing rainfall (i.e. 0.1 inch rain event) has occurred. However, after reviewing comments on this issue EPA has decided to change the period to 72 hours. Many commenters indicated that 96 hours is too restrictive and that securing a sample under such circumstances would be unnecessarily difficult. EPA agrees that the quality or representativeness of the sample would not be adversely affected by this change.

EPA does not agree with comments that the requirement of a particular "design" storm would be appropriate. Many commenters have expressed concern that they might sample an event not meeting the requirements for industrial group applications as defined. Because there is no way to know with sufficient certainty beforehand that an upcoming event will approximate a one-year, twenty-four hour storm, many events would be unnecessarily sampled before this event is realized.

EPA does not intend that a municipality or industry be required to sample all required outfalls for a single storm. This would represent a unmanageable investment in equipment and manpower. In some areas, it may be necessary to sample multiple sites for a single event due to the irregularity of rainfall, but not all sites.

EPA described parameters for selecting storm events for sampling of municipal and industrial outfalls in the December 7, 1988, proposal. EPA has received several comments regarding the problems that rainfall measurement in general presents. A recurring comment relative to reporting rainfall, and in verifying that the storm itself is representative, deals with the spatial distribution of rainfall. The rainfall measured at an airport does not always represent rainfall at the site, particularly in summer months when thunderstorms are prevalent. One commenter stated that it would be easier to base the selected storm on either a minimum discharge, or on a discharge duration other than on the total precipitation, because these parameters are easily measured at the site and are not dependent on the airport gauges receiving the same rainfall as the site. A few commenters questioned how to determine typical storm characteristics. One commenter advised that NOAA rainfall reporting stations provide data that represent only daily rainfall totals, not storm event data. One commenter pointed out that the time frame of the sampling requirement does not consider that a particular region may be in the midst of a multi-year drought cycle, and that what little rainfall occurs may have uncharacteristically high levels of pollutants.

The type of rain event sampled is an important parameter in any attempt to characterize system-wide loads based on the sampling results. Rainfall gauges that report only event total depth will provide the information necessary to characterize most events, provided that a reasonable estimate of the event duration can be made. If simulation models are to be used in estimating system-wide loads, rainfall measurement based on time and depth of rainfall will be needed. If the recording stations are not believed to accurately reflect this distribution, then the data will need to be collected by the applicant at a location central to the tributary area of the outfall.

The rainfall data collected by NOAA are in most cases available in the form of hourly rainfall depths. This information can be analyzed to develop characteristic storm depths and durations. In some cases, this information has already been analyzed for many long term reporting stations by various municipalities, states, and universities. The results of these investigations should be available to the applicants.

EPA realizes that prolonged rainless periods occur for both semi-arid areas and areas experiencing droughts and that the first storm after a prolonged dry period may well not be representative of "normal" runoff conditions. In order for the appropriate system-wide characterization of loads to be made, data must be collected. With regard to the municipal permit application, today's rule states that runoff characterization data will be collected during three events at from five to ten sites. The rule gives the Director the flexibility of modifying these requirements.

EPA has defined the parameters for selecting the storm event to be sampled such that at the discretion of the Director, seasonal, including winter, sampling might be required. EPA has received several comments regarding the problems that snowmelt sampling may present. Several commenters are *48019 opposed to monitoring of snowmelt events. The reasons cited include equipment problems and the unreasonableness of expecting this sampling, because of temperatures and the time required for personnel to be waiting for events. A few comments addressed the issues of snow pack depth, ambient temperature, and solar radiation levels, and that the snow pack may filter suspended solids or refreeze such that final melting is uncharacteristically over-polluted relative to normal conditions. Another commenter contended that it is impossible to manage the melting process and therefore unreasonable to expect controls to be implemented relative to snowmelt. In essence, it is contended that there is no first discharge unless the snow pack depth is low and melts quickly.

A few commenters favor monitoring snowmelt, for precisely the same reason that most oppose it: that the runoff from snowmelt is the most polluted runoff generated in some areas on an annual basis. Where this is the case, sampling snowmelt should be undertaken in order to accurately assess impacts to receiving streams. EPA is confident that in areas where automated sampling cannot be relied upon, grab sampling can probably be performed because the nature of the snowmelt process tends to make the timing of samples less of a problem when compared to typical rainfall events. EPA disagrees that management practices, either at industrial facilities or with regard to municipalities, cannot address snowmelt. Some areas may need to reassess their salt application procedures. In addition retention and detention devices may address snowmelt, as well as erosion controls at construction sites. Thus, obtaining samples of snowmelt is appropriate to allow development of such permit conditions.

Today's rule also modifies the Form 2C requirements by exempting applicants from the requirements at § 122.21(g)(2) (line drawings), (g)(4) (intermittent flows), (g)(7) (i), (ii), and (v) (various sampling requirements to characterize discharges) if the discharge covered by the application is composed entirely of storm water. Permit applications for discharges containing storm water associated with industrial activity would require applicants to provide other non-quantitative information which will aid permit writers to identify which storm water discharges are associated with industrial activity and to characterize the nature of the discharge.

Numerous comments were received regarding the requirement to submit a topographic map and site drainage map. Many of these comments offered alternatives to EPA's proposal. Two commenters suggested that a simple sketch of the site would be sufficient. Two commenters stated that one or the other should be adequate. One commenter believed that the drainage map was a good idea, but that the topographic map should be optional. Several commenters submitted that a topographic map was sufficient and that only SPCC plans or SARA submittals should supplement that. Another commenter argued that information relating to the location of the nearest surface water or drinking wells would be sufficient. Other commenters believed that a drainage map alone would indicate all relevant site specific information. Numerous commenters expressed concern that the drainage area map would be too detailed and that one which depicts the general direction of flow should be sufficient. Clarification was requested on whether the final rule would require the location of any drinking water wells. One commenter stated that a U.S.G.S. 7.5 quadrangle map will not illustrate drainage systems in all cases, and that therefore the requirement should be optional.

Several commenters agreed with EPA's proposal. One commenter maintained that drainage maps should be required from developments greater than three acres and from all individual applicants. Several commenters agreed with EPA's proposal that both maps should be provided, with arrows indicating site drainage and entering and leaving points. It was advised that drainage maps are useful in locating sources of storm water contamination, and it is useful to identify areas and activities which require source controls or remedial action. One commenter recommended that the map should extend far enough offsite to demonstrate how the privately owned system connects to the publicly owned system.

After considering the merits of all the comments and the reasons supporting EPA's proposal, EPA is convinced that a topographic map and a site drainage map are necessary components of the industrial application. Existing permit application regulations at 40 CFR 122.21(f)(7) require all permit applicants to submit as part of Form 1 a topographic map extending one mile beyond the property boundaries of the source depicting: the facility and each intake and discharge structure; each hazardous waste treatment, storage, or disposal facility; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in the map area in public records or otherwise known to the applicant within one-quarter mile of the facility property boundary. (See 47 FR 15304, April 8, 1982.) However, as indicated by the comments the information provided under § 122.21(f)(7) is generally not sufficient by itself for evaluating the nature of storm water discharges associated with industrial activity.

As stated in comments, a drainage map can provide more important site specific information for evaluating the nature of the storm water discharge in comparison to existing requirements, which require a larger map with only general information. The volume of a storm water discharge and the pollutants associated with it will depend on the configuration and activities occurring at the industrial site. One commenter suggested that it would be appropriate to submit an aerial photograph of the site with all the topographic and drainage information superimposed on the photograph. EPA agrees that this may be an appropriate method of providing this information. EPA is not requiring a specific format for submitting this information.

EPA is also requiring that a narrative description be submitted to accompany the drainage map. The narrative will provide a description of on-site features including: existing structures (buildings which cover materials and other material covers; dikes; diversion ditches, etc.) and non-structural controls (employee training, visual inspections, preventive maintenance, and housekeeping measures) that are used to prevent or minimize the potential for release of toxic and hazardous pollutants; a description of significant materials that are currently or in the past have been treated, stored or disposed outside; and the method of treatment, storage or disposal used. The narrative will also include: a description of activities at materials loading and unloading areas; the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied; a description of the soil; and a description of the areas which are predominately responsible for first flush runoff. This requirement is unchanged from the proposal.

Some commenters believed that information on pesticides, herbicides, and fertilizers and similar products is irrelevant, incidental to the facility's production activities, and should not be *48020 addressed by this rulemaking. EPA disagrees. As these materials are applied outside and hence subject to storm events, they are significant sources of pollutants in storm water discharges whether applied in residential or industrial settings. By providing this information in the permit application the permit writer will be able to determine whether such activity is associated with industrial activity and the subject of appropriate permit conditions. Nominal or incidental application of these materials at industrial facilities and non-detects in sampling of storm water discharges for the permit application will result, in most cases, in these materials not being addressed specifically in storm water permits.

Today's rule also requires that permit applicants for storm water discharges associated with industrial activity certify that all of the outfalls covered in the permit application have been tested or evaluated for non-storm water discharges which are not covered by an NPDES permit. (The applicant need not test for nonstorm water if the certification of the plant storm water discharges can be evaluated through the use of schematics or other adequate method). Section 405 of the WQA added section 402(p)(3)(B)(ii) to the CWA to require that permits for municipal separate storm sewers effectively prohibit non-storm water discharges to the storm sewer system. As discussed in part VI.F.7.b of today's preamble, untreated non-storm water discharges to storm sewers can create severe, wide-spread contamination problems and removing such discharges presents opportunities for dramatic improvements in the quality of such discharges. Although section 402(p)(3)(B)(ii) specifically addresses municipal separate storm sewers, EPA believes that illicit non-storm water discharges are as likely to be mixed with storm water at a facility that discharges directly to the waters of the United States as it is at a facility that discharges to a municipal storm sewer. Accordingly, EPA feels that it is appropriate to consider potential non-storm water discharges in permit applications for storm water discharges associated with industrial activity. The certification requirement would not apply to outfalls where storm water is intentionally mixed with process waste water streams which are already identified in and covered by a permit.

This rulemaking requires applicants for individual permits to submit known information regarding the history of significant spills at the facility. Several commenters indicated that the extent to which this information is required should be modified. One commenter stated that the requirement should be limited to those spills that resulted in a complaint or enforcement action. EPA disagrees. EPA believes that significant spills at a facility should generally include releases of oil or hazardous substances in excess of reportable quantities under section 311 of the Clean Water Act (see 40 CFR 110.10 and 40 CFR 117.21) or section 102 of CERCLA (see 40 CFR 302.4). Such a requirement is consistent with these regulations and the perception that such spills are significant enough to mandate the reporting of their occurrence. Some commenters stated that industries have already submitted this information in other contexts and should not be required to have to do it again. For the same reason another commenter felt that submittal of this information represents a waste of manpower and resources. EPA disagrees that requiring this information is unduly burdensome. If this information has already been provided for another purpose it follows that it is readily available to the industrial applicant. Thus, the burden of providing this information cannot be considered undue. Furthermore, the permit authority will need to have this available in order to determine which drainage areas are likely to generate storm water discharges associated with industrial activity, evaluate pollutants of concern, and develop appropriate permit conditions. However, to keep this information requirement within reasonable limits and limited to information already available to individual facilities, EPA has declined to expand the reporting requirements to spills of other materials, such as food as one commenter has suggested. However, EPA has decided to add raw materials used in food processing or production to the list of significant materials.

Materials such as these may find their way into storm water discharges in such quantities that serious water quality impacts occur. These materials may find their way into storm water from transportation vehicles carrying materials into the facility, loading docks, processing areas, storage areas, and disposal sites.

One commenter urged that any information requested should be limited to a period of three years, which is the general NPDES records retention requirement under 40 CFR 122.21(p) and 40 CFR 112.7(d)(8). EPA agrees with this comment and has limited historical information requirements to the 3 years prior to the date the application is submitted. In this manner this regulation will be consistent with records keeping practices under the NPDES and Oil Spill Prevention programs, except sludge programs.

The December 7, 1988, proposal required the applicant to submit a description of each past or present area used for outdoor storage or disposal of significant materials. One commenter felt that the definition of significant material was too imprecise. EPA disagrees that the language should be made more precise by delineating every conceivable material that may add pollutants to storm water. Rather the definition is broad, to encourage permit applicants to list those materials that have the potential to cause water quality impacts. Stating what materials are addressed in meticulous detail may result in potentially harmful materials remaining unconsidered in permits. However, EPA has decided to add "fertilizers, pesticides, and raw materials used in the production or processing of food" to the definition in response to the comment of one State authority that such materials need to be accounted for due to their potential danger to storm water discharge quality. This same commenter recommended that "hazardous chemicals" should be added. EPA agrees, and will delineate those chemicals as "hazardous substances" which are designated under section 101(14) of CERCLA. Further clarification has been added by requiring the listing of any chemical the facility is required to report pursuant to section 313 of title III of SARA.

Another commenter felt that EPA should not require information of past storage of significant materials. EPA agrees that this proposed requirement is overbroad and has limited the time frame to those materials that were stored in areas 3 years or fewer from the date of the permit application. The 3-year limit is consistent with other Agency reporting requirements as discussed above.

One commenter questioned EPA's proposal not to provide for a waiver from the requirement to submit quantitative data if the applicant can demonstrate that it is unnecessary for permit issuance. Another commenter said that a waiver is inappropriate. EPA believes relevant quantitative data are essential to the process, but in this rulemaking the number of pollutants that must be sampled and analyzed is reduced compared to previous regulations. The proposed requirements for quantitative data are limited to pollutants that are appropriate for given *48021 site-specific operations, thereby making a waiver unnecessary.

Although the concept of a waiver is attractive because of the perceived potential reduction in burdens for applicants, EPA believes that because the storm water discharge testing requirements have already been streamlined, a waiver would not in practice provide significant reductions in burden for either applicants or permit issuing authorities. Requirements to provide and verify data demonstrating that a waiver is appropriate for a storm water discharge may prove to be more of a burden to the applicant and the permitting authorities. Establishing such a waiver procedure would be administratively complex and time-consuming for both EPA and the applicants, without any justifiable benefit. Therefore, this rulemaking does not include a waiver provision.

In response to one commenter, EPA wishes to emphasize that if a facility has zero storm water discharge because it is discharging to a detention pond only, a permit application is not required. Only those discharges to the waters of the United States or municipal systems need submit notifications, individual or group permit applications, or notices of intent where applicable. However, if the detention pond overflows or the discharger anticipates that it may overflow, then a permit application should be submitted.

Two commenters agreed with EPA's proposed requirement to have a description of past and present material management practices and controls. EPA believes that this is important information directly relating to the quality of storm water that can be expected at a particular facility and this requirement is retained in today's rule. However, as with other historical information requirements, EPA is limiting past practices to those that occurred within three years of the date that the application is submitted. One commenter argued that past practices should not be considered unless there is evidence that past practices cause current

storm water quality problems. EPA anticipates that the information submitted by the applicant will be used to make this determination and that appropriate permit conditions can be developed accordingly.

One commenter requested clarification on the certification requirement that the data and information in the application is true and complete to the best of the certifying officer's knowledge. This is a fundamental and integral part of all NPDES permit applications. It essentially requires the signatory to assure the permit writer, based upon his or her personal knowledge, that the information has been submitted without a negligent, reckless, or purposeful misrepresentation. EPA intends to interpret this requirement in the same manner for storm water applications as other applications.

4. Group Applications

Today's final rule provides some industries with the option of participating in a group application, in lieu of submitting individual permits. There are several reasons for the group application. First, the group application procedure provides adequate information for issuing permits for certain classes of storm water discharges associated with industrial activity. Second, numerous commenters supported the concept of the group application as a way to reduce the costs and administrative burdens associated with storm water permit applications. Third, group applications will reduce the burden on the regulated community by requiring the submission of quantitative data from only selected members of the group. Fourth, the group application process will reduce the burden on the permit issuing authority by consolidating information for reviewing permit applications and for developing general permits suited to certain industrial groups. Where general permits are not appropriate or cannot be issued, a group application can be used to develop model individual permits, which can significantly reduce the burden of preparing individual permits.

As noted above in today's preamble, EPA intends to promulgate a general permit that will cover many types of industrial activity. Industrial dischargers eligible for such permits will generally be required to seek coverage by submittal of a notice of intent. Facilities that are ineligible for coverage under the general permit will be required to submit an individual permit application or submit a group application. The group application process promulgated today will serve as an important component to implement Tier III of EPA's industrial storm water permitting strategy discussed above. The general permit which EPA intends to promulgate in the near future shall set forth what types of facilities are eligible for coverage.

Some commenters criticized the group application procedure as an abdication of EPA's responsibility to effectively deal with pollutants in storm water discharges. One commenter stated that every facility subject to these regulations should be required to submit quantitative data. In response EPA believes, as do numerous commenters, that the group application procedure is a legitimate and effective way of dealing with a large volume of currently uncontrolled discharges. The only difference between the group application procedure and issuing individual permits based on individual applications is that the quantitative data requirements from individual facilities will be less if certain procedures are followed. EPA is convinced that marked improvements in the process of issuing permits will be achieved when these procedures are followed. Where the storm water discharge from a particular facility is identified as posing a special environmental risk, it can be required to submit individual applications and therefore separate quantitative data. It should also be noted that submittal of a group application does not exempt a facility from submitting quantitative data on its storm water discharge during the term of the permit.

The final rule refines and clarifies some of the requirements of the group application approach set forth in the December 7, 1988 proposal. Several commenters requested that EPA add a provision which would allow a facility that becomes subject to the regulations to "add on" to a group application after that group application has already been submitted. One commenter indicated that some trade associations are prohibited from engaging in an activity which would not apply to all its members, and that an "add on" provision was needed in the event such a prohibition was invoked. Another commenter noted that where a group is particularly large, for example one that consists of several thousand members, that it would be a logistical feat to ensure that all facilities eligible as members of the group are properly identified and listed on the application within the 120 day deadline for submitting part 1A of the application.

EPA believes that a group applicant should have a limited ability to add facilities to the group after part 1A has been submitted and that a provision which allows a group or group representative an unbridled ability to "add on" is impractical for a number of reasons. First, 10% of the facilities must submit quantitative data. Adding facilities after the group has been formed and

approved would change the number of facilities that have to submit quantitative data on behalf of the group. This would result in an unwarranted administrative burden on the reviewing authority, which is in the position of having to examine the quantitative data and determine the appropriateness of group members (and those that are *48022 required to submit quantitative data) within 2 months of receiving part 1 of the group application. Further, during the permit application process permitting authorities will be developing permit conditions for an identified and pre-determined group of facilities. Allowing potentially significant numbers of permit applicants to suddenly inject themselves into a group application could unnecessarily hamper or disrupt the timely development of general and model permits. In addition, if a facility were "added on" the number of facilities having to submit quantitative data may drop below 10%. Thus the facility desiring to "add on" may be put in the position of having to submit the quantitative data themselves, which would clearly defeat the purpose of being a part of the group application. Nevertheless, EPA has added a provision to 122.26(e) which enables facilities to add on to a group application at the discretion of the EPA's Office of Water Enforcement and Permits, and upon a showing of good cause by the group applicant. For the reasons noted above, EPA anticipates this provision will be invoked only in limited cases where good cause is shown. Facilities not properly identified in the group application, and which cannot meet the good cause test will be required to submit individual permit applications. EPA will advise such facilities within 30 days of receiving the request as to whether the facility may add on.

However, the "add on" facility must meet the following requirements: The application for the additional facility is made within 15 months of the final rule; and the addition of the facility does not reduce the percentage of the facilities that are required to submit quantitative data to below 10% unless there are over 100 facilities that are submitting quantitative data. Approval to become part of a group application is obtained from the group or the trade association and is certified by a representative of the group; approval for adding on to a group is obtained from the Office of Water Enforcement and Permits.

Several commenters stated that the application requirements for groups are so burdensome that the advantages of the process are undermined. These concerns are addressed in greater detail below. Among the requirements which commenters objected are the requirements to list every group member's company by name and address. EPA is convinced that a condition precedent to approving a group application is at least identifying the members of the group. Without such information it would be impossible to determine if all the facilities are sufficiently similar. EPA disagrees that industries will be dissuaded from using the group application process because the advantages of the process are undermined. Although commenters perceived many burdens associated with individual permit applications, by far the most significant burden identified by the comments is the requirement for obtaining and submitting quantitative data. The group application significantly reduces this burden by requiring only 10% of the facilities to submit quantitative data if the number in the group is over 100. If the number in the group is over 1000, then only 100 of the facilities need submit quantitative information. If group applicants develop cost sharing procedures to reduce the financial and administrative burdens of submitting quantitative data, it is evident that utilizing the group application could save industries as much as 90% on the most economically burdensome aspect of the application.

Several commenters perceived that the group application procedure did not offer them significant savings because under the proposal their particular industry would only be required to test for COD, BOD5, pH, TSS, oil and grease, nitrogen, and phosphorous. These commenters stated that sampling for these pollutants is not particularly expensive. EPA believes that even if a group is required only to submit minimal quantitative data on particular pollutants, substantial savings can accrue to a particular industry if the group has many members. This is particularly true when the number of outfalls to be sampled, the information on storm events, and flow measurements are factored into the cost analysis. An additional benefit for members of the group as well as for permit issuing agencies is that the process of developing a permit, including drafting and responding to public comments on the permit, is consolidated by the group application process. Accordingly, it is less resource intensive for the group to work with permit issuance authorities to develop well founded permit conditions.

One commenter raised a concern about the situation where one of the facilities that is designated for submitting quantitative data drops out of the group. If this happened, then another facility would have to submit quantitative data. In response, EPA notes that one approach would be for the group to have one or two more facilities submit quantitative data than needed to avoid problems from such a departure or to account for new additions to the group. Certainly this issue goes directly to the facility selection process which is a critical component of the group application; the facilities need to be carefully selected and reviewed by the group to prevent such difficulties.

Several comments indicated a confusion over what facilities are eligible to take advantage of the group application procedure. Any industry or facility that is required to submit a storm water permit application under these regulations is eligible to participate in a group application. However, whether a facility can obtain a storm water permit under a group application procedure will depend upon whether that facility is a member of the same effluent guideline subcategory, or is sufficiently similar to other members of the group to be appropriate for a general permit or individual permit issued pursuant to the group application. Accordingly, group applications are not limited to national trade associations. The agency believes that the language in § 122.26(c)(2) adequately addresses these concerns. The process does not prohibit a particular company with multiple facilities from filing a group application as long as those facilities are sufficiently similar.

One commenter expressed concern that a single company would not be able to take advantage of the group application benefits unless the company had more than ten facilities. Under such circumstances the company would have to become integrated with a larger group of facilities owned by other companies in order to take advantage of the benefits afforded by the group application procedure. In response, the Agency is providing for a group application of between four and ten members, however at least half the facilities must submit data. One commenter stated that the number of facilities required to submit quantitative data should be determined on a case by case basis. EPA believes that 10 percent for groups with over ten members will be easiest to implement for both industry and EPA, and will ensure that adequate representative quantitative data are obtained so that meaningful determinations of facility similarity can be made and appropriate permit conditions in general or model permits can be developed.

Another commenter suggested that one facility with a multitude of storm water discharge points should be able to use the group permit application to reduce the amount of quantitative data ^{*48023} that it is required to submit. This is an accurate observation but only to the extent that the facility combines with several other facilities to form a group, in which case only 10% of the facilities need submit quantitative data. The group application procedure in today's rule is designed for use by multiple facilities only. However, if an individual facility has 10 outfalls with ten substantially identical effluents the discharger may petition the Director to sample only one of the outfalls, with that data applying to the remaining outfalls. See § 122.21(g)(7). Thus, existing authority already allows for a "group-like" process for sampling a subset of storm water outfalls at a single facility. Concern was expressed that the spill reporting requirement from each facility in part 1B would preclude any group from demonstrating that the facilities sampled are "representative," because the incidence of past spills is very site-specific. EPA notes that since it has dropped the part 1B requirements for other reasons discussed below, this comment is now moot.

Numerous commenters noted that if a facility is part of a group application and is subsequently rejected as a group applicant, such an entity would not have a full year to submit an individual permit application. EPA agrees that this is a significant concern. Accordingly, those facilities that apply as a member of a group application will be afforded a full year from the time they are notified of their rejection as a member of the group to file an individual application. EPA notes that it intends to act on group application requests within 60 days of receipt; thus this approach will only provide facilities that are rejected from a group application a short extension of the deadline for other individual applications.

One commenter complained that the cost of defending a group's choice of representative facilities may exceed the cost of submitting an individual permit application, thereby reducing the incentive to apply as group. The agency anticipates that the selection process will be one open to negotiation between the affected parties and one that will end in a mutually satisfactory group of facilities. It is the intent of EPA to reduce the costs of submitting a permit application as much as possible, while providing adequate information to support permitting activities.

Another commenter argued that the use of model permits will create a disincentive for participating in a group because model permits may be used by the permit issuing authority to issue individual permits for discharges from similar facilities that did not participate in the group application. EPA does not agree. The benefit of applying as a group applicant is to take advantage of reduced representative quantitative data requirements. This incentive will exist regardless of whether or how model permits are used. Further, technology transfer can occur during the development of permits based on individual applications as well as those based on group applications.

One commenter suggested moving some of the facility specific information requirements of part 1 of the group application to part 2 of the group application in order to provide more incentive to apply as a group. EPA has considered this and believes such a change would be inappropriate. Part 1 information will be used to make an informed decision about whether individual facilities are appropriate as group members and appropriate for submitting representative quantitative data. Furthermore, information burdens from providing site specific factors in part 1 is relatively minimal, and the information requirements in the proposed part 1B application have been eliminated.

One commenter suggested that trade associations develop model permits since they have the most knowledge about the characteristics of the industries they represent. As noted above, EPA expects that the industries and trade associations will have input, through the permit application process, as to how permit conditions for storm water discharges are developed. While the applicant can submit proposed permit conditions with any type of application, EPA however cannot delegate the drafting of model permits to the permittees. EPA is developing and publishing guidance in conjunction with this rulemaking for developing permit conditions.

One commenter suggested that new dischargers should be able to take advantage of general permits developed pursuant to group applications. As with other general permits, EPA anticipates that such discharges will be able to fall within the scope of a general permit based on a group application where appropriate.

One commenter stated that the group application does not benefit municipalities since there is no requirement for industrial discharges through municipal sewers to apply for a permit. As noted in a previous discussion, industrial discharges through municipal sewers must be covered by an NPDES permit. Such facilities may avail themselves of the group application procedure. Also, municipalities are not precluded from developing a group application procedure under their management plan for industries that discharge into their municipal system, in order to streamline developing controls for such industries.

One industry wanted clarification that facilities located within a municipality would be eligible to participate in a group application. All industrial activities required to submit an individual permit are entitled to submit as part of group application, except those with existing NPDES permits covering storm water. Those facilities that discharge through a municipal separate storm sewer systems required to submit an individual application (because they do not fall within a general permit) are not precluded from using the group application procedure if appropriate.

Other municipalities expressed confusion over the industrial group application concept. The following responds to these comments. First, municipalities are not eligible for participation in a group application because the group application process is designed for industrial activities. Sampling requirements for municipal permit applications are already limited to a small subset of the outfalls from the system, as discussed below. Furthermore, permits for municipal separate storm sewer systems will be issued on a system-wide or jurisdiction-wide basis, rather than individually for each outfall. Thus, today's regulation already incorporates a "grouplike" permit application process for municipalities. Furthermore, it is highly unlikely that various municipal storm sewer systems would be "substantially similar" enough to justify group treatment in the same way as industrial facilities. In response to another comment, this regulation does not directly give the municipality enforcement power over members of an industrial group who may be discharging through its system. Only the permitting authority and private citizens and organizations (including the municipality acting in such a capacity) will have enforcement power over members of the group once permits are issued to those members.

One commenter believed that the States with authorized NPDES programs rather than EPA should establish permit terms for permits based on group applications. In response to this comment, EPA wishes to clarify its role in the group application process. Group applications will be submitted to EPA headquarters where they will be reviewed and summarized. The *48024 summaries of the group application will be distributed to authorized NPDES States. EPA wishes to emphasize that NPDES States are not bound by draft model permits developed by EPA. States may adopt model permits for use in their particular area, making adjustments for local water quality standards and other regional characteristics. Where general permit coverage is believed to be inappropriate, facilities may be required to apply for individual permits. One commenter objected to the group application procedure because it is not consistent with existing Federal permitting procedures, which will lead to confusion in

the regulated community. The agency disagrees with this assessment. The group application is a departure from established NPDES program procedures. However, the comments, when viewed in their entirety, reflect widespread support from the regulated community for a group application procedure. Further, the comments reflect that those affected by this rulemaking understand the components of the group application and the procedures under which permits will be obtained pursuant to the group application.

One commenter expressed concern regarding how BAT limits for groups of similar industries will be developed. Technology based limits will be developed based on the information received from the group applicants. If the group applicants possess similar characteristics in terms of their discharge, BAT/BCT limitations and controls will be developed accordingly for those members of the group. If the discharge characteristics are not similar then applying industries are not appropriate for the group.

One commenter has suggested that the proposed group application is too complex with regard to the part 1A, part 1B, and part 2 group application requirements and that EPA should repropose these provisions. As discussed below, EPA has simplified the industrial group application requirements by eliminating the part 1B application. Thus, reproposal is unnecessary.

One commenter criticized the group application concept as not achieving any type of reduction in administrative burden for NPDES States. EPA disagrees with this assessment. If industries take advantage of the group application procedure, EPA will have an opportunity to review information describing a large number of dischargers in an organized manner. EPA will perform much of the initial review and analysis of the group application, and provide NPDES States with summaries of the applications thereby reducing the burden on the States. Furthermore, the procedure encourages a potentially large number of facilities to be covered by a general permit, which will clearly reduce the administrative burden of issuing individual permits.

The final rule establishes a regulatory procedure whereby a representative entity, such as a trade association, may submit a group application to the Office of Water Enforcement and Permits (OWEP) at EPA headquarters, in which quantitative data from certain representative members of a group of industrial facilities is supplied. Information received in the group application will be used by EPA headquarters to develop models for individual permits or general permits. These model permits are not issued permits, but rather they will be used by EPA Regions and the NPDES States to issue individual or general permits for participating facilities in the State. In developing such permits, the Region or NPDES State will, where necessary, adapt the model permits to take into account the hydrological conditions and receiving water quality in their area. One commenter expressed the view that having this procedure managed by EPA headquarters would cause delays and it should be delegated to the States and Regions. EPA disagrees that delay will ensue using this procedure. Furthermore, consistency in development of model and general permits can be achieved if application review is coordinated at EPA headquarters.

a. **Facilities Covered.** Under this rule the group application is submitted for only the facilities specifically listed in the application and not necessarily for an entire industry. The facilities in the group application selected to do sampling must be representative of the group, not necessarily of the industry.

Facilities that are sufficiently similar to those covered in a general permit (issued pursuant to a group application) that commence discharging after the general permit has been issued, must refer to the provisions of that general permit to determine if they are eligible for coverage. Facilities that have already been issued an individual permit for storm water discharges will not be eligible for participation in a group application. Several commenters believed that this restriction is inequitable since they have experienced the administrative burden of submitting a permit application. EPA disagrees. Industries that have already obtained a permit for storm water discharges have developed a storm water management program, engaged in the collection of quantitative data, and possess familiarity and experience with submitting storm water permit applications. The Agency sees no point to instituting an entirely new permit application process for facilities that have storm water permits issued individually. It makes little sense for these industries to be involved with submitting another permit application before their current permit expires.

As noted above, once a general permit has been issued to a group of dischargers, a new facility may request that they be covered by the general permit. The permitting authority can then examine the request in light of the general permit applicability requirements and determine whether the facility is suitable or not.

b. Scope of Group Applications. Numerous comments were received on how facilities should be evaluated as members of a group application. Several commenters stated that effluent limitation guideline subcategories are not relevant to pollutants found in storm water, but rather to the facility's everyday activities, and therefore similarity should be based on each facility's discharge or the similarity of pollutants expected to be found in a facility's discharge. Other commenters felt that similarity of operations at facilities should be the criteria. Others, believed that an examination of the facility's impact on storm water quality should be the applied criteria. Other commenters suggested that EPA provide more guidance as to how broadly groups can be defined and that a failure to do so would discourage facilities from going to the trouble and expense of entering into the group application process. Some commenters were concerned that facilities would be rejected as a group because of variations in processes and process wastewater characteristics.

EPA does not agree that effluent limitation guideline subcategories are inappropriate as a method for determining group applications. EPA guideline subcategories are functional classifications, breaking down facilities into groups, for purposes of setting effluent limitations guidelines. The use of EPA subcategories will save time for both applicants and permitting authorities in determining whether a particular group is appropriate for a group application. Furthermore, EPA believes that this method of grouping provides adequate guidance for determining what facilities are grouped together. Establishing groups on the extent to which a facility's discharge affects storm water quality would not provide applicants with sufficient guidance as to the appropriateness of individual industries for group applications and would not provide information needed to draft appropriate model permit conditions for potentially different types of industries, industrial processes, and material management practices. However, EPA recognizes that the subcategory designations may not always be available or an effective methodology for grouping applicants. Also, there are situations where processes that are subject to different subcategories are combined. EPA agrees that the group application option should be flexible enough to allow groups to be created where subcategories are too rigid or otherwise inappropriate for developing group applications or where facilities are integrated or overlap into other subcategories. For these reasons, this rulemaking does not limit the submission to EPA subcategories alone, but rather allows groups to be formed where facilities are similar enough to be appropriate for general permit coverage.

In determining whether a group is appropriate for general permit coverage, EPA intends that the group applicant use the factors set forth in 40 CFR 122.28(a)(2)(ii), the current regulations governing general permits, as a guide. If facilities all involve the same or similar types of operations, discharge the same types of wastes, have the same effluent limitation and same or similar monitoring requirements, where applicable, they would probably be appropriate for a group application. To that extent, facilities that attempt to form groups where the constituent makeup of its process wastewater is dissimilar may run the risk of not being accepted for purposes of a group application.

Some commenters expressed the view that categories formed using general permit factors are too broad or that the language is too vague. One commenter expressed the view that the standard is too subjective and that permit writers will be evaluating the similarity of discharge too subjectively, while other commenters felt that the criteria should be broad and flexible. Other commenters stated that the effluent guideline subcategory or general permit coverage factors are not related to storm water discharges, because much of the criteria are based upon what is occurring inside the plant, rather than activities outside of the plant. EPA believes that these criteria are reasonable for defining the scope of a group application. EPA disagrees that the procedure, which is adequate for the issuance of general permits, is inadequate for the development of a group application. EPA believes that the activities inside a facility will generally correspond to activities outside of the plant that are exposed to storm events, including stack emissions, material storage, and waste products. Furthermore, if facilities are able to demonstrate their storm water discharge has similar characteristics, that is one element in the analysis needed for establishing that the group is appropriate. EPA disagrees that the criteria are too vague. If facilities are concerned that general permit criteria is insufficient guidance, then subcategories under 40 CFR subchapter N should be used. EPA believes that the program will function best if flexibility for creating groups is maintained.

If a NPDES approved State feels that a tighter grouping of applicants is appropriate individual permit applications can be requested from those permit applicants. One commenter indicated that it was not clear whether the group application procedure could be used for all NPDES requirements. EPA would clarify that the group application is designed only to cover storm water discharges from the industrial facilities identified in § 122.26(b)(14).

As noted above, EPA wishes to clarify that facilities with existing individual NPDES permits for storm water are not eligible to participate in the group application process. From an administrative standpoint EPA is not prepared to create an entirely different mechanism for permitting industries which already have such permits.

c. Group Application Requirements. The group application, as proposed, included the following requirements in three separate parts. Part 1A of a group application included: (A) Identification of the participants in the group application by name and location; (B) a narrative description summarizing the industrial activities of participants; (C) a list of significant materials stored outside by participants; and (D) identification of 10 percent of the dischargers participating in the group application for submitting quantitative data. A proposed part 1B of the group application included the following information from each participant in the group application: (A) A site map showing topography (or indicating the outline of drainage areas served by the outfall(s) and related information; (B) an estimate of the area of impervious surfaces (including paved areas and building roofs) and the total area drained by each outfall and a narrative description of significant materials; (C) a certification that all outfalls that should contain storm water discharges associated with industrial activity have been tested for the presence of non-storm water discharges; (D) existing information regarding significant leaks or spills of toxic or hazardous pollutants at the facility; (E) a narrative description of industrial activities at the facility that are different from or that are in addition to the activities described under part 1A; and (F) a list of all constituents that are addressed in a NPDES permit issued to the facility for any of non-storm water discharge. Part 2 of a group application required quantitative data from 10 percent of the facilities identified.

Some commenters felt that spill histories, drainage maps, material management practices, and information on significant materials stored outside are too burdensome or meaningless for evaluating similarity of discharges among group applicants. Several commenters stated that such requirements where the group may consist of several thousand facilities were impractical and would not assist EPA in developing model permits. Many commenters insisted that the requirements imposed in part 1B would effectively discourage use of the group application procedure. EPA agrees in large part with these comments. After reevaluating the components of part 1B, and the entire rationale for instituting the group application procedure, EPA has decided to excise part 1B from the requirements, and rely on part 1A and part 2 for developing appropriate permit condition. Where appropriate, EPA may require facilities to submit the information, formerly in part 1B, during the term of the permit. In other cases, EPA will establish which facilities must submit individual permit applications where more site specific permits are appropriate.

Under the revised part 1 and part 2, EPA will receive information pertaining to the types of industrial activity engaged in by the group, materials used by the facilities, and representative quantitative data. EPA can use such information to develop management practices that address pollutants in storm water discharges from such facilities. For most facilities, general good housekeeping or management practices will eliminate pollutants in storm water. Such requirements can be further refined by determining the nature of a group's industrial activity and by obtaining information on material used at the facility and representative quantitative data from a *48026 percentage of the facilities. Thus, EPA is confident that model permits and general permits can be developed from the information to be submitted under part 1 and part 2.

One commenter felt that more guidance on what makes a facility representative for sampling as part of a group is needed. In response, the Agency believes the rule as currently drafted provides adequate notice.

Another commenter asked how much sampling needed to be done and how much monitoring will transpire over the life of the permit for members of a group. This will vary from permit to permit and will be determined in permit proceedings. This rulemaking only covers the quantitative data that is to be submitted in the context of the group permit application.

One commenter indicated that because of the amount of diversity in the operations of a particular industry, obtaining a sample that could be considered representative would be extremely difficult. EPA recognizes that obtaining representative quantitative data through the group application process will prove to be difficult; however, EPA has sought to minimize these perceived problems. Under the group application concept, industries must be sufficiently similar to qualify. Industries which have significantly different operations from the rest of the group that affects the quality of their storm water discharge may be required to obtain an individual permit. Use of the nine precipitation zones will enable the data in the permit application to be

more easily analyzed and patterns observed on the basis of hydrology and other regional factors. How EPA will evaluate the representativeness of the sample is discussed below.

Several commenters asked why the precipitation zone of group members is relevant to the application. The need to identify precipitation zones arises because the amount of rainfall is likely to have a significant impact on the quality of the receiving water. According to an EPA study (Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality; Office of Water, Nonpoint Source Branch, Sept. 1986) the United States can be divided into nine general precipitation zones. These zones are characterized by differences in precipitation volume, precipitation intensity, precipitation duration, and precipitation intervals. Industrial facilities that seek general permits via the group application option may show significantly different loading rates as a result of these regional precipitation differences. As an example, precipitation in Seattle, Washington, located in Zone 7, approaches the mean annual storm intensity of .024 inches/hour with a mean annual storm duration of 20 hours for that Zone. In contrast, precipitation in Atlanta, Georgia, located in Zone 3 approaches the mean annual storm intensity of .102 inches/hour and a mean storm duration of 6.2 hours for that Zone. Atlanta, receives on the average four times more precipitation per hour with storms lasting one-third as long. As a result of these differences, if identical facilities within a group application were situated in each of these areas, their storm water discharges would likely exhibit different pollutant characteristics. Accordingly, data should be submitted from facilities in each zone.

One commenter felt that the EPA should abandon or modify its rainfall zone concept, because storm water quality will depend more on what materials are used at the facility than rainfall. EPA disagrees. Because storm water loading rates may differ significantly as a result of regional precipitation differences, it is necessary that for each precipitation zone containing representatives of a group application, the group must provide samples from some of those representatives. In comments to previous rulemakings it was argued that the amount of rainfall will affect the degree of impact a storm water discharge may have on the receiving stream.

One commenter stated that the precipitation zones illustrated in appendix E of the proposed rulemaking do not adequately reflect regional differences in precipitation and that in some cases the zones cut through cities where there are concentrations of industries without differences in their precipitation patterns. The rainfall zone map is a general guide to determining what areas of the country need to be addressed when determining representative rainfall events and quantitative data. When dealing with rainfall on a national scale, it is near impossible to make generalized statements with a great deal of accuracy. In the case of rainfall zones, rainfall patterns may be similar for facilities in close proximity to each other but none the less in different rainfall zones. In response, EPA has created these zones to reflect regional rainfall patterns as accurately as possible. Because of the variable nature of rainfall such circumstances are sure to arise. However, in order to obtain a degree of representativeness EPA is convinced that the use of these rainfall zones as described is appropriate for the submittal of group applications and the quantitative data therein.

The second and third requirements of part 1 of the group application instruct the applicant to describe the industrial activity (processes) and the significant materials used by the group. For the significant materials listed, the applicant is to discuss the materials management practices employed by members of the group. For example, the applicant should identify whether such materials are commonly covered, contained, or enclosed, and whether storm water runoff from materials storage areas is collected in settling ponds prior to discharge or diverted away from such areas to minimize the likelihood of contamination. Also, the approximate percentage of facilities in the group with no practices in place to minimize materials stored outside is to be identified.

EPA considers that the processes and materials used at a particular facility may have a bearing on the quality of the storm water. Thus, if there are different processes and materials used by members of the group, the application must identify those facilities utilizing the different processes and materials, with an explanation as to why these facilities should still be considered similar.

One commenter felt that a facility should be able to describe in its permit application the possibility of individual materials entering receiving waters. EPA supports the applicant adding site specific information which will assist the permit writer making an informed decision about the nature of the facility, the quality of its storm water discharge, and appropriate permit conditions.

The fourth element of part 1 of the group application is a commitment to submit quantitative data from ten percent of the facilities listed. EPA proposed that there must be a minimum of ten and a maximum of one hundred facilities within a group that submit data. Comments reflected some dissatisfaction with this requirement. Some commenters asserted that ten percent was too high a number and would discourage group applications, while one commenter suggested a lesser percentage would be appropriate where the group can certify that facilities are representative. One commenter suggested that EPA have the discretion to allow for a smaller percentage. Several commenters argued that EPA should be satisfied with fewer than ten percent because EPA often relies on data from less than ten percent of the plants in a subcategory when promulgating effluent guidelines and that EPA should rely on data collection goals *48027 with affected groups as was done in the 1985 storm water proposal. Other commenters pointed out that an anomalous situation could arise where the group was small and facilities were scattered throughout the precipitation zones. For example, if a group consisted of 20 members where a minimum of ten facilities had to submit samples, and two or more members were in each precipitation zone; a total of 18 facilities (90% of the group) would have to submit quantitative data. EPA believes that there must be a sufficient number of facilities submitting data for any patterns and trends to be detectable. However, in light of these comments EPA has decided to modify the language in § 122.26(c) to allow 1 discharger in each precipitation zone to submit quantitative data where 10 or fewer of the group members are located in a particular precipitation zone. EPA believes, however, that one hundred facilities would in most cases be sufficient to characterize the nature of the runoff and thus 100 should remain the maximum. If the data are insufficient, EPA has the authority to request more sampling under section 308 of the CWA.

One commenter suggested that the ten facility cutoff was unreasonable, and that instead of cutting off the group at ten, allow a smaller number in the group and allow the facilities to sample ten percent of their outfalls instead. EPA agrees, in part, and will allow groups of between four and ten to submit a group application. However, the ten percent rule would not be effective in such cases. Therefore, at least half the facilities in a group of four to ten will be required to provide quantitative data from at least one outfall, with each precipitation zone represented by at least one facility.

For any group application, in addition to selecting a sufficient number of facilities from each precipitation zone, facilities selected to do the sampling should be representative of the group as a whole in terms of those characteristics identifying the group which were described in the narrative, i.e., number and range of facilities, types of processes used, and any other relevant factors. If there is some variation in the processes used by the group (40 percent of the group of food processors are canners and 60 percent are canners and freezers, for example), the different processes are to be represented. Also, samples are to be provided from facilities utilizing the materials management practices identified, including those facilities which use no materials management practices. The representation of these different factors, to the extent feasible, is to be roughly equivalent to their proportion in the group.

EPA wishes to emphasize that the provision that ten percent of the facilities need to submit quantitative data only applies to the permit application process. The general or individual permit itself may require quantitative data from each facility.

Submittal of Part 2 of the Group Application. As with part 1, part 2 of the Group Application would be submitted to the Office of Water Enforcement and Permits, in Washington, DC. If the information is incomplete, or simply is found to be an inadequate basis for establishing model permit limits, EPA has the authority under section 308 of the Clean Water Act to require that more information be submitted, which may include sampling from facilities that were part of the group application but did not provide data with the initial submission. If the group application is used by a Region or NPDES State to issue a general permit, the general permit should specify procedures for additional coverage under the permit.

If a part 2 is unacceptable or insufficient, EPA has the option to request additional information or to require that the facilities that participated in the group application submit complete individual applications (e.g. facilities that have submitted Form 1 with the group application may be required to submit Form 2F, or facilities which have submitted complete Form 1 and Form 2F information in the group application generally would not have to submit additional information).

Once the group applications are reviewed and accepted, EPA will use the information to establish draft permit terms and conditions for models for individual and general permits. NPDES approved States and EPA regional offices will continue to be

the permit-issuing authority for storm water discharges. The NPDES approved States accepting the group application approach and the EPA Regions may then take the model permits and adapt them for their particular area, making adjustments for local water quality standards and other localized characteristics, and making determinations as to the need for an individual storm water permit where general permit coverage is felt to be inappropriate. Permits would be proposed by the Region or NPDES approved State in accordance with current regulations for public comment before becoming final. In NPDES States without general permit authority, or where an individual permit is deemed appropriate, the model permit can serve as the basis for issuing an individual permit.

The group application is an NPDES permit application just like any other and, as such, would be handled through normal permitting procedures, subject to the regulatory provisions applicable to permit issuance. Incomplete or otherwise inadequate submissions would be handled in the same manner as any other inadequate permit application. The permit issuing authority would retain the right to require submission of Form 1, Form 2C and Form 2F from any individual discharger it designates.

Some commenters offered other procedures for developing a group application procedure; however, these were frequently entirely different approaches or so novel that a reproposal would be required. One commenter suggested that those industries that are identified as being likely to pollute should be required to submit quantitative data. Numerous commenters contended that a generic approach for meeting the required information requirements for group applications would allow EPA to develop adequate general permits. EPA does not view these approaches as appropriate.

5. Group Application: Applicability in NPDES States

Many commenters expressed concern about how the group application procedure will work within the framework of an NPDES approved State. The relationship between EPA and the States that are authorized to administer the NPDES program, including implementation of the storm water program, is a complicated aspect of this rulemaking. Approved States (there are 38 States and one territory so approved) must have requirements that are at least as stringent as the Federal program; they may be more stringent if they choose. Authority to issue general permits is optional with NPDES States.

EPA has determined that ten percent of the facilities must provide quantitative data in the permit application as noted above. Furthermore, these applications are submitted to EPA headquarters. Consequently States, whether NPDES approved or not, are not in a position to reject or modify this requirement. Such States may determine the amount of sampling to be done pursuant to permit conditions. If they choose to issue general permits they may include such authority in their NPDES program and, *48028 upon approval of the program by EPA, may then issue general permits. Within the context of the NPDES provisions of the CWA, if States do not have general permitting authority, then general permits are not available in those States.

In response to one comment, EPA does not have authority to issue general or individual permits to facilities in NPDES approved states. Today's rule provides a means for affected industries to be covered by general permits developed via the group application procedure as well as from general permits developed independently of the group application process. Accordingly, today's rule anticipates that most NPDES States will seek general permit issuance authority to implement the storm water program in the most efficient and economical way. Without general permit issuance authority NPDES States will be required to issue individual permits covering storm water discharges to potentially thousands of industrial facilities.

One commenter recommended that States with approved NPDES programs should be involved in determining what industries are representative for submitting quantitative data. EPA recognizes that States will have an interest in this determination and may possess insight as to the appropriateness of using some facilities. However, EPA may be managing hundreds of group applications and approving or disapproving them as expeditiously as possible. EPA believes that involving the States in this already administratively complex and time consuming undertaking would be counterproductive. In any event, NPDES approved States are not bound by the determinations of EPA as to the appropriateness of groups or the issuance of permits based on model permits or individual permits. However, States will be encouraged to use model permits that are developed by EPA. EPA will endeavor to design general and model permits that are effective while also adaptable to the concerns of different States. Again, States are able to develop more stringent standards where they deem it to be appropriate. There are currently seventeen States that have authority to issue general permits: Arkansas, Colorado, Illinois, Kentucky, Minnesota, Missouri, Montana, New

Jersey, North Dakota, Oregon, Rhode Island, Utah, Washington, West Virginia and Wisconsin. As suggested in the comments, EPA is encouraging more States to develop general permit issuing authority in order to facilitate the permitting process.

One commenter advised that the rules should state that a NPDES approved State may accept a group application or require additional information. EPA has decided not to explicitly state this in the rule. However, this comment does raise some points that need to be addressed. Because the group application option is a modification of existing NPDES permit application requirements, the State is free to adopt this option, but is not required to. If the State chooses to adopt the group application and it does not have general permit authority, the group application can be used to issue individual permits. If an approved NPDES State chooses to not issue permits based on the group application, facilities that discharge storm water associated with industrial activity that are located in that State must submit individual applications to the State permitting authority. Before submitting a group application, facilities should ascertain from the State permitting authority whether that State intends to issue permits based upon a group application approved by EPA for the purpose of developing general permits. For facilities that discharge storm water associated with industrial activity which are named in a group application, the Director may require an individual facility to submit an individual application where he or she determines that general permit coverage would be inappropriate for the particular facility.

One commenter stressed that EPA should streamline the procedure for States desiring to obtain general permit coverage. EPA has, over the last year, streamlined this procedure and encourages States to take advantage of this procedure. EPA recommends that States consider obtaining general permit authority as a means to efficiently issue permits for storm water discharges. These States should contact the Office of Water Enforcement and Permits at EPA Headquarters as soon as possible.

6. Group Application: Procedural Concerns

One commenter claimed that the proposed group application process and procedures violated federal law. This commenter claimed that EPA was abrogating its responsibility by allowing a trade association to design a data collection plan in lieu of completing an NPDES application form designed by EPA, thus violating the Federal Advisory Committee Act. The commenter stated that EPA would be improperly influenced by special interests if trade associations were able to design their own storm water data gathering plans. The commenter further asserted that any decisions by EPA on the content of specific group applications would be rulemakings and thus subject to the provisions of the Administrative Procedure Act.

EPA disagrees with the comment that the group application violates the Federal Advisory Committee Act (FACA). FACA governs only those groups that are established or "utilized" by an agency for the purpose of obtaining "advice" or "recommendations." The group application option does not solicit or involve any "advice" or "recommendations." It simply allows submission of data by certain members of a group in accordance with specific regulatory criteria for determining which facilities are "representative" of a group. As such, the group application is merely a submission in accordance and in compliance with specific regulatory requirements and does not contain discretionary uncircumscribed "advice" or "recommendations" as to which facilities are representative of a group.

Thus, the determination of which facilities should submit testing data in accordance with regulatory criteria is little different from many other regulatory requirements where an applicant must submit information in accordance with certain criteria. For example, under 40 CFR 122.21 all outfalls must be tested except where two or more have "substantially identical" effluents. Similarly, quantitative data for certain pollutants are to be provided where the applicant knows or "has reason to believe" such pollutants are discharged. Both of these provisions allow the applicant to exercise discretion in making certain judgments but such action is circumscribed by regulatory standards. EPA further has authority to require these facilities to submit individual applications. In none of these instances are "recommendations" or "advice" involved. EPA also notes that it is questionable whether, in providing for group applications, it is "soliciting" advice or recommendations from groups or that such groups are being "utilized" by EPA as a "preferred source" of advice. See 48 FR 19324 (April 28, 1983). Furthermore, this data collection effort may be supplemented by EPA if, after review of the data, EPA determines additional data is necessary for permit issuance. Other information gathering may act as a check on the group applications received.

EPA also does not agree with this commenter's claim that the group application scheme represents an **48029* impermissible delegation of the Administrator's function in violation of the CWA regarding data gathering. The Administrator has the broadest

discretion in determining what information is needed for permit development as well as the manner in which such information will be collected. The CWA does not require every discharger required to obtain a permit to file an application. Nor does the CWA require that the Administrator obtain data on which a permit is to be based through a formal application process (see 40 CFR 122.21). For years "applications" have not been required from dischargers covered by general permits. EPA currently obtains much information beyond that provided in applications pursuant to section 308 of the CWA. This is especially true with respect to general permit and effluent limitations guidelines development. The group application option is simply another means of data gathering. The Administrator may always collect more data should he determine it necessary upon review of a groups' data submission. And, he may obtain such additional data by whatever means permissible under the Statute that he deems appropriate. Thus, it can hardly be said that by this initial data gathering effort the Administrator has delegated his data gathering responsibilities. In addition, since groups are required to select "representative" facilities, etc., in accordance with specific regulatory requirements established by the Administrator and because EPA will scrutinize part 1 of the group applications and either accept or reject the group as appropriate for a group application, no impermissible delegation has occurred. EPA will make an independent determination of the acceptability of a group application in view of the information required to be submitted by the group applicant, other information available to EPA (such as information on industrial subcategories obtained in developing effluent limitations guidelines as well as individual storm water applications received as a result of today's rule) and any further information EPA may request to supplement part 1 pursuant to section 308 of the CWA. Moreover, any concerns that a general permit may be based upon biased data can be dealt with in the public permit issuance process.

Finally, EPA also does not agree that the group application option violates the Administrative Procedures Act. Again, the group application scheme is simply a data gathering device. EPA could very well have determined to gather data informally via specific requests pursuant to section 308 of the CWA. In fact, general permit and effluent limitations guideline development proceed along these lines. It would make little sense if the latter informal data gathering process were somehow illegal simply because it is set forth in a rule that allows applicants some relief upon certain showings. In this respect, several of EPA's existing regulations similarly allow an applicant to be relieved from certain data submission requirements upon appropriate demonstrations. For example, testing for certain pollutants and or certain outfalls may be waived under certain circumstances. Most importantly, the operative action of concern that impacts on the public is individual or general permit issuance based upon data obtained. As previously stated, ample opportunity for public participation is provided in the permit issuance proceeding.

7. Permit Applicability and Applications for Oil and Gas and Mining Operations

Oil, gas and mining facilities are among those industrial sites that are likely to discharge storm water runoff that is contaminated by process wastes, toxic pollutants, hazardous substances, or oil and grease. Such contamination can include disturbed soils and process wastes containing heavy metals or suspended or dissolved solids, salts, surfactants, or solvents used or produced in oil and gas operations. Because they have the potential for serious water quality impacts, Congress recognized, throughout the development of the storm water provisions of the Water Quality Act of 1987, the need to control storm water discharges from oil, gas, and mining operations, as well as those associated with other industrial activities.

However, Congress also recognized that there are numerous situations in the mining and oil and gas industries where storm water is channeled around plants and operations through a series of ditches and other structural devices in order to prevent pollution of the storm water by harmful contaminants. From the standpoint of resource drain on both EPA as the permitting agency and potential permit applicants, the conclusion was that operators that use good management practices and make expenditures to prevent contamination must not be burdened with the requirement to obtain a permit. Hence, section 402(1)(2) creates a statutory exemption from storm water permitting requirements for uncontaminated runoff from these facilities.

To implement section 402(1)(2), EPA intends to require permits for contaminated storm water discharges from oil, gas and mining operations. Storm water discharges that are not contaminated by contact with any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations will not be required to obtain a storm water discharge permit.

The regulated discharge associated with industrial activity is the discharge from any conveyance used for collecting and conveying storm water located at an industrial plant or directly related to manufacturing, processing or raw materials storage areas at an industrial plant. Industrial plants include facilities classified as Standard Industrial Classifications (SIC) 10 through

14 (the mining industry), including oil and gas exploration, production, processing, and treatment operations, as well as transmission facilities. See 40 CFR 122.26(b)(14)(iii). This also includes plant areas that are no longer used for such activities, as well as areas that are currently being used for industrial processes.

a. Oil and Gas Operations. In determining whether storm water discharges from oil and gas facilities are "contaminated", the legislative history reflects that the EPA should consider whether oil, grease, or hazardous materials are present in storm water runoff from the sites described above in excess of reportable quantities (RQs) under section 311 of the Clean Water Act or section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). [Vol. 132 Cong. Rec. H10574 (daily ed. October 15, 1986) Conference Report].

Many of the comments received by EPA regarding this exemption focused on the concern that EPA's test for requiring a permit is and would subject an unnecessarily large number of oil and gas facilities to permit application requirements. Specific comments made in support of this concern are addressed below.

A primary issue raised by commenters centered on how to determine when a storm water discharge from an oil or gas facility is "contaminated", and therefore subject to the permitting program under section 402 of the CWA. Many of the comments received from industry representatives objected to the Agency's intent as expressed in the proposal to use past discharges as a trigger for submitting permit applications.

The proposed rule provided that the notification requirements for releases in excess of RQs established under the CWA and CERCLA would serve as a *48030 basis for triggering the submittal of permit applications for storm water discharges from oil and gas facilities. As described in the proposal, oil and gas operations that have been required to notify authorities of the release of either oil or a hazardous substance via a storm water route would be required to submit a permit application. In other words, any facility required to provide notification of the release of an RQ of oil or a hazardous substance in storm water in the past would be required to apply for a storm water permit under the current rule. In addition, any facility required to provide notification regarding a release occurring from the effective date of today's rule forward would be required to apply for a storm water permit.

Commenters maintained that the use of historical discharges to require permit applications is inconsistent with the language and intent of section 402(1)(2) of the CWA, and relevant legislative history, both of which focus on present contamination. Requiring storm water permits based solely on the occurrence of past contaminated discharges, even where no present contamination is evident, would go beyond the statutory requirement that EPA not issue a permit absent a finding present contamination. Commenters also noted that the proposal did not take into account the fact that past problems leading to such releases may have been corrected, and that requiring an NPDES permit may no longer be necessary. The result of such a requirement, commenters maintained, would be an excessive number of unnecessary permit applications being submitted, at significant cost and minimal benefit to both regulated facilities and regulating authorities.

Commenters also indicated that using the release of reportable quantities of oil, grease or hazardous substances as a permit trigger would identify discharges of an isolated nature, rather than the continuous discharges, which should be the focus of the NPDES permit program under section 402. Such an approach, commenters maintained, is inconsistent with existing regulations under section 311 of the CWA, and would result in permit applications from facilities that are more appropriately regulated under section 311.

Despite these criticisms, many commenters recognized that the Agency is left with the task of determining when discharges from oil and gas facilities are contaminated, in order to regulate them under section 402(1)(2). It was suggested by numerous commenters that the EPA adopt an approach similar to that used under section 311 of the CWA for Spill Prevention Control and Countermeasure (SPCC) Plans. Under SPCC, facilities that are likely to discharge oil into waters of the United States are required to maintain a SPCC plan. In the event the facility has a spill of 1,000 gallons or 2 or more reportable quantities of oil in a 12 month period, the facility is required to submit its SPCC plan to the Agency. The triggering events proposed by the commenters for storm water permits for oil and gas operations are six reportable sheens or discharges of hazardous substances (other than oil) in excess of section 311 or section 102 reportable quantities via a storm water point source route over any thirty-

six month period. It was suggested that if this threshold is reached, an operator would then file a permit application (or join a group application) based upon the presumption that its current storm water discharges are contaminated.

In response to these comments, the Agency believes that past releases that are reportable quantities can be a valid indicator of the potential for present contamination of discharges. The legislative history as cited above supports this conclusion. EPA would note that the existence of a RQ release would serve only as a triggering mechanism for a permit application. Under the proposed rule, evidence of past contamination would merely require submission of a permit application and would not be used as conclusive evidence of current contamination. The determination as to whether a permit would be actually required due to current contaminated discharge would be made by the permitting authority after reviewing the permit application. The fact of a past RQ release does not necessarily imply a conclusive finding of contamination, only that sufficient potential for contamination exists to warrant a permit application or the collection of other further information. Today's rule does not change the proposed approach in this respect. Thus, EPA does not believe that today's rule exceeds the authority of section 402(1)(2).

EPA believes that there is no legal impediment to using past RQ discharges as a trigger for requiring a storm water permit application. EPA notes that, as mentioned above, even those commenters who objected to the proposed test on legal authority grounds merely offered an alternate test that requires more releases to have occurred within a shorter period of time before a permit application is required.

Therefore, the only disagreement that remains is over what constitutes a reasonable test that will identify facilities with the potential for storm water contamination. EPA notes that neither the statute nor the legislative history provides any guidance on this question. Furthermore, EPA disagrees with the commenters who suggested that 6 releases in the past 3 years or 2 releases in the past year are necessarily more valid measures of the potential for current contamination than EPA's proposed test. There is no statistical or other basis for preferring one test to the other. However, EPA does agree with those commenters that suggest that a single release in the distant past may not accurately reflect current conditions and the current potential for contamination.

EPA has therefore amended today's rule to provide that only oil and gas facilities which have had a release of an RQ of oil or hazardous substances in storm water in the past three years will be required to submit a permit application. EPA believes that limiting the permit trigger to events of the past three years will address commenters' concerns regarding the use of "stale history" in determining whether an application is required. EPA notes that the three year cutoff is consistent with the requirement for industrial facilities to report significant leaks or spills at the facility in their storm water permit applications. See 40 CFR 122.26(c)(1)(i)(D).

Commenters asserted that EPA and the States must have some reasonable basis for concluding that a storm water discharge is contaminated before requiring permit applications or permits. Commenters believed that § 122.26(c)(1)(iii)(B) as proposed implied that the Agency's authority in this respect is unrestricted. In response, EPA may collect such data by whatever appropriate means the statute allows, in order to obtain information that a permit is required. Usually, the most practical tool for doing so is the permit application itself. However, if necessary to supplement the information made available to the Agency, EPA has broad authority to obtain information necessary to determine whether or not a permit is required, under section 308 of the Clean Water Act. Given the plain language of the CWA and the Congressional intent as manifested in the legislative history, the Agency is convinced that the approach described above is appropriate. Yet, as further discussed below, EPA has also deleted as redundant § 122.26(c)(1)(iii)(B).

Regarding the types of facilities included in the storm water regulation, a number of commenters suggested that the Agency has misconstrued the meaning of facilities "associated with *48031 industrial activity", and has proposed an overly broad definition of such facilities in the oil and gas industry. Specifically, commenters suggested that only the manufacturing sector of the oil and gas industry should be subject to storm water permit application requirements, and that exploration and production activities, gas stations, terminals, and bulk plants should all be exempted from storm water permitting requirements. Commenters maintain that this broad interpretation would subject many oil and gas facilities to the storm water permit requirements, when these were not intended by Congress to be so regulated. As a second point related to this issue, some commenters felt that transmission facilities were not intended to be regulated under the storm water provisions, and should be

exempted from permit requirements. This would be consistent, it was argued, with legislative history which concluded that transmission facilities do not significantly contribute to the contamination of water.

The Agency disagrees that these facilities do not fall under the storm water permitting requirements as envisioned by Congress. SIC 13, which is relied upon by EPA to identify these oil and gas operations, describes oil and gas extraction industries as including facilities related to crude oil and natural gas, natural gas liquids, drilling oil and gas wells, oil and gas exploration and field services. Moreover, legislative history as it applies to industrial activities, and thus to oil and gas (mining) operations, expressly includes exploration, production, processing, transmission, and treatment operations within the purview of storm water permitting requirements and exemptions. EPA's intent is for storm water permit requirements (and the exemption at hand) to apply to the activities listed above (exploration, production, processing, treatment, and transmission) as they relate to the categories listed in SIC 13.

Commenters requested clarification from the Agency that storm water discharges from oil and gas facilities require a permit or the filing of a permit application only when they are contaminated at the point of discharge into waters of the United States. Commenters noted that large amounts of potentially contaminated stormwater may not enter waters of the United States, or may enter at a point once the discharge is no longer "contaminated". In these cases, it should be clear that no permit or permit application is required.

EPA agrees that oil and gas exploration, production, processing, or treatment operations or transmission facilities must only obtain a storm water permit when a discharge to waters of the U.S. (including those discharges through municipal separate storm sewers) is contaminated. A permit application will be required when any discharge in the past three years or henceforth meets the test discussed above.

Under the proposed rule, the Agency stated at § 122.26(c)(1)(iii)(B) that the Director may require on a case-by-case basis the operator of an existing or new storm water discharge from an oil or gas exploration, production, processing, or treatment operation, or transmission facility to submit an individual permit application. The Agency has removed this section since CWA section 402(1)(2), as codified in 122.26(c)(1)(iii)(A), adequately addresses every situation where a permit should be required for these facilities.

b. Use of Reportable Quantities to Determine if a Storm Water Discharge from an Oil or Gas Operation is Contaminated. Section 311(b)(5) of the CWA requires reporting of certain discharges of oil or a hazardous substance into waters of the United States (see 44 FR 50766 (August 29, 1979)). Section 304(b)(4) of the Act requires that notification levels for oil and hazardous substances be set at quantities which may be harmful to the public health or welfare of the United States, including but not limited to fish, shellfish, wildlife, and public or private property, shorelines and beaches. Facilities which discharge oil or a hazardous substance in quantities equal to or in excess of an RQ, with certain exceptions, are required to notify the National Response Center (NRC).

Section 102 of CERCLA extended the reporting requirement for releases equal to or exceeding an RQ of a hazardous substance by adding chemicals to the list of hazardous substances, and by extending the reporting requirement (with certain exceptions) to any releases to the environment, not just those to waters of the United States.

Pursuant to section 311 of the CWA, EPA determined reportable quantities for discharges by correlating aquatic animal toxicity ranges with 5 reporting quantities, i.e., 1-, 10-, 100-, 1000-, and 5000- pounds per 24 hour period levels. Reportable quantity adjustments made under CERCLA rely on a different methodology. The strategy for adjusting reportable quantities begins with an evaluation of the intrinsic physical, chemical, and toxicological properties of each designated hazardous substance. The intrinsic properties examined, called "primary criteria," are aquatic toxicity, mammalian toxicity (oral, dermal, and inhalation), ignitability, reactivity, and chronic toxicity. In addition, substances that were identified as potential carcinogens have been evaluated for their relative activity as potential carcinogens. Each intrinsic property is ranked on a five-tier scale, associating a specific range of values on each scale with a particular reportable quantity value. After the primary criteria reportable quantities are assigned, the hazardous substances are further evaluated for their susceptibility to certain extrinsic degradation processes

(secondary criteria). Secondary criteria consider whether a substance degrades relatively rapidly to a less harmful compound, and can be used to raise the primary criteria reportable quantity one level.

Also pursuant to section 311, EPA has developed a reportable quantity for oil and associated reporting requirements at 40 CFR part 110. These requirements, known as the oil sheen regulation, define the RQ for oil to be the amount of oil that violates applicable water quality standards or causes a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or causes a sludge or emulsion to be deposited.

Reportable quantities developed under the CWA and CERCLA were not developed as effluent guideline limitations which establish allowable limits for pollutant discharges to surface waters. Rather, a major purpose of the notification requirements is to alert government officials to releases of hazardous substances that may require rapid response to protect public health, welfare, and the environment. Notification based on reportable quantities serves as a trigger for informing the government of a release so that the need for response can be evaluated and any necessary response undertaken in a timely fashion. The reportable quantities do not themselves represent any determination that releases of a particular quantity are actually harmful to public health, welfare, or the environment.

EPA requested comment on the use of RQs for determining contamination in discharges from oil and gas facilities. As noted above numerous commenters supported the concept of using reportable quantities under certain circumstances. Comments on the measurement of oil sheens for the purpose of triggering a permit application were divided. Some commented that it is much too stringent because the amount of oil creating a sheen may be a relatively small amount. Others viewed the test as a quick, easy, practical method that has been effective in the past.

In relying on the reporting requirements associated with releases in excess of RQs for oil or hazardous substances to trigger the submittal of permit applications for oil and gas operations, the Agency believes that the use of the reporting requirements for oil will be particularly useful. The Agency believes that the release of oil to a storm water discharge in amounts that cause an oil sheen is a good indicator of the potential for water quality impacts from storm water releases from oil and gas operations. In addition, given the extremely high number of such operations (the Agency estimates that there are over 750,000 oil wells alone in the United States), relying on the oil sheen test to determine if storm water discharges from such sites are "contaminated" will be a far easier test for operators to determine whether to file a storm water permit application than a test based on sampling. The detection of a sheen does not require sophisticated instrumentation since a sheen is easily perceived by visual observation. EPA agrees with those comments calling the oil sheen test an appropriate measure for triggering a storm water permit application. In adopting this approach, EPA recognizes, as pointed out by many commenters that an oil sheen can be created with a relatively small amount of oil.

One commenter suggested that contamination must be caused by contact with on-site material before being subject to permit application requirements. The Agency agrees with this comment. Those facilities that have had releases in excess of reportable quantities will generally have contamination from contact with on-site material as described in the CWA. Thus, use of the RQ test is an appropriate trigger. As discussed above, determination of whether contamination is present to warrant issuance of a permit will be made in the context of the permit proceeding.

One commenter believed that the use of RQs is inappropriate because "the statute intended to exempt only oil and gas runoff that is not contaminated at all." The Agency wishes to clarify that reportable quantities are being used to determine what facilities need to file permit applications and to describe what is meant by the term "contaminated." The Director may require a permit for any discharges of storm water runoff contaminated by contact with any overburden, raw material, intermediate product, finished product, by product or waste product at the site of such operations. The use of RQs is solely a mechanism for identifying the facilities most likely to need a storm water permit consistent with the legislative history of section 402(1)(2).

c. Mining Operations. The December 7, 1988 proposal would establish background levels as the standard used to define when a storm water discharge from a mining operation is contaminated. When a storm water discharge from a mining site was found to contain pollutants at levels that exceed background levels, the owner or operator of the site was required to submit a permit application for that operation. The proposal was founded upon language in the legislative history stating that the determination

of whether storm water is contaminated by contact with overburden, raw material, intermediate product, finished product, byproduct, or waste products "shall take into consideration whether these materials are present in such stormwater runoff . . . above natural background levels". [Vol. 132 Cong. Rec. H10574 (daily ed. Oct. 15, 1986) Conference Report].

Comments received on this component of the rule suggested that background levels of pollutants would be very difficult to calculate due to the complex topography frequently encountered in alpine mining regions. For example, if a mine is located in a mountain valley surrounded on all sides by hills, the site will have innumerable slopes feeding flow towards it. Under such circumstances, determining how the background level is set would prove impractical. Commenters indicated that it is very difficult to measure or determine background levels at sites where mining has occurred for prolonged periods. In many instances, data on original background levels may not be available due to long-term site activity. As a result, any background level established will vary based on the type and level of previous activity. In addition, mining sites typically have background levels that are naturally distinct from the surrounding areas. This is due to the geologic characteristics that makes them valuable as mining sites to begin with. This also makes it difficult to establish accurate background levels.

Because of these concerns EPA has decided to drop the use of background levels as a measure for determining whether a permit application is required. Accordingly, a permit application will be required when discharges of storm water runoff from mining operations come into contact with any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site. Similar to the RQ test for oil and gas operations, EPA intends to use the "contact" test solely as a permit application trigger. The determination of whether a mining operation's runoff is contaminated will be made in the context of the permit issuance proceedings.

If the owner or operator determines that no storm water runoff comes into contact with overburden, raw material, intermediate product, finished product, byproduct, or waste products, then there is no obligation to file a permit application. This framework is consistent with the statutory provisions of section 402(1)(2) and is intended to encourage each mining site to adopt the best possible management controls to prevent such contact.

Several commenters stated that EPA's use of total pollutant loadings for determining permit applicability is not consistent with the general framework of the NPDES program. Their concern is that such evaluation criteria depart from how the NPDES program has been administered in the past, based on concentration limits. In addition, commenters requested that EPA clarify that information on mass loading will be used for determining the need for a permit only. Since the analysis of natural background levels as a basis for a permit application has been dropped from this rulemaking, these issues are moot.

Commenters noted that the proposed rule did not specify what impact this rulemaking has on the storm water exemptions in 40 CFR 440.131. The commenters recommended not changing any of these provisions. Some commenters indicated that mining facilities that have NPDES permits should not be subject to additional permitting under the storm water rule. EPA does not intend that today's rule have any effect on the conditional exemptions in 40 CFR 440.131. Where a facility has an overflow or excess discharge of process-related effluent due to stormwater runoff, the conditional exemptions in 40 CFR 440.131 remain available.

Several commenters note that the term overburden, as used in the context of the proposed storm water rule, is not defined and recommended that this term should be defined to delineate the scope of the regulation. EPA agrees that the term overburden should be defined to help properly define the scope the storm water rule. In today's rule, the term *48033 overburden has been clarified to mean any material of any nature overlying a mineral deposit that is removed to gain access to that deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations. This definition is patterned after the overburden definition in SMCRA, and is designed to exclude undisturbed lands from permit coverage as industrial activity. However, the definition provided in this regulation may be revised at a later date, to achieve consistency with the promulgation of RCRA Subtitle D mining waste regulations in the future.

Numerous commenters raised issues pertaining to the inclusion of inactive mining areas as subject to the stormwater rule. Some commenters indicated that including inactive mine operations in the rule would create an unreasonable hardship on the industry. EPA has included inactive mining areas in today's rule because some mining sites represent a significant source of contaminated

stormwater runoff. EPA has clarified that inactive mining sites are those that are no longer being actively mined, but which have an identifiable owner/operator. The rule also clarifies that active and inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities required for the sole purpose of maintaining the mining claim are undertaken. The Agency would clarify that claims on land where there has been past extraction, beneficiation, or processing of mining materials, but there is currently no active mining are considered inactive sites. However, in such cases the exclusion discussed above for uncontaminated discharges will still apply.

EPA's definition of active and inactive mining operations also excludes those areas which have been reclaimed under SMCRA or, for non-coal mining operations, under similar applicable State or Federal laws. EPA believes that, as a general matter, areas which have undergone reclamation pursuant to such laws have concluded all industrial activity in such a way as to minimize contact with overburden, mine products, etc. EPA and NPDES States, of course, retain the authority to designate particular reclaimed areas for permit coverage under section 402(p)(2)(E).

The proposed rule had included an exemption for areas which have been reclaimed under SMCRA, although the language of the proposed rule inadvertently identified the wrong universe of coal mining areas. The final rule language has been revised to clarify that areas which have been reclaimed under SMCRA (and thus are no longer subject to 40 CFR part 434 subpart E) are not subject to today's rule. Today's rule thus is consistent with the coal mining effluent guideline in its treatment of areas reclaimed under SMCRA.

In response to comments, EPA has also expanded this concept to exclude from coverage as industrial activity non-coal mines which are released from similar State or Federal reclamation requirements on or after the effective date of this rule. EPA believes it is appropriate, however, to require permit coverage for contaminated runoff from inactive non-coal mines which may have been subject to reclamation regulations, but which have been released from those requirements prior to today's rule. EPA does not have sufficient evidence to suggest that each State's previous reclamation rules and/or Federal requirements, if applicable, were necessarily effective in controlling future storm water contamination.

8. Application Requirements for Construction Activities

As discussed above, EPA has included storm water discharges from activities involving construction operations that result in the disturbance of five acres total land in the regulatory definition of storm water discharges associated with industrial activity.

This is a departure from the proposed rule which required permit applications for discharges from activities involving construction operations that result in the disturbance of less than one acre total land area and (which are not part of a larger common plan of development or sale; or operations that are for single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than five acre total land areas and which are not part of a larger common plan of development or sale). The reasons for this change are noted below.

Many commenters representing municipalities, States, and industry requested that clearing, grading, and excavation activities not be included in the definition of storm water discharges associated with industrial activity. It was suggested that EPA delay including construction activities until after the studies mandated in section 402(p)(5) of the CWA are completed. Other commenters felt that NPDES permits are not appropriate for construction discharges due to their short term, intermediate and seasonal nature. Another commenter felt that only the construction activities on the sites of the industrial facilities identified in the other subsections of the definition of "associated with industrial activity" should be included.

EPA believes that storm water permits are appropriate for the construction industry for several reasons. Construction activity at a high level of intensity is comparable to other activity that is traditionally viewed as industrial, such as natural resource extraction. Construction that disturbs large tracts of land will involve the use of heavy equipment such as bulldozers, cranes, and dump trucks. Construction activity frequently employs dynamite and/or other equipment to eliminate trees, bedrock, rockwork, and to fill or level land. Such activities also engage in the installation of haul roads, drainage systems, and holding ponds that are typical of the industrial activity identified in § 122.26(b)(14)(i-x). EPA cannot reasonably place such activity in the same category as light commercial or retail business.

Further, the runoff generated while construction activities are occurring has potential for serious water quality impacts and reflects an activity that is industrial in nature. Where construction activities are intensive, the localized impacts of water quality may be severe because of high unit loads of pollutants, primarily sediments. Construction sites can also generate other pollutants such as phosphorus, nitrogen and nutrients from fertilizer, pesticides, petroleum products, construction chemicals and solid wastes. These materials can be toxic to aquatic organisms and degrade water for drinking and water-contact recreation. Sediment runoff rates from construction sites are typically 10 to 20 times that of agricultural lands, with runoff rates as high as 100 times that of agricultural lands, and 1,000 to 2,000 times that of forest lands. Even small construction sites may have a significant negative impact on water quality in localized areas. Over a short period of time, construction sites can contribute more sediment to streams than was previously deposited over several decades.

EPA is convinced that because of the impacts of construction discharges that are directly to waters of the United States, such discharges should be addressed by permits issued by Federal or NPDES State permitting authorities. It is evident from numerous studies and reports submitted under section 319 of the CWA that discharges from construction sites continue to be a major source of water quality problems and water quality standard violations. *48034 Accordingly EPA is compelled to address these source under these regulations and thereby regulate these sources under a nationally consistent program with an appropriate level of enforcement and oversight.

Techniques to prevent or control pollutants in storm water discharges from construction are well developed and understood. A primary control technique is good site planning. A combination of nonstructural and structural best management practices are typically used on construction sites. Relatively inexpensive nonstructural vegetative controls, such as seeding and mulching, are effective control techniques. In some cases, more expensive structural controls may be necessary, such as detention basins or diversions. The most efficient controls result when a comprehensive storm water management system is in place. Another reason that EPA has decided to address this class of discharges is that it is part of the Agency's recent emphasis on pollution prevention. Studies such as NURP indicate that it is much more cost effective to develop measures to prevent or reduce pollutants in storm water during new development than it is to correct there problems later on. Many of these prevention and control practices, which can take the form of grading patterns as well as other controls, generally remain in place after the construction activities are completed.

a. Permit Application Requirements. In today's rulemaking, EPA has set forth distinct permit application requirements for these construction activities, at § 122.26(c)(1)(ii), to be used where general permits to be developed and promulgated by EPA are inapplicable. Such facilities will be required to provide a map indicating the site's location and the name of the receiving water and a narrative description of:

- The nature of the construction activity;
- The total area of the site and the area of the site that is expected to undergo excavation during the life of the permit;
- Proposed measures, including best management practices, to control pollutants in storm water discharges during construction, including a description of applicable Federal requirements and State or local erosion and sediment control requirements;
- Proposed measures to control pollutants in storm water discharges that will occur after construction operations have been completed, including a description of applicable State or local requirements, and
- An estimate of the runoff coefficient (fraction of total rainfall that will appear as runoff) of the site and the increase in impervious area after the construction addressed in the permit application is completed, a description of the nature of fill material and existing data describing the soil or the quality of the discharge.

Permit application requirements for construction activities do not include the submission of quantitative data. EPA believes that the changing nature of construction activities at a site to be covered by the permit application requirements generally would not be adequately described by quantitative data. The comments received by EPA support this determination. One State commented

that a program they instituted has been based on quantitative data for the past 10 years and has proven to be very awkward, even unworkable.

Twenty commenters responded to the issue of appropriate construction site application deadlines including: Three towns (<100,000 population); one medium municipality; one large municipality; one agency associated with a large municipality; three agencies associated counties; three agencies associated with States; two industries; five industrial associations; and one private organization representing industry. The commenters primarily focused on actual deadlines and permitting authority response time.

Applicants for permits to discharge storm water into the waters of the United States from a construction site would normally be required to submit permits in the same time frame as new sources and new discharges. This rulemaking requires permit applications from such sources to be submitted at least 180 days prior to the date on which the discharge is to commence. Four commenters agreed with the application deadline of 180 days prior to commencement of discharge. Three commenters felt it would be difficult to apply 180 days prior to when the discharge was to begin. Three commenters recommended shortening the time period to 90 days. Numerous other commenters were concerned over delays during the permitting authority's review of the permit application. The commenters requested that a maximum response time be set in the regulation. Suggested maximum response times were 90 and 30 days.

In response to these comments, EPA has changed the application deadline for construction permits from at least 180 days prior to discharge to at least 90 days prior to the date when construction is to commence. This change reflects EPA's recognition of the nature of construction operations in that developers/builders may not be aware of projects 180 days before they are scheduled to begin.

Numerous commenters expressed concern over who should be responsible for applying for the permit. Two commenters felt the owner should be responsible so that construction bid documents can include the storm water management requirements and to avoid confusion among multiple subcontractors. One commenter thought that either the owner/developer, or general contractor should be responsible. Another commenter suggested that the designer should obtain the permit which would allow all necessary erosion controls to be part of the project plan. Several commenters requested that the responsibility simply be more clearly defined.

In response to these comments, EPA would clarify that the operator will generally be responsible for submitting the permit application. Under existing regulations at § 122.21(b), when a facility is owned by one person but operated by another, then it is the duty of the operator to apply for the permit. Due to the temporary nature of construction activities, EPA believes that the operator is the most appropriate person to be responsible for both short and long term best management practices included on the site. EPA considers the term "operator" to include a general contractor, who would generally be familiar enough with the site to prepare the application or to ensure that the site would be in compliance with the permit requirements. General contractors, in many cases, will often be on site coordinating the operation among his/her staff and any subcontractors. Furthermore, the operator/general contractor would be much more familiar with construction site operations than the owner and should be involved in the site planning from its initial stages. The application requirements in today's rule are designed to provide flexibility in developing controls to reduce pollutants in storm water discharges from construction sites. A significant aspect to this is the role of State and local authorities in control of construction storm water discharges. Sixty-three commenters addressed the question of what the role of State and local authorities should be. Most of these commenters supported local government control of construction discharges and that qualified State programs should satisfy Federal requirements.

Many commenters representing municipalities, States, and industry, felt that local government should have full control over construction storm water *48035 discharges, either under existing programs or those required by their municipal permit. EPA agrees with these comments as far as discharges through municipal storm sewers are concerned. EPA is requiring municipalities that are required to submit municipal permit applications under this regulation to describe their program for controlling storm water discharges from construction activities into their separate storm sewers. It is envisioned that municipalities will have primary responsibility over these discharges through NPDES municipal storm water permits. However, EPA also plans to cover such discharges under general permits to be promulgated in the near future.

In response to several comments that the regulation should provide flexibility for qualified State programs to satisfy Federal requirements, the application requirements recognize that many States have implemented erosion and sediment control programs. The permit application requires a brief description of these programs. This is intended to ensure consistency between NPDES permit requirements and other State controls. Permit applicants will be in the best position to pass on this site-specific information to the permitting authority. States or Federal NPDES authorities will have the ability to exercise authority over these discharges as will other State and local authorities responsible for construction. EPA envisions NPDES permitting efforts will be coordinated with any existing programs.

The proposed rule requested comments on appropriate measures to reduce pollutants in construction site runoff. Numerous commenters representing municipalities, States, and industry responded. Some commenters recommended specific best management practices (BMPs) whereas others suggested ways in which the measures should be incorporated into the program. One commenter suggested that EPA establish design and performance standards for appropriate BMPs. One State commenter recommended requiring a schedule or sequence for use of BMPs. A municipality suggested developing guidance on erosion control at construction sites and disseminating the guidance to educate contractors and construction workers in proper erosion control techniques. The Agency is continuing to review these recommendations for the purposes of permit development and issuance.

Another commenter suggested that further research be done to determine the effectiveness of particular BMPs in reducing pollutants in construction site runoff. EPA agrees that more research and studies can be undertaken to develop methodologies for more effective storm water controls and will continue to look at these concerns pursuant to section 402(p)(5) studies. However, EPA is convinced that enough information, technology, and proven BMP's are available to address these discharges in this regulation.

Specific BMPs suggested by the commenters include: wheel washing; locked exit roadways, street cleaning methods which exclude sheet washing; clearing and grading codes; construction standards; riparian corridors; solids retention basins; soil erosion barriers; selected excavation; adequate collection systems; vegetate disturbed areas; proper application of fertilizers; proper equipment storage; use of straw bales and filter fabrics; and use of diversions to reduce effective length of slopes. EPA is continuing to evaluate these suggestions for developing appropriate permit conditions for construction activity.

b. Administrative Burdens. Many commenters representing municipalities, States, and industry commented on the administrative burdens of individually permitting each construction site discharging to waters of the United States. The extensive use of general permits for storm water discharges from construction activities that are subject to NPDES requirements is anticipated to minimize administrative delays associated with permit issuance. Many commenters strongly endorsed extensive use of general permits. In addition the Agency will provide as much assistance as possible for developing appropriate permit conditions.

Many commenters responded to the use of acreage limits in determining which construction sites are required to submit a permit application, including several cities, counties and States. Some commenters generally supported the use of an acre limit. Many commenters suggested increasing the acreage limit. Several suggested using a five acre limit for both residential and nonresidential development. Others suggested greater acreage as the cutoff. Two commenters concurred with the proposed limit of one acre/five acres and one commenter suggested lowering the residential limit to one acre.

Other factors were suggested as a means to create a cutoff for requiring permit applications. Several commenters suggested exempting construction that would be completed with a certain time frame, such as construction of less than 12 months. EPA believes that this is inappropriate because some construction can be intensive and expansive, but nonetheless take place over a short period of time, such as a parking lot. One commenter suggested basing the limit on the quantity of soil moved, i.e., cubic yards. In response, this approach would not be particularly helpful since removal of soil will not necessarily relate to the amount of land surface disturbed and exposed to the elements. Another commenter suggested that where there is single family detached housing construction that should trigger applications as well as the proposed acreage limit. This would not be appropriate since EPA is attempting to focus only on those construction activities that resemble industrial activity. After considering these and similar comments EPA has limited the definition of "storm water discharge associated with industrial

activity” by exempting from the definition those construction operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale. In considering the appropriate scope of the definition of storm water discharge associated with industrial activity as it relates to construction activities, EPA recognized that a wide variety of factors can affect the water quality impacts associated with construction site runoff, including the quality of receiving waters, the size of the area disturbed, soil conditions, seasonal rainfall patterns, the slope of area disturbed, and the intensity of construction activities. These factors will be considered by the permit writer when issuing the permit. However, as noted above, EPA views such site-specific factors to be too difficult to define in a regulatory framework that is national in scope. For example, attempting to adjust permit application triggers based upon a myriad of regional rainfall patterns is not a practical solution. However, permit conditions adjusted for specific geographical areas may be appropriate.

Under the December 7, 1988, proposal the definition of industrial activity exempted: construction operations that resulted in the disturbance of less than one acre total land area which was not part of a larger common plan of development or sale; or operations for single family residential projects, including duplexes, triplexes, or quadruplexes, that result in the disturbance of less than five acre total land areas which were not part of a larger common plan of development or sale. EPA distinguished between single family residential development and *48036 other commercial development because other commercial development is more likely to occur in more densely developed areas. Also, it was reasoned that other commercial development provides a more complete opportunity to develop controls that remain in place after the construction activity is completed, since continued maintenance after the permit has expired, is more feasible.

However, EPA has decided to depart from the proposal and use an unqualified five acre area in today's final rule. This limit has been selected, in part, because of administrative concerns. EPA recognizes that State and local sediment and erosion controls may address construction activities disturbing less five acres for residential development; the five acre limit in today's rule is not intended to supersede more stringent State or local sediment and erosion controls. In light of the comments, EPA is convinced that the acreage limit is appropriate for identifying sites that are amount to industrial activity. Several comments suggested higher acreage limits without giving a supporting rationale except administrative concerns. Several commenters agreed that the five acre limit is suitable, but again without specifying why they agreed. EPA is convinced, however, that the acreage limits as finalized in today's rule reflect an earth disturbance and/or removal effort that is industrial in magnitude. Disturbances on large tracts of land will employ more heavy machinery and industrial equipment for removing vegetation and bedrock.

For construction facilities that are not included in the definition of storm water discharge associated with industrial activity, EPA will consider the appropriate procedures and methods to reduce pollutants in construction site runoff under the studies authorized by section 402(p)(5) of the CWA. EPA will also consider under section 402(p)(5) appropriate procedures and methods during post-construction for maintaining structural controls developed pursuant to NPDES permits issued for storm water discharges associated with industrial activity from construction sites.

Numerous commenters requested clarification as to whether permits for storm water discharges from construction activities at an industrial facility are required. EPA is requiring permits for all storm water discharges from construction activities where the land disturbed meets the requirements established in § 122.26(b)(14)(x) and which discharge into waters of the United States. The location of the construction activity or the ultimate land use at the site does not factor into the analysis.

G. Municipal Separate Storm Sewer Systems

1. Municipal Separate Storm Sewers

Today's rule defines “municipal separate storm sewer” at § 122.26(b)(8) to include any conveyance or system of conveyances that is owned or operated by a State or local government entity and is designed for collecting and conveying storm water which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. It is important to note that today's permit application requirements for discharges from municipal separate storm sewer systems serving a population of 100,000 or more do not apply to discharges from combined sewers (systems designed as both a sanitary sewer and a storm sewer). For purposes of calculating whether a municipal separate storm sewer system meets the large or medium population criteria, a municipality may petition to have the population served by a combined sewer deducted from the total population. Section 122.26(f) of today's rule describes this procedure.

EPA requested comments on whether different language for the definition of municipal separate storm sewer would clarify responsibility under the NPDES permit system. Comments were also requested on whether the definition needed to be clarified by explicitly stating that municipal streets and roads with drainage systems (curb and gutter, ditches, etc.) are part of the municipal storm sewer system, and that the owners or operators of such roads are responsible for such discharges. Numerous comments were received by EPA on this issue. Some commenters questioned whether road culverts and road ditches were municipal separate storm sewers, while others specifically recommended that further clarifying language should be added so that owners and operators of roads and streets understand that they are covered by this regulation. In light of these comments, EPA has clarified that municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that discharge into the waters of the United States are municipal separate storm sewers. One commenter asked if "other wastes" in the proposed definition of municipal separate storm sewer (40 CFR 122.26 (b)(8)(i)) included storm water. In response, EPA has added "storm water" to this definition in order to clarify that the rule addresses such systems.

EPA requested comments on whether legal classifications such as "storm sewers that are not private (e.g. public, district or joint district sewers)" would provide a clearer definition of municipal separate storm sewer than an owner or operator criterion, especially for the purpose of determining responsibility under the NPDES program. Most commenters agreed that the owner/operator concept, and the additional language noted above, is sufficient for this purpose. EPA also requested comments on to what extent the owner/operator concept should apply to municipal governments with land-use authority over lands which contribute storm water runoff to the municipal storm sewer system, and how the responsibility should be clarified. In response to comments on this point, EPA has addressed these concerns in the context of clarifying what municipal entities are responsible for applying for a permit covering storm water discharges from municipal systems in section VI.H. below.

One commenter expressed a desire for clarification as to whether conveyances that were once used for the conveyance of storm water, but are no longer used in that manner, are covered by the definition. EPA emphasizes that this rulemaking only addresses conveyances that are part of a separate storm sewer system that discharges storm water into waters of the United States.

One commenter stated that if EPA intends to regulate roadside collection systems then EPA must repropose since these were not considered by the public. EPA disagrees with this comment since one of the options specifically addressed the inclusion of roadside drainage systems and roads in the definition of municipal separate storm sewer system. In addition, the public recognized the issue in comments on the proposal. EPA would note that several commenters specifically endorsed EPA's inclusion of these conveyances.

2. Effective Prohibition on Non-Storm Water Discharges

Section 402(p)(3)(B)(ii) of the amended CWA requires that permits for discharges from municipal storm sewers shall include a requirement to effectively prohibit non-storm water discharges into the storm sewers. Based on the legislative history of section 405 of the WQA, EPA does not interpret the effective prohibition on non-storm water discharges to municipal separate storm sewers to apply to discharges that are not composed entirely of storm water, as long as such discharge has been issued a separate NPDES permit. Rather, ^{*48037} an "effective prohibition" would require separate NPDES permits for non-storm water discharges to municipal storm sewers. In many cases in the past, applicants for NPDES permits for process wastewaters and other non-storm water discharges have been granted approval to discharge into municipal separate storm sewers, provided that the permit conditions for the discharge are met at the point where the discharge enters into the separate storm sewer. Permits for such discharges must meet applicable technology-based and water-quality based requirements of Sections 402 and 301 of the CWA. If the permit for a non-storm water discharge to a municipal separate storm sewer contains water-quality based limitations, then such limitations should generally be based on meeting applicable water quality standards at the boundary of a State established mixing zone (for States with mixing zones) located in the receiving waters of the United States.

All options will be considered when an applicant applies for a NPDES permit for a non-storm water discharge to a municipal separate storm sewer. In some cases, permits will be denied for discharges to storm sewers that are causing water quality problems in receiving waters. However, not all discharges present such problems; and in these cases EPA or State permit writers may allow such discharges to municipal separate storm sewers within appropriate permit limits.

Today's rule has two permit application requirements that are designed to begin implementation of the effective prohibition. The first requirement discussed in VI.H.6.a., below, addresses a screening analysis which is intended to provide sufficient information to develop priorities for a program to detect and remove illicit discharges. The second provision, discussed in VI.H.7.b., requires municipal applicants to develop a recommended site-specific management plan to detect and remove illicit discharges (or ensure they are covered by an NPDES permit) and to control improper disposal to municipal separate storm sewer systems.

Several commenters suggested that either the definition of "storm water" should include some additional classes of nonprecipitation sources, or that municipalities should not be held responsible for "effectively prohibiting" some classes of nonstorm water discharges into their municipal storm sewers. The various types of discharges addressed by these comments include detention and retention reservoir releases, water line flushing, fire hydrant flushing, runoff from fire fighting, swimming pool drainage and discharge, landscape irrigation, diverted stream flows, uncontaminated pumped ground water, rising ground water, discharges from potable water sources, uncontaminated waters from cooling towers, foundation drains, non-contact cooling water (such as heating, ventilation, air conditioning (HVAC) water that POTWs require to be discharged to separate storm sewers rather than sanitary sewers), irrigation water, springs, roofdrains, water from crawl space pumps, footing drains, lawn watering, individual car washing, flows from riparian habitats and wetlands. Most of these comments were made with regard to the concern that these were commonly occurring discharges which did not pose significant environmental problems.

EPA disagrees that the above described flows will not pose, in every case, significant environmental problems. At the same time, it is unlikely Congress intended to require municipalities to effectively prohibit individual car washing or discharges resulting from efforts to extinguish a building fire and other seemingly innocent flows that are characteristic of human existence in urban environments and which discharge to municipal separate storm sewers. It should be noted that the legislative history is essentially silent on this point. Accordingly, EPA is clarifying that section 402(p)(3)(B) of the CWA (which requires permits for municipal separate storm sewers to 'effectively' prohibit non-storm water discharges) does not require permits for municipalities to prohibit certain discharges or flows of nonstorm water to waters of the United States through municipal separate storm sewers in all cases. Accordingly, § 122.26(d)(2)(iv)(B)(1) states that the proposed management program shall 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; the program description shall address the following categories of non-storm water discharges or flows only 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 waters. Program descriptions shall address discharges from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States."

However, the Director may include permit conditions that either require municipalities to prohibit or otherwise control any of these types of discharges where appropriate. In the case of fire fighting it is not the intention of these rules to prohibit in any circumstances the protection of life and public or private property through the use of water or other fire retardants that flow into separate storm sewers. However, there may be instances where specified management practices are appropriate where these flows do occur (controlled blazes are one example).

Conveyances which continue to accept other "non-storm water" discharges (e.g. discharges without an NPDES permit) with the exceptions noted above do not meet the definition of municipal separate storm sewer and are not subject to section 402(p)(3)(B) of the CWA unless the non-storm water 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. For example, combined sewers which convey storm water and sanitary sewage are not separate storm sewers and must comply with permit application requirements at 40 CFR 122.21 as well as other regulatory criteria for combined sewers.

3. Site-Specific Storm Water Quality Management Programs for Municipal Systems

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.

When enacting this provision, Congress was aware of the difficulties in regulating discharges from municipal ^{*48038} 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." [Vol. 132 Cong. Rec. S16425 (daily ed. Oct. 16, 1986)].

A shift towards comprehensive storm water quality management programs to reduce the discharge of pollutants from municipal separate storm sewer systems is appropriate for a number of reasons. First, discharges from municipal storm sewers are highly intermittent, and are usually characterized by very high flows occurring over relatively short time intervals. For this reason, municipal storm sewer systems are usually designed with an extremely high number of outfalls within a given municipality to reduce potential flooding. Traditional end-of-pipe controls are limited by the materials management problems that arise with high volume, intermittent flows occurring at a large number of outfalls. Second, the nature and extent of pollutants in discharges from municipal systems will depend on the activities occurring on the lands which contribute runoff to the system. Municipal separate storm sewers tend to discharge runoff drained from lands used for a wide variety of activities. Given the material management problems associated with end-of-pipe controls, management programs that are directed at pollutant sources are often more practical than relying solely on end-of-pipe controls.

In past rulemakings, much of the criticism of the concept of subjecting discharges from municipal separate storm sewers to the NPDES permit program focused on the perception that the rigid regulatory program applied to industrial process waters and effluents from publicly owned treatment works was not appropriate for the site-specific nature of the sources which are responsible for the discharge of pollutants from municipal storm sewers.

The water quality impacts of discharges from municipal separate storm sewer systems depend on a wide range of factors including: The magnitude and duration of rainfall events, the time period between events, soil conditions, the fraction of land that is impervious to rainfall, land use activities, the presence of illicit connections, and the ratio of the storm water discharge to receiving water flow. In enacting section 405 of the WQA, Congress recognized that permit requirements for municipal separate storm sewer systems should be developed in a flexible manner to allow site-specific permit conditions to reflect the wide range of impacts that can be associated with these discharges. The legislative history accompanying the provision explained that "[p]ermits for discharges from municipal separate stormwater systems * * * must include a requirement to effectively prohibit non-stormwater discharges into storm sewers and controls to reduce the discharge of pollutants to the maximum extent practicable, * * * These controls may be different in different permits. All types of controls listed in subsection [(p)(3)(C)] are not required to be incorporated into each permit" [Vol. 132 Cong. Rec. H10576 (daily ed. October 15, 1986) Conference Report]. Consistent with the intent of Congress, this rule sets out permit application requirements that are sufficiently flexible to allow the development of site-specific permit conditions.

Several commenters agreed with this approach. One municipality recommended that there be as much flexibility as possible so that the permitting authority can work with each municipality in developing meaningful long-term goals with plans for improving storm water quality. This commenter noted that too many specific regulations that apply nationwide do not take into consideration the climatic and governmental differences within the States. EPA agrees that as much flexibility as possible should be incorporated into the program. However, flexibility should not be built into the program to such an extent that all municipalities do not face essentially the same responsibilities and commitment for achieving the goals of the CWA. EPA believes that these final regulations build in substantial flexibility in designing programs that meet particular needs, without abandoning a nationally consistent structure designed to create storm water control programs.

4. Large and Medium Municipal Storm Sewer Systems

During the 1987 reauthorization of the CWA, Congress established a framework for EPA to implement a permit program for municipal separate storm sewers and establishing phased deadlines for its implementation. The amended CWA establishes priorities for EPA to develop permit application requirements and issue permits for discharges from three classes of municipal separate storm sewer systems. The CWA requires that NPDES permits be issued for discharges from large municipal separate storm sewer systems (systems serving a population of more than 250,000) by no later than February 4, 1991. Permits for discharges from medium municipal separate storm sewer systems (systems serving a population of more than 100,000, but less than 250,000) must be issued by February 4, 1992. After October 1, 1992, the requirements of sections 301 and 402 of the CWA are restored for all other discharges from municipal separate storm sewers.

The priorities established in the Act are based on the size of the population served by the system. Municipal operators of these systems are generally thought to be more capable of initiating storm water programs and discharges from municipal separate storm sewers serving larger populations are thought to present a higher potential for contributing to adverse water quality impacts. NURP and other studies have verified that the event mean concentration of pollutants in urban runoff from residential and commercial areas remains relatively constant from one area to another, indicating that pollutant loads from urban runoff strongly depend on the total area and imperviousness of developed land, which in turn is related to population.

The term "municipal separate storm sewer system" is not defined by the Act. By not defining the term, Congress intended to provide EPA discretion to define the scope of municipal systems consistent with the objectives of developing site-specific management programs in NPDES permits. EPA considered two key issues in defining the scope of municipal separate storm sewer system: (1) What is a reasonable definition of the term "system," and (2) how to determine the number of people "served" by a storm sewer system. EPA found these two issues to be intertwined. Different approaches to defining the scope of a system allowed for greater or lesser certainty in determining the population served by the system.

In the December 7, 1988, proposal, EPA described seven options for defining "municipal separate storm sewer system." In developing these options the EPA considered:

- The inter-jurisdiction complexities associated with municipal governments;
- The fact that many municipal storm water management programs have traditionally focused on water quantity ^{*48039} concerns, and have not evaluated water quality impacts of system discharges or developed measures to reduce pollutants in such discharges;
- The advantages of developing system-wide storm water management programs for municipal systems;
- The geographic basis necessary for planning of comprehensive management programs to reduce pollutants in discharges from municipal separate storm sewers to the maximum extent practicable;
- The geographic basis necessary to provide flexibility to target controls on areas where water quality impacts associated with discharges from municipal systems are the greatest and to provide an opportunity to develop cost effective controls;
- The need to establish a reasonable number of permits for municipal systems during the initial phases of program development that will provide an adequate basis for a storm water quality management program for over 13,000 municipalities after the October 1, 1992 general prohibition on storm water permits expires; and
- Congressional intent to allow the development of jurisdiction-wide, comprehensive storm water management programs with priorities given to the most heavily populated areas of the country.

a. Overview of Proposed Options and Comments. The December 7, 1988, proposal requested comment on seven options for defining large and medium municipal separate storm sewer system. With the addition of a watershed-based approach suggested by certain commenters, eight options or approaches were addressed by the over 200 commenters on this issue: Option 1—systems owned or operated by incorporated places augmented by integrated discharges; Option 2—systems owned or operated by incorporated places augmented with significant other municipal discharges; Option 3—systems owned or operated by

counties; Option 4—systems owned and operated by States or State departments of transportation; Option 5—systems within the boundaries of an incorporated place; Option 6—systems within the boundaries of counties; Option 7—systems in census designated urbanized areas; and Option 8—systems defined by watershed boundaries.

Generally, these options can be classified into two categories. The first category of options, Options 1, 2 and 3, define municipal systems in terms of the municipal entity which owns or operates storm sewers within municipal boundaries of the requisite population. The second category of options would define municipal systems on a geographic basis. Under Options 4, 5, 6, 7 and 8 all municipal separate storm sewers within the specified geographic area would be part of the municipal system, regardless of which municipal entity owns or operates the storm sewer. EPA did not propose to define the scope of a municipal separate storm sewer system in engineering terms because of practical problems determining the boundaries of and the populations served by "systems" defined in such a manner. In addition an engineering approach based on physical interconnections of storm sewer pipes by itself does not provide a rational basis for developing a storm water program to improve water quality where a large number of individual storm water catchments are found within a municipality.

In the December 7, 1988, proposal, EPA favored those options that relied primarily on the municipal entity which owns or operates or otherwise has jurisdiction over storm sewers. These options were preferred because it was anticipated that the administrative complexities of developing the permit programs would be reduced by decreasing the number of affected municipal entities. However, most commenters were not satisfied that such an approach would reduce administrative burdens or complexities.

The diversity of arguments and rationales offered in comments justifying the selection of particular option, or combinations thereof, were generally a function of geographic, climatic, and institutional differences around the country. As such, there was little substantive agreement with how this program should be implemented as far as defining large and medium municipal separate storm sewer systems. Of all the options, Option 1 generally received the most favorable comment. However, the overwhelming majority of comments suggested different options or other alternatives. Having reviewed the comments at length, EPA is convinced that the definition of municipal separate storm sewers should possess elements of several of the options enumerated above and a mechanism that enables States or EPA Regions to define a system that best suits their various political and geographical conditions.

The following comments were the most pervasive, and represent those issues and concerns of greatest importance to the public: (1) The approach chosen initially must be realistic and achievable administratively; (2) the definition must be flexible enough to accommodate development of the program on a watershed basis, and incorporate elements of existing programs and frameworks and regional differences in climate, geography, and political institutions; (3) permittees must have legal authority and control over land use; (4) discharges from State highways, identified as a significant source of runoff and pollutants, should be included in the program and combined in some manner with one or more of the other options; (5) the definition should address how the inclusion of interrelated discharges into the municipal separate storm sewer system are timed, decided upon, dealt with, etc.; (6) any approach must address the major sources of pollutants; (7) development of co-permittee management plans must be coordinated or developed on a regional basis and in the same time frame—fragmented or balkanized programs must be avoided; (8) municipalities should be regulated as equitably as possible; (9) flood control districts should be addressed as a system or part of a system; (10) the definition must conform to the legal requirements of the Clean Water Act; and (11) the definition should limit the number of co-permittees as much as possible.

b. Definition of large and medium municipal separate storm sewer system. A combination of the options outlined in the 1988 proposal would address most of these concerns, while achieving a realistic and environmentally beneficial storm water program. Accordingly, EPA has adopted the following definition of large and medium municipal separate storm sewer systems. Large and medium separate storm sewer systems are municipal separate storm sewers that:

(i) Are located in an incorporated place with a population of 100,000 or more or 250,000 or more as determined by the latest Decennial Census by the Bureau of Census (see appendices F and G of part 122 for a list of these places based on the 1980 Census);

(ii) Are located within counties having areas that are designated as urbanized areas by latest decennial Bureau of Census estimates and where the population of such areas exceeds 100,000, after the population in the incorporated places, townships or towns within such counties is excluded (see appendices H and I for a listing of these counties based on the 1980 census) (incorporated places, towns, and townships within these counties are excluded from permit application requirements unless they fall under paragraph (i) or are designated under paragraph (iii)); or (iii) are owned or *48040 operated by a municipality other than those described in paragraph (i) or (ii) 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 paragraphs (i) or (ii). 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 subparagraph (i);
- (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.

(iv) The Director may, upon petition, designate as a system, any 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 (i), (ii), and (iii).

Under today's rule at § 122.26(a)(3)(iii) the regional authority shall be responsible for submitting a permit application under the following guidelines: 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; 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; each of the operators of municipal separate storm systems described in paragraphs 122.26(b)(4) (i), (ii), and (iii) and (7)(i), (ii), and (iii), that are under the purview of the designated regional authority, shall comply with the application requirements of § 122.26(d).

As noted above, the finalized definition of large and medium municipal separate storm sewer system is combination of the approaches as proposed. (In the following discussion "paragraph (i)" refers to §§ 122.26 (b)(4)(i) and (b)(7)(i); "paragraph (ii)" refers to §§ 122.26(b)(4)(ii) and (b)(7)(ii); "paragraph (iii)" refers to §§ 122.26 (b)(4)(iii) and (b)(7)(iii); and "paragraph (iv)" refers to §§ 122.26 (b)(4)(iv) and (b)(7)(iv)). Paragraph (i) originates from proposed Option 5 (boundaries of incorporated places); paragraph (ii) originates from Option 6 (boundaries of counties) and Option 7 (urbanized areas); paragraph (iii) originates from Options 1 and 5; and paragraph (iv) is an outgrowth of comments on all options, especially Option 4 (State owned systems/State highways) and Option 8 (watersheds).

This definition creates a system by virtue of the fact that storm sewers within defined geographical and political areas, and the owner/operators of separate storm sewers in those areas, are addressed or required to obtain permits. Although within these systems, different segments and discharges of storm water conveyances may be owned or operated by different public entities, EPA is convinced by comments that discharges from such conveyances are interrelated to such an extent that all of these conveyances may be properly considered a "system." These comments are identified and discussed in greater detail below.

c. Response to comments. Many commenters urged that the approach taken must be administratively achievable. Option 5 of the proposal (boundaries of incorporated places), which can be equated to paragraphs (i) and (ii) above, was identified by several commenters as the most workable of all the options. Many commenters stated that Option 1 (systems owned or operated by incorporated places) was inappropriate because of special districts and other owners of systems within the incorporated area; and although EPA proposed a designation provision for interrelated discharges in Option 1, commenters advised that it

would be impossible to identify these systems, account for their discharges, and exclude or include them in a timely manner if Option 1 was selected (Option 1 only addresses those systems owned or operated by the incorporated place). The final rule would obviate these concerns, since all the publicly owned sewers within the boundaries of the municipality will be required to be covered by a permit.

Other commenters noted that cities sometimes have storm water conveyances owned or operated by numerous entities. One municipality commented that these problems could be more easily resolved using a unified permit/district wide approach, which the final approach outlined above can accomplish. One county stated that Option 1 of the proposal would result in a permanent balkanization of stormwater programs and that a regional approach focusing on the entire system should be established. Another municipality recommended that all the systems of conveyances within the incorporated city boundaries be issued a permit. In rejecting Option 1 of the proposal, one municipality stated that program inefficiencies would result from implementing a piecemeal program in a contiguous urban environment with different owners and operators. One State conveyed similar concerns. Using a geographical approach, as described in paragraph (i) of the final definition, will best address all of these concerns.

One commenter criticized proposed Option 1 as being contrary to the legal requirements of the WQA, and a further example of EPA's continuing attempt to minimize the scope of a national storm water program. It was noted that the legislative history regarding requirements for large and medium municipal separate storm sewer systems in section 402(p) of the CWA generally does not reference incorporated cities or towns. As a result, the commenter recommended that the term "municipal" in municipal separate storm sewer system refer to separate storm sewers operated by municipal entities meeting the definition of "municipality" in section 502 of the CWA and that the scope of the term "municipal separate storm sewer system" be defined as broadly as possible. This approach would result in defining large and medium municipal separate storm sewer systems to include all municipal separate storm sewers within the 410 counties with a population of 100,000 or more. EPA has adopted the commenter's recommendation to extend the scope of the program to the extent that today's rule covers all municipal separate storm sewers within certain areas rather than only those operated by an incorporated place. EPA disagrees however that it must define the term "system" to include sewers within any municipal boundary of sufficient population with reference to section 502(4). By not providing explicit definitions, section 402(p)(3)(B) of the CWA gives EPA discretion to define how municipal separate storm sewer systems are defined. There is no indication in the language of the CWA or the legislative history that Congress intended that the scope of "municipality" and the scope of "municipal separate storm sewer system" to be identical, particularly since the latter term is not defined in the statute. Furthermore, for the reasons discussed elsewhere in this section, EPA believes that today's definition is a reasonable accommodation of the many conflicting concerns surrounding the proper way to delineate the extent of a *48041 municipal separate storm sewer system serving over 100,000 people.

Several commenters concluded that EPA should be flexible enough to allow the permitting authority broad discretion to establish system wide permits, with flood control districts and/or counties acting as co-permittees with the various incorporated cities within the district boundaries. Commenters expressed concern that Option 1 would not allow for such flexibility.

Arguments that were advanced by commenters in support of proposed Option 1 are equally applicable to paragraph (i), above. Like proposed Option 1, the approach outlined above targets major cities. However, it also has the advantage of addressing municipal separate storm sewer systems which may be interrelated to those owned by the city, a benefit recognized by one municipality that endorsed the selection of proposed Option 5. This will also give the permitting authority more discretion to establish co-permittee relationships.

Paragraph (ii) of the final definition also uses a geographical approach to the definition of municipal storm sewer systems to include municipal storm sewers within urbanized counties. Thus, it closely resembles Option 7 of the proposal. The counties identified in paragraph (ii) have, based on the 1980 Census, a population of 100,000 or more in urbanized, [FN5] unincorporated portions of the county. In the unincorporated areas of these counties (or in the 20 States where the Census recognizes minor civil divisions, unincorporated county areas outside of towns or townships), the county is the primary local government entity. In these cases, the county performs many of the same functions as incorporated cities with a population of 100,000, and is generally expected to have the necessary legal and land use authority in these areas to begin to implement storm water management programs. Due to the urbanized nature of their population, discharges from the municipal separate storm sewers

in these counties will have many similarities to discharges from municipal systems in incorporated cities with a population of 100,000 or more. Addressing these counties in this fashion will not adversely affect small municipalities (incorporated places, towns and townships) within the county, as municipal separate storm sewers that are located in the small incorporated places, townships or towns within these counties are not automatically included as part of the system.

EPA has focused on the unincorporated areas because permit applications cannot be required from systems that serve a population less than 100,000, unless designated. EPA received the comment that if the sewers in incorporated places within such counties were included as part of the system for that county, there would be the potential for systems serving a population less than 100,000 to be improperly subject to permit requirements. EPA agrees with the comment, except that EPA reserves the authority to designate sewers in small incorporated places as part of the system subject to permitting, pursuant to paragraph (iii) of the final definition. Incorporated areas within the identified counties will be required to file permit applications if the population served by the municipal separate storm sewer system is 100,000 or more.

As one commenter noted, the counties addressed by the definition will generally be areas of high growth with a growing tax base that can finance a storm water management program. Numerous counties affected by paragraph (ii) commented on the proposal. Several of these indicated a preference for the county government as the permittee. Others indicated that their county had the ability to perform the functions of the permit applicant and permittee. One county brought to EPA's attention that the county had laid plans for a storm water utility scheduled to be in operation in 1989. Several of the counties supported the use of watersheds, or flexible regional approaches, as the basis for the definition of municipal separate storm sewer systems. The modified definition should satisfy these concerns.

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 municipal system discharges in unincorporated portions of the county, 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. Undeveloped lands of the county are not expected to have many, if any, municipal separate storm sewers.

Paragraphs (i) and (ii) above will help resolve the problems associated with permittees not having adequate land use controls, the legal authority to implement controls, and the ownership of the conveyances. This factor was mentioned by numerous commenters on the proposed options, especially county governments. Under paragraphs (i) and (ii), all publicly owned separate storm sewers within the appropriate municipal boundaries will be defined as part of the municipal system. In many cases, a number of municipal operators of these storm sewers will be responsible for discharges from these systems. Since a number of co-permittees may be addressed in the permits for these discharges, problems associated with the ability to control pollutants that are contributed from interrelated discharges will be minimized. State highways or flood control districts, which may have no land use authority in incorporated cities, will be co-permittees with the city which does possess land use authority. EPA envisions that permit conditions for these systems will be written to establish duties that are commensurate with the legal authorities of a co-permittee. For example, under a permit, a flood control district may be responsible for the maintenance of drainage channels that they have jurisdiction over, while a city is responsible for implementing a sediment and erosion ordinance for construction sites which relates to discharges to the drainage channel. Confusion over ownership of conveyances or systems, at least for the purposes of determining whether they require a permit, will be minimized since all conveyances will be covered. Similarly, under paragraph (ii), the affected counties are expected to have the necessary legal and land use authority to implement programs and controls in unincorporated, urbanized areas because the county government is the primary political or governing entity in these geographical areas.

Many commenters from all levels of State and local government expressed concern about controlling pollutants from State highways. Paragraphs (i) and (ii) will result in discharges from separate storm sewers serving State highways and other highways through storm sewers that are located within incorporated places with the appropriate population or highways in unincorporated portions of specified counties being included as part of the large or medium municipal separate storm sewer system, since all municipal separate storm sewers within the boundaries of these political entities are included. Paragraph (iv) can facilitate *48042 the submission of a permit application for storm sewers operated as part of an entire State highway system. Paragraph (iv) would allow an entire system in a geographical region under the purview of a State agency (such as a State Department of

Transportation) to be designated, where all the permit application requirements and requirements established under § 122.26(a)(iii)(C) can be met.

Paragraphs (i) and (ii) can effectively deal with many of the major sources of pollutants. One municipality noted that Option 5 (paragraph (i)) would require all systems in the incorporated boundaries to obtain permits and institute control measures, rather than just the few owned or operated by incorporated cities. Another municipality noted that this approach could deal with many of the regional variations in sources of pollution. Many commenters, including environmental groups, believed that proposed Option 3 (systems owned or operated by counties), Option 6 (systems within the boundaries of counties), and Option 7 (system in urbanized areas) were good approaches because more sources of pollution would be addressed. It was also maintained that Options 3, 6 and 7 could incorporate watershed planning which, in the view of some commenters, is the only effective way to address pollutants in storm water.

Commenters noted that addressing counties and urbanized areas would focus attention on developing areas which would otherwise be left out in the initial phases of permitting. One commenter noted that most new development in large urbanized areas occurs outside of core cities (incorporated cities with a population of 100,000 or more). Newly developing areas provide opportunities for installing pollutant controls cost effectively. EPA agrees with these comments and notes that paragraph (ii) addresses a significant number of counties with highly developed or developing areas.

However, EPA is convinced that addressing all counties or urbanized areas in the initial phases of the storm water program is ill-advised. Commenters noted that some counties have inappropriate or nonexistent governmental structures, and that a program that addressed all counties in the country with a population of 100,000 or more would be unmanageable, because too many municipal entities nationwide would be involved in the program initially. Commenters advised that defining municipal storm sewer systems solely in terms of the boundaries of census urbanized areas (Option 7) would result in systems which did not correspond to jurisdictions that are in a position to implement a storm water programs. Thus, EPA has modified Option 7 and combined it with Option 6 to create paragraph (ii) above.

Paragraph (iii) incorporates a designation authority such that municipalities that own or operate discharges from separate storm sewers systems other than those described in paragraph (i) or (ii) may be designated by the Director as part of the large or medium municipal separate storm sewer system due to the interrelationship between the other discharges of the designated storm sewer and the discharges from the large or medium municipal separate storm sewers. In making this determination the physical interconnections between the municipal separate storm sewers, the location of discharges from the designated municipal separate storm sewer relative to discharges from large or medium municipal separate storm sewers, the quantity and nature of pollutants discharged to waters of the United States, the nature of the receiving waters, or other relevant factors may be considered.

Comments indicated that the designation authority as proposed and described above should be retained. One State noted that this approach gives the most flexibility in making the case-by-case designations, while also delineating in sufficient detail what criteria are used to make the determination. This commenter was concerned about being able to regulate many of the interrelated discharges from counties surrounding incorporated cities.

Paragraph (iv) of the final definition allows the permitting authority, upon petition, to designate as a medium or 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 paragraphs (i), (ii), (iii).

Paragraph (iv) was added to the final definitions to respond to a variety of concerns of commenters. One of the prime concerns of commenters was that the definition of large and medium municipal separate storm sewer systems must be flexible enough to accommodate: Programs on a watershed basis, existing storm water programs and frameworks and regional differences in climate, geography, and political institutions. Some States were particularly expressive regarding this concern. One State maintained that an inflexible program could totally disrupt ongoing State efforts. Other commenters urged that the regulation encourage the establishment of regional storm water authorities or other mechanisms that can deal with storm water quality on

a watershed basis. One State proposed defining the municipal separate storm sewer system to include all municipal separate storm sewers within a core incorporated place of 100,000 or more, and all surrounding incorporated places within the State defined watershed. One of the State water districts advised that the regulations should be flexible enough to allow regional water quality boards to apply the regulations geographically. One national association expressed concern that existing institutional arrangements for flood control and drainage would be ignored, while another warned against fostering a proliferation of inconsistent patchwork programs based on arbitrary definitions and jurisdictions which bear no relationship to water quality.

EPA is convinced that the mechanism described in paragraph (iv) provides a means whereby the mechanisms and concepts identified above can be utilized or created in appropriate circumstances. In addition, § 122.26(f)(4) provides a means for State or local government agencies to petition the Director for the designation of regional authorities responsible for a portion of the storm water program. For example, some States or counties may currently or in the near future have regional storm water management authorities that have the ability to apply for permits under today's rule and carry out the terms of the permit. Some of these authorities may encompass within their jurisdiction large or medium municipal separate storm sewer systems as defined in today's rule. EPA wishes to encourage such entities to assume the role as permittee under today's rule. That is the purpose of paragraph (iv). Such authorities may petition the Director to assume such a role.

Many commenters expressed the view that municipal management plans must be coordinated or developed among co-permittees on a regional basis and in the same timeframe. Paragraphs (i), (iii) and (iv) would bring in all appropriate municipal entities with jurisdiction over a specified geographical area in the same timeframe. Several commenters, including one State, noted proposed Option 1 would lead to fragmented, ill-coordinated programs. Paragraphs (i), (iii), and (iv) do not suffer this drawback *48043 to the same extent since all the municipal separate storm sewers are addressed within the incorporated place, instead of only those owned or operated by the incorporated place.

Equal treatment of municipalities within a watershed or other specified area was a major subject of comment. Many commenters urged that a degree of fairness could be achieved by requiring permit applications, and the concomitant expenditure of municipal dollars and resources, from all municipalities within an entire urban area that contributes to storm water pollution, rather than from a discrete system within an arbitrary political boundary. Paragraph (i), especially when coupled with paragraphs (ii), (iii), and (iv), can best accomplish a more equitable approach, because all owners and operators of municipal separate storm sewers within a system have responsibilities. In addition, some of the areas outside the incorporated city limits which are engaged in expansive urban or suburban development will be brought into the program. Paragraph (iv) will provide a means for State or regional authorities to use existing or emerging mechanisms to set up storm water management programs, and would require multiple agencies either to become regional co-permittees or to be subject to a regional permit.

Paragraphs (i), (ii), (iii), and (iv) could also require flood control districts to be co-permittees, which was a major concern of counties and numerous cities. One municipality stated that the inclusion of flood control districts would greatly reduce the administrative burden required to prepare a single inter-city discharge agreement and would establish a common legal authority to implement the program. Numerous county agencies believed it imperative that flood control districts be brought into a system-wide permit strategy.

Paragraphs (i) and (iii) may not accommodate the concern of several commenters that the number of co-permittees be kept to a minimum. The fact that all the municipal separate storm sewers within the boundaries of the appropriate incorporated places will be addressed dictates that some permits will have several co-permittees. This is a major concern since it goes directly to achieving an effective initial storm water program. There is concern about being able to bring all the co-permittees together under intra-municipal agreements or contracts within regulatory deadlines. This problem would be resolved in the short term by selecting Option 1. However, Option 1 may still require inter-municipal agreements because of the designation authority under § 122.26 (b)(4)(ii) and (b)(7)(ii) of the proposal. In addition, such inter-jurisdictional problems will arise after October 1, 1992 when the moratorium on requiring NPDES permits for discharges from other municipal separate storm sewers ends. Under the permitting goals established by the CWA, multi-jurisdictional storm water programs and agreements cannot be avoided. Despite interest in limiting the number of co-permittees, EPA decided not to adopt Option 1 for the reasons already stated.

Section 402(p)(3)(B)(i) of the amended CWA provides that permits for municipal discharges from municipal storm sewers may be issued on a system-wide or jurisdiction-wide basis. This provision is an important mechanism for developing the comprehensive storm water management programs envisioned by the Act.

Under the permit application requirements of today's rule, if the appropriate co-applicants are identified, one permit application may be submitted for a large or medium municipal separate storm sewer system (see section VI.G.4 above). System-wide permit applications can in turn be used to issue system-wide permits which could cover all discharges in the system.

Where several municipal entities are responsible for obtaining a permit for various discharges within a single system, EPA will encourage system-wide permit applications involving the several municipal entities for a number of reasons. The system-wide approach not only provides an appropriate basis for planning activities and coordinating development, but also provides municipal entities participating in a system-wide application the means to spread the resource burden of monitoring, evaluating water quality impacts, and developing and implementing controls.

The system-wide approach provided in today's rule recognizes differences between individual municipalities with responsibilities for discharges from the municipal system. Today's application rule requires information to be submitted that enables the permit issuing authorities to develop tailored programs for each permittee with responsibility for certain components, segments, or portions of the municipal separate storm sewer system. The permit application requirements allow individual municipal entities, participating in system-wide applications, to submit site specific information regarding storm water quality management programs to reduce pollutants in system discharges as a whole, or from specific points within the system.

In some cases, it may be undesirable for all municipal entities with storm water responsibility within a municipal system to be co-permittees under one system-wide permit. The permit application requirements in today's rule allow individual municipal entities within the system to submit permit applications and obtain a permit for that portion of the storm sewer system for which they are responsible. Thus, several permits may be issued to cover various subdivisions of a single municipal system.

In summary, EPA believes that the definition of municipal storm sewer system adopted in today's rule has several distinct advantages that were identified in comments:

- The definition adopts features of several options;
- The definition targets areas that have the necessary police powers and land use authority to implement the program;
- The definition can utilize watersheds or accommodate existing administrative frameworks and storm water programs;
- The definition provides that all systems within a geographical area including highways and flood control districts will be covered, thereby avoiding fragmented and ill-coordinated programs;
- The definition has flexible designation authority; and
- The definition addresses major sources of pollutants without being overly broad.

H. Permit Application Requirements for Large and Medium Municipal Systems

1. Implementing the Permit Program

Given the differing nature of discharges from municipal separate storm sewer systems in different parts of the country and the varying water quality impacts of municipal storm sewer discharges on receiving waters, today's permit application requirements are designed to lead to the development of site-specific storm water management programs. In order to effectively implement this goal, EPA intends to retain the overall structure of the municipal permit application as proposed in the December 7, 1988, proposal.

2. Structure of the Permit Application

EPA proposed a two-part permit application designed to meet the goal of *48044 developing site-specific storm water quality management programs in NPDES permits. In response to a request for comments on this aspect of the proposal, numerous comments were received. After reviewing these comments, EPA has decided to retain the two-part permit application. Many commenters agreed that the approach as proposed is appropriate for phasing in and developing site specific storm water management programs. One large municipality strongly endorsed the two-part application, stating that it would facilitate the identification of water quality problem areas and the development of priorities for control measures, thereby allowing for more cost-effective program development. Two State agencies expressed the same view, and noted that the two-part approach is reasonable and well structured for efficient development of programs. One large municipality noted it would allow the permit authority and the permit applicant the time needed to gain the knowledge and data to develop site-specific permits. A medium municipality expressed similar views.

Numerous commenters submitted endorsements of a proposal offered by one of the national municipal associations. This approach responded to EPA's request for comments on alternatives to a two-part application process. These comments recommended having permit applicants submit information regarding their existing legal authority, prepare source identification information, describe existing management plans, provide discharge characterization information based on existing data, and prepare a monitoring, characterization and illicit discharge and removal plan in a one-part application. The remaining requirements such as: implementing plans to remove illicit connections, obtaining legal authority, monitoring and characterization, plans for structural controls, preparation of control assessments, preparation of fiscal analysis, and management plan implementation would be part of the permit and take place during the compliance period of the permit. It was argued that this would result in a more orderly development of stormwater management programs while allowing for quick implementation of efforts to eliminate illicit discharges and initiate some BMPs.

After careful review and consideration of these comments, EPA is convinced that this approach would not meet the goals and requirements of section 402 of the Clean Water Act. Section 402(p)(3)(B) of the CWA requires that permits effectively prohibit non-storm water discharges into storm sewers and incorporate controls that reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques, and system design and engineering methods. The above comments suggesting an alternative for achieving this goal are not entirely compatible with these requirements. In light of the language in the statute, permit conditions should do more than plan for controls during the term of the permit. A strong effort to have the necessary police powers and controls based on pollutant data should be undertaken before permits are issued. In short, the one-part application described by these comments would result in permits that would focus too much on preparation and not enough on implementing controls for pollutants.

In comparison, EPA's approach requires municipalities to submit a two-part application over a two year period. Part one of the application would require information regarding existing programs and the means available to the municipality to control pollutants in its storm water discharges. In addition, part one would require field screening of major outfalls to detect illicit connections. Part two of the permit application would require a limited amount of representative quantitative data and a description of proposed storm water management plans. The purpose of the two-part application process is to develop information, in a reasonable time frame, that would build successful municipal storm water management programs and allow the permit writer to make informed decisions with regard to developing permit conditions. This will include initiating efforts to effectively prohibit non-storm water discharges into storm sewers, and initially implementing controls that reduce the discharge of pollutants to the maximum extent practicable, including management practices and control techniques during the term of the permit. Such an approach clearly meets the statutory mandate of section 402(p)(3)(B).

a. Part 1 Application. Part 1 of the permit application is intended to provide an adequate basis for identifying sources of pollutants to the municipal storm sewer system, to preliminarily identify discharges of storm water that are appropriate for individual permits, and to formulate a strategy for characterizing the discharges from municipal separate storm sewer systems. Several commenters supported retaining these components of the application process. The components of part 1 of the permit application include:

- General information regarding the permit applicant or co-applicants (§ 122.26(d)(1)(i));

- A description of the existing legal authority of the applicant(s) to control pollutants in storm water discharges and a plan to augment legal authority where necessary (§ 122.26(d)(1)(ii));
- Source identification information including: a topographic map, description of the historic use of ordinances or other controls which limited the discharge of non-storm water discharges to municipal separate storm sewer systems, the location of known municipal separate storm sewer outfalls, projected growth, location of structural controls, and location of waste disposal facilities (§ 122.26(d)(1)(iii));
- Information characterizing the nature of system discharges including existing quantitative data, the results of a field screening analysis to detect illicit discharges and illegal dumping to the municipal system, an identification of receiving waters with known water quality impacts associated with storm water discharges, a proposed plan to characterize discharges from the municipal storm sewer system by estimating pollutant loads and the concentration of representative discharges, and a plan to obtain representative data (§ 122.26(d)(1)(iv)); and
- A description of existing structural and non-structural controls to reduce the discharge of pollutants from the municipal storm sewer (§ 122.26(d)(1)(v)).

One commenter disagreed that source identification should be made part of the permit application process beyond the identification of major municipal storm sewer outfalls. In reply, EPA is convinced that the other elements of the source identification are critical for identifying sources of pollutants and creating a base of knowledge from which informed decisions about permit conditions and further data requirements can be determined. One county stated that it already had engaged in extensive monitoring and modeling of watersheds and that its programs should be substituted for EPA's. In response, EPA anticipates that information collected under various State, county or city programs that matches the information requirements in this rulemaking may be used by the applicants in submissions under this rulemaking where the requirements of the rule are met. However, because of the divergence in data collection techniques and information collected by *48045 these programs, EPA disagrees that it would be appropriate to accept a substitution in its entirety without tailoring such a program to today's specific information requirements. One municipality noted that municipal systems are not well documented and responsibility for them is in question. In response, EPA notes that the source identification procedure is designed, in part, to address such shortcomings.

Several municipalities suggested that legal authority could be demonstrated by providing EPA with copies of appropriate local ordinances to demonstrate their legal authority and a statement from the city attorney. EPA agrees that these methods are appropriate for making this demonstration.

Several commenters noted that there was adequate existing municipal legal authority to carry out the program requirements or such authority could be obtained by the municipality. Other commenters stated that municipalities possess some authority over certain activities but may not have authority over discharges from roads and construction. Numerous commenters, however, claimed that certain municipalities had no existing legal authority to carry out the permit requirements and that obtaining all the necessary legal authority could take several years due to cumbersome legislative and political processes. In response, part 1 of the permit application will establish a schedule for the development of legal authority that will be needed to accomplish the goals of the permit application and permits. Some municipalities will have more advanced storm water programs with appropriate legal authority or the ability to establish necessary ordinances. Providing an appropriate schedule will not present difficulties in these circumstances. EPA also notes that the definitions of large and medium municipal separate storm sewer systems finalized in today's rule will in many cases result in a number of co-applicants participating in a system wide application. It is anticipated that the development of adequate inter-jurisdictional agreements specifying the various responsibilities of the co-permittees may in some cases be very complex, thereby justifying the development of a schedule to complete the task. For example, clarifying the authority over discharges from roads may present difficulties where a number of municipal entities operate different roads in a given jurisdiction. In other limited cases, the MEP standard for municipal permits may translate into permit conditions that extend the schedule for obtaining necessary legal authority into the term of the permit. These situations will be evaluated on a case-by-case basis by permit issuing authorities.

Numerous commenters supported the field screening analysis as proposed. Comments from three municipalities noted that it would be a cost effective means of identifying problem areas. One municipality noted that illicit connections can be reliably detected by the screening method proposed. In view of these comments EPA has decided to retain this portion of the regulation. However many commenters expressed concern over how the proposed approach would work given the particular circumstances under which some municipal storm water systems are arranged. Several commenters questioned the effectiveness of dry weather monitoring for several reasons, including the shallow depth of some cities' water tables. Accordingly, an alternative approach may be utilized by the municipal permittee, and this is discussed later in section VI.H.3.

Some comments suggested that if any field screening is required that it be done during the term of the permit. EPA believes that field screening should not be done during the term of the permit exclusively. Unless a field screening is accomplished during the permit application phase there will be scant knowledge, if any, upon which illicit connection programs can be established for the term of the permits. EPA views field screening during the application process as an appropriate means of beginning to meet the CWA's requirement of effectively prohibiting non-storm water discharges into municipal separate storm sewers.

The submittal of part 1 of the permit application will allow EPA, or approved NPDES States, to adjust part 2 permit application requirements to assure flexibility for submitting information under part 2, given the site specific characteristics of each municipal storm sewer system.

EPA agrees with the concerns of commenters regarding the estimate of the reduction of pollutant loads from existing management programs. EPA agrees that sufficient data may not be available to establish meaningful estimates. Therefore this component of the proposed part 1 is not a requirement of today's rule.

b. Part 2 Application. Part 2 of the proposed permit application is designed to supplement information found in part 1 and to provide municipalities with the opportunity of proposing a comprehensive program of structural and non-structural control measures that will control the discharge of pollutants, to the maximum extent practicable, from municipal storm sewers. The components of the proposed part 2 of the permit application included:

- A demonstration that the legal authority of the permit applicant satisfies regulatory criteria (§ 122.26(d)(2)(i));
- Supplementation of the source identification information submitted in part 1 of the application to assure the identification of all major outfalls and land use activities (§ 122.26(d)(2)(ii));
- Information to characterize discharges from the municipal system;
- A proposed management program to control the discharge of pollutants to the maximum extent practicable, from municipal storm sewers (§ 122.26(d)(2)(iv));
- Assessment of the performance of proposed controls (§ 122.26(d)(2)(v));
- A financial analysis estimating the cost of implementing the proposed management programs along with identifying sources of revenue § 122.26(d)(2)(vi);
- A description of the roles and responsibilities of co-applicants (§ 122.26(d)(2)(vii)).

One municipality agreed that the assessment of the performance of controls was a critical component of establishing a viable program and one that could be accomplished within the time frame of the permit application deadlines. One commenter suggested that the applicant describe what financial resources are currently available. In response, EPA will require applicants to describe the municipality's existing budget for storm water programs in part 1 of the permit application requirements. This information will be useful to evaluate the municipality's ability to prepare and implement management plans. In response to other comments, this information will also include an overview of the municipality's financial resources and a description of the municipality's budget, including overall indebtedness and assets.

EPA has retained the financial analysis in this portion of the rule on the advice of two municipal commenters, who agreed that this was an important component of establishing a viable program and one that could be accomplished within the time frame of the permit application deadlines. Another commenter noted that this requirement is appropriate to justify a municipality's proposed management plan.

*48046 3. Major Outfalls

In past rulemakings, a controversial issue has been the appropriate sampling requirements for municipal separate storm sewer systems. Earlier storm water rulemakings have been based primarily on the principle that all discharges to waters of the United States from municipal separate storm sewers located in urban areas must be covered by an individual permit. This approach requires that individual permit applications contain quantitative data to be submitted for all such discharges. This approach was criticized because of a potentially unmanageable number of outfalls in some municipal separate storm sewer systems. Most incorporated cities with a population of 100,000 or more do not know the exact number of outfalls from their municipal systems; but based on the comments, the number ranges from 500 to 8,000 or more.

In light of the increased flexibility provided by the WQA and the development of EPA's system-wide approach for regulating municipal separate storm sewer discharges, today's rule will not require submittal of individual permit applications with quantitative data for each outfall of a municipal system. Rather today's rule will encourage system-wide permit applications to provide information suitable for developing effective storm water management programs. Under this approach, not all outfalls of the municipal system will be sampled, but rather more specific and accurate models for estimating pollutant loads and discharge concentrations will be used. The use of these models will require the identification of sources which are responsible for discharging pollutants into municipal separate storm sewers and will not require as much data to calibrate due to the source-specific nature of the model. A number of standard and localized models have been developed for estimating pollutant loads from storm water discharges.

Several commenters support the use of models for developing management plans and estimating pollutant loadings and concentrations. EPA encourages their use where applicable to particular systems.

By adopting an approach that incorporates source identification measures, the amount of quantitative data required to characterize discharges from the municipal system will be reduced because of the increased accuracy of the site-specific models which can be used. Consistent with a system-wide permit application approach, EPA proposed to focus source identification measures on "major outfalls." The proposed definition of major outfalls includes any municipal separate storm sewer outfall that discharges from a pipe with a diameter of more than 36 inches or its equivalent (discharges from a drainage area of more than 50 acres), or for municipal separate storm sewers that receive storm water from lands zoned for industrial activities, an outfall that discharges from a pipe with a diameter of more than 12 inches or its equivalent (discharges from a drainage area of 2 acres or more).

Numerous entities offered comments on this definition. Several commenters concurred with this proposed definition. One commenter maintained that the data collected at such outfalls would be sufficient to estimate pollutant loads as well as concentrations using well calibrated models. Another municipality stated that 50 acres was an excellent approximation for the average drainage area served by a 36-inch storm sewer. Two States and one county supported the definition as proposed. One large municipal entity supported the definition, stating that screening major outfalls could be accomplished with available staff over a three month period. In light of these comments, EPA has decided to retain, in part, the definition as proposed.

Numerous commenters suggested alternative definitions or otherwise disagreed with the proposed definition. Most of these comments expressed concern about the number of outfalls that would have to be tested or screened if the definition was retained. For this reason EPA has decided to limit the total number of major outfalls or equivalent sampling points that have to be tested to 250 or 500 for medium or large systems respectively. This change is discussed in further detail below.

The following are examples of comments that opposed the definition of a "major outfall" as proposed. Several commenters stated that, in the southwest, 6 to 12 foot outfalls are the norm, and that smaller outfalls should not be addressed unless there

is a compelling reason to suspect illicit connections. One commenter suggested a size of 54 inches and 50 acres, while another commenter suggested that 48 inches would be appropriate. One commenter suggested that the diameter for industrial pipes should be 18 inches, while another commenter suggested that 50 acres should be the only criterion.

One commenter noted that pipe size will vary according to rainfall patterns and that a single approach would not work universally. This comment, and other similar points of view as noted herein, convinces that Agency that a more flexible approach is needed to identify field screening and sampling locations. However, EPA is also convinced that a universal standard is necessary for purposes of identifying drainage areas within the municipal system and discrete areas of land use that are drained by certain sized outfalls. This information is critical since these conveyances, and lands they drain, are sources of pollutants to waters of the United States from municipal systems and are properly the subject of appropriate permit conditions.

Many commenters suggested placing a limit on the number of major outfalls addressed during the field screening phase of the permit application. Two municipalities stated that the proposed definition of major outfalls in terms to the pipe diameter was too small and that too many outfalls would be covered. One municipality stated that under the proposed definition, it would have over 4700 "major outfalls," a number viewed as being unacceptably large. Several municipalities argued that they would be penalized for over-design of their storm drain system. One municipality stated field screening of outfalls should be limited to 200 for medium cities and 500 for large cities. Some commenters suggested EPA set a percentage of major outfalls for screening, because all pipes in some municipalities meet the definition of major outfall. One commenter suggested that a sliding scale be used to determine the number of outfalls tested: those with 50 test all, those with 100-200 test 50%, etc. Other commenters suggested a flat percentage of outfalls or flat number such as 100.

4. Field Screening Program

EPA also received several comments in response to the proposed field screening methodology. Among the major concerns were: End of pipe sampling may not be practical and the more appropriate and accessible location is likely to be the nearest upstream manhole; the type of discharge should be the criterion for selecting sampling points as opposed to pipe size; a system wide evaluation is more appropriate than checking each outfall; within some systems, major outfalls or pipe size will not reflect discharges from suspect or old land use areas; efforts should be focused on locations where illicit connections are expected; sites should be determined by looking at sites within drainage basin areas based on land use within those basins; land use and hydrology of the watershed should be the criteria for selecting points; *48047 screening should be performed at locations that will allow for the location of upstream discharges; the focus should be exclusively on drainage areas rather than pipe size, since pipe size will vary with slope; a prescribed percentage of total flow may be more appropriate; state water quality standards should be utilized along with focusing on actual quality in the reaches of a stream.

EPA is convinced by these comments that today's rule should allow applicants to either field screen all major outfalls as proposed (first procedure) or use a second procedure to provide for the strategic location of sampling points to pinpoint illicit connections. EPA agrees with comments that the size of the outfall will not always reflect the chance of uncovering illicit connections or discharges, and that field screening points should be easily accessible.

This second procedure is as follows: field screening points and/or outfalls are 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 major outfall or segment of the storm sewer system. The grid shall be established using the following guidelines and criteria:

- (1) A grid system consisting of perpendicular north-south and east-west lines spaced 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 or major outfalls 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) The assessment and selection of cells shall use the following criteria: 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; land use types;

(6) For medium municipal separate storm sewer systems, no more than 250 cells need have identified field screening points; in large municipal separate storm sewer systems, no more than 500 cells need to have identified field screening points for detecting illicit connections; 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);

(7) Large or medium municipal separate storm sewer systems which are unable to utilize the procedures described in paragraphs (1) through (6) above, because a sufficiently detailed map of the separate storm sewer systems is unavailable, shall field screen at least 250 or 500 major outfalls respectively using the following method: the applicant shall establish a grid system consisting of north-south and east-west lines spaced 1/4 mile apart overlaid on a map of the boundaries of a large or medium municipal entity described at § 122.26(b), thereby creating a series of cells; major outfalls in as many different cells as possible shall be selected until 500 major outfalls (large municipalities) or 250 major outfalls (medium municipalities) are selected; a field screening analysis shall be undertaken at these major outfalls.

The methodology outlined above is in response to public comments which indicated that the field screening and sampling of major outfalls as proposed would lead to insurmountable logistical problems in some municipal systems. EPA believes that the above is an effective approach to pinpointing suspected problem points along a given trunkline or segment of separate storm sewer system. Jurisdictions with no extensive or previous history of monitoring, or lack of an intensive monitoring program can utilize the methods described in establishing a program. Furthermore, the approach will allow for the prioritization of outfalls, sampling points, or areas within the municipality where there are suspected illicit connections or discharges, or other circumstances creating higher concentrations and loadings of pollutants.

Paragraph (7) enables municipalities to select major outfalls without regard to the municipal sewer system map that is required for using the procedure described in paragraphs (1) through (6). However, the applicant must still select outfalls within the cells created by overlaying a 1/4 mile grid over a map of the boundaries of the large or medium municipal entity defined under § 122.26(b), and select major outfalls within as many of those cells as possible, up to 500 (large municipal systems) or 250 (medium municipal systems). In this manner, as many different areas and land uses within the municipal system will be covered by the field screening component of the municipal application.

In order to keep the costs of the program within the anticipated limits of the proposed regulation, the number of outfalls or sampling locations using the grid system is to be limited to 500 for large municipal separate storm sewer systems and 250 for medium municipal separate storm sewer systems.

In response to several comments, EPA has clarified the definition of major outfalls with regard to the words, "pipe with an inside diameter of 36 inches or more or its equivalent" and "a pipe with an inside diameter of 12 inches or more or its equivalent." This definition has been modified to specify that single pipes or single conveyances with the appropriate diameter or equivalent are covered.

EPA's proposal required municipal permit applicants to submit a fiscal analysis of expenditures that will be required in order to implement the proposed management plans required in part 2 of the application. The description of fiscal resources should include a description of the source of the funds. Some commenters felt that a fiscal analysis should only be required during the term of the permit. In response, EPA believes that during the two years of permit application development, the permit applicant should be in a position to submit information on the ability and means for financing storm water management programs during

the term of the permit. EPA views this information as an important means of evaluating the scope of program and whether the permittee will be devoting adequate resources to implementing the program before that program is mapped out in the permit itself.

5. Source Identification

The identification of sources which contribute pollutants to municipal separate storm sewers is a critical step in characterizing the nature and extent of pollutants in discharges and in developing appropriate control measures. Source identification can be useful for providing an analysis of pollutant source contribution and for identifying the relationship between pollutant sources and receiving water quality problems. In cases where end-of-pipe controls alone are not practicable, it is essential to identify the source of pollutants into the municipal storm **48048* sewer systems to support a targeted approach to control pollutant sources.

The relative contribution of pollutants from various sources will be highly site-specific. The first step in developing a targeted approach for controlling pollutants in discharges from municipal storm sewer systems is identifying the various sources in each drainage basin that will contribute pollutants to the municipal storm sewer system.

This rulemaking phases in the source identification requirements of the permit program by establishing minimum objectives in part 1 of the application and by requiring applicants to submit a source identification plan in part 2 of the application to provide additional information during the term of the permit. The minimum source identification requirements of part 1 of the application have been designed to provide sufficient information to provide an initial characterization of pollutants in the discharges from the municipal storm sewer system. EPA realizes that with many large, complex municipal storm sewer systems, it may be difficult to identify all outfalls during the permit application process. Accordingly, EPA is requiring that known outfalls be reported in part 1 of the application. Part 1 of the application will also include: A description of procedures and a proposed program to identify additional major outfalls; the identification of the drainage area associated with known outfalls; a description of major land use classifications in each drainage area, descriptions of soils, the location of industrial facilities, open dumps, landfills or RCRA hazardous waste facilities which discharge storm water to the municipal storm sewer system; and ten year projections of population growth and development activities (population data and development projections will be useful for future predictions of loadings to receiving waters from municipal storm sewer systems, and capacities required for treatment systems). In general, population projections should reflect various scenarios of development (high, medium, low relative to recent trends).

Part 2 of the application will supplement the information reported in part 1 of the application so that, at a minimum, all major outfalls are identified.

Under today's rule, municipal or public entities responsible for applying for and obtaining an NPDES permit will be required to identify the location of an open dump, sanitary landfill, municipal incinerator or hazardous waste treatment, storage, and disposal facility under RCRA which may discharge storm water to the system as well as all facilities which discharge storm water associated with industrial activity into a large or medium municipal separate storm sewer system.

Requiring these source identification measures is supported by the legislative history of section 405 of the WQA, which instructs that "[i]n writing any permit for a municipal separate storm sewer, EPA or the State should pay particular attention to the nature and uses of the drainage area and the location of any industrial facility, open dump, landfill, or hazardous waste treatment, storage, or disposal facility which may contribute pollutants to the discharge." (emphasis added) [Vol 133 Cong. Rec. S752 (daily ed. Jan. 14, 1987)].

One municipality questioned the purpose of the topographic map and commented that the scale of the topographic map is too large to indicate any of the required outfall, drainage, industrial or structural control information. In response, the purpose of the topographic map is to identify receiving waters, major storm water sewer lines that contribute discharges to these waters, and potential sources of storm water pollution. EPA disagrees that a USGS 7.5 scale map is inappropriate for identifying these features within a municipal system. The scale afforded by such a map provides sufficient detail to allow specified delineation of outfalls, while not requiring an overly burdensome map in terms of size. Numerous commenters noted the value of source identification information and generally supported submitting this information in the permit application.

Many commenters questioned the value of the source identification information for the purpose of characterizing pollutant loads and concentrations. Conversely, one commenter opined that the requirement would provide sufficient information to estimate pollutant loadings from each outfall using loading models to estimate loadings by watershed. In response, the source identification information serves several purposes. It is the first step for identifying potential sources of pollutants from which more in depth analysis can be accomplished, under the discharge characterization component of the application. Also, where appropriate, it may be used in conjunction with models to estimate loadings and concentrations. EPA has also taken note of the many comments that question or dismiss the concept of determining pollutant loads and concentrations solely from source identification. Accordingly, EPA is convinced that at least some of the sampling requirements as proposed are necessary to facilitate more accurate system specific estimates of pollutant concentrations and loadings. These are discussed below, in the discharge characterization section.

One commenter suggested that aerial photos be submitted in lieu of topographic maps. EPA agrees that an aerial photograph of the appropriate scale that communicates the same information as a topographic map may be substituted. Today's final rule reflects this flexibility.

The source identification component of the municipal application also requires that municipal applicants identify the industrial activity within the drainage area associated with each major outfall. One commenter stated that where multiple storm sewers outfalls discharge to a stream reach, municipalities should be allowed to delineate a single sewer-shed for identifying sources of industrial activity. In response, the rule does not delimit an applicant's ability to identify industries in groups according to a common series of storm sewer outfalls, if that is an easier or more appropriate methodology for that particular applicant. However, EPA would view this as appropriate only where the land use is of one type, such as industrial. Where land use is mixed within the drainage area associated with each major outfall, such differences need to be identified.

In response to comments, to the extent that EPA is requesting that applicants identify the types of industrial facilities operating within the municipality, the municipality is free to use Standard Industrial Classification (SIC) or other systems which identify the principal products or services of the facility. One commenter disagreed with EPA's decision to require a list of water bodies that are listed under CWA sections 304(1), 319(a), 314(a), and 320, because the States already have this information and that requesting it from permittees could result in "omissions, misunderstandings, and mistakes." EPA believes that these waters should be identified in the application so that appropriate permit conditions can be developed that address storm water discharges that are adversely effecting such waters. EPA believes that having this information immediately at the disposal of the municipality and the permit writer will speed the process and alert the municipality of storm water discharges to listed water bodies and potentially polluted storm water discharges to those waters.

***48049 6. Characterization of Discharges**

The characterization plan and data collection required in today's rule as elements of Part-one and Part-two of the municipal permit application is comprised of several major components:

- A screening analysis to provide information to develop a program for detecting and controlling illicit connections and illegal dumping to the municipal separate storm sewer system;
- Initial quantitative data to allow the development of a representative sampling program to be incorporated as a permit condition;
- System-wide estimates of annual pollutant loadings and the mean concentration of pollutants in storm water discharges, and a schedule to provide estimates during the term of the permit for each major outfall of the seasonal pollutant loadings and the event mean concentration of pollutants in storm water discharges; and
- An identification of receiving waters with known water quality impacts associated with storm water discharges.

Several commenters noted the importance of developing and targeting management programs based on discharge characterization data and monitoring. Numerous other commenters stressed the importance of a program to identify and eliminate illicit connections and improper disposal. EPA agrees that discharge characterization is an important component of

developing management programs. Most of the discharge characterization components of the municipal application procedure have been retained as proposed. However some changes and clarifications have been made, and these are noted below.

a. Screening analysis for illicit discharges (part 1 of application). Illicit discharges (non-storm water discharges without a NPDES permit), and illegal dumping to municipal separate storm sewer systems occur in a relatively haphazard manner. Due to the unpredictability of such discharges, today's permit applications require a field analysis for the development of priorities for detecting and controlling such discharges. A field screening approach will provide a means of detecting high levels of pollutants in dry weather flows, which is one indicator of illicit connections. Results of a field test of such discharges will provide further information about the nature of the discharge to determine if further investigation is warranted. Visual observation of dry weather flows has been shown to be one the most effective means for tracking down illicit connections and improper disposal.

As discussed in greater detail in section VI.H.7.b of today's preamble, EPA is proposing to require that municipal applicants submit a comprehensive plan to develop a program to detect and control illicit connections and illegal dumping. In order to develop appropriate priorities for these programs, applicants shall submit the results of a screening analysis to be performed on major outfalls or "field screening points" in the systems to detect the presence of illicit hookups and illegal dumping. The results of the screening analysis, referred to as the field screen, would be reported in part 1 of the permit application.

Under the requirements for a field screen, the applicant or co-applicants will submit a description of observations of dry weather discharges from major outfalls or "field screening points" identified in part 1 of the application. At a minimum, the field screen would include a description of visual observations made during a dry weather period. If any flow is observed during a dry weather period, two grab samples will be collected during a 24 hour period with a minimum period of four hours between samples. For all such samples, a description of the color, odor, turbidity, the presence of an oil sheen or surface scum as well as any other relevant observation regarding the potential presence of non-storm water discharges or illegal dumping would be provided. In addition, the applicant should provide the results of a field screen which includes on-site estimates of pH, total chlorine, total copper, total phenol, detergents (or surfacants) along with a description of the flow. EPA is not requiring analytical methods approved under 40 CFR part 136 be used exclusively in the field screen. Rather, the use of inexpensive field sampling techniques such as the use of colorimetric detection methods is anticipated. Where the field screen does not involve analytical methods approved under 40 CFR part 136, the applicant is required to provide a description of the method used which includes the name of the manufacturer of the test method, including the range and accuracy of the test. Appropriate field techniques for a field screen of dry weather discharges are discussed in EPA guidance for municipal storm water discharge permit applications.

It should be clarified that data from the field screen is generally not appropriate for comprehensive evaluation of water quality impacts, or estimating pollutant loadings. Rather, the information from the field screen in part 1 of the application will be used along with other information, such as the age of development and degree of industrial activity in the drainage basin, to identify areas or outfalls which are appropriate targets for management programs and for investigations directed at identifying and controlling non-storm water discharges to separate storm sewers during the term of the permit.

In the December 7, 1988, proposal, EPA proposed a second phase of the screening analysis requiring that wet-weather and dry-weather samples be collected and analyzed in accordance with analytical methods approved under 40 CFR part 136 from designated major outfalls for a larger set of pollutants identified with illicit connections. Comments essentially viewed this proposal as too ambitious for the permit application. One commenter recommended that this procedure could best be accomplished during the term of the permit. Some comments maintained that the collection of analytical samples as a follow up to an initial field screen analysis was not the most cost-effective, practicable or efficient method for pinpointing illicit connections. EPA recognizes that several municipal programs to detect and control illicit connections and other non-storm water discharges have been successfully developed and implemented without the use of extensive analytical sampling (for example, programs in Fort Worth, TX and Washtenaw County, MI). After identifying and analyzing the comments on this aspect of the proposal EPA has withdrawn this element of the proposal from today's rule. EPA believes that a follow-up phase to the initial field screening is more appropriate during the term of the permit. Thus, EPA has dropped the field screening requirement proposed for Part 2 of the application.

b. Representative data (Part 2 of application). The NURP study showed that pollutant concentrations in urban runoff can exhibit significant variation. Pollutant concentrations in such discharges vary during storm events and from storm event to storm event. Given the complex, variable nature of storm water discharges from municipal systems, EPA favors a permit scheme where the collection of representative data is primarily a task that will be accomplished through monitoring programs during the term of the permit. Permit writers have the necessary flexibility to develop monitoring requirements that more accurately reflect the true nature of highly variable and complex discharges.

*48050 Today's rule provides for an initial assessment of the quality of discharges from municipal separate storm sewers based primarily on source identification measures and existing information received in the permit application. This information will be used to begin to characterize system discharges. The analysis developed under this approach will not rely solely on sampling data collected during the application process, but will also incorporate existing data bases such as the one developed under the NURP study. Today's rule requires that some quantitative data will be collected to ensure the system discharges can be appropriately represented by the various existing data bases and to provide a basis for developing a monitoring plan to be implemented as a permit condition.

Today's rule requires that quantitative data be submitted for discharges from selected storm events at between 5 and 10 outfalls or field screening points. The municipality will recommend and the Director will then designate the outfalls or field screening points as representative of the commercial, residential and industrial land use activities of the drainage area contributing to the system, on the basis of information received in part 1 of the application. The applicant will be required to collect samples of a storm discharge from three storm events occurring one month apart for each designated outfall or field screening point. This is a modification to the December 7, 1988, proposal wherein only one of the 5 to 10 outfalls was to be sampled during three storm events, and the remaining sampled only once. This requirement may be modified by the Director if the type and frequency of storm events require different sampling. The Director may require samples of discharges to be collected during snow melts or during specified seasons. The Director may also require additional testing during a single event if it is unlikely that there will be three storm events suitable for sampling during the year. Furthermore, the Director may allow exemptions to the three storm event requirement when climatic conditions create good cause for such exemptions; for example, arid regions or areas experiencing drought conditions during the period when applications are developed could be exempted.

EPA has added requirements to sample more storm events in response to comments that the sampling procedure proposed would not necessarily yield representative data. Commenters indicated that: rain events of different intensity may yield different levels and types of pollutants; a rain event after a dry spell of several months will not be representative when compared to rain events occurring closer together, due to the build up of constituents; one sample may reflect short term effects such as improper disposal rather than long term effects; and that rain events are generally too variable to rely on the limited sampling as proposed. Clearly the data collected from sampling storm water discharges has a tendency to vary greatly. The more sampling that is accomplished, the greater extent to which this variability may be accounted for and appropriate management programs developed.

In selecting the amount of data to be collected during the permit application process, EPA has attempted to balance the usefulness of this data against the economic and logistical constraints in actually obtaining it. In some cases the data obtained will support initial loading and concentration estimates obtained using various modeling techniques, from which appropriate permit conditions can be developed. Data obtained may be supplemented with further data collection during the term of the permit.

EPA believes that the requirement that selected major municipal outfalls or "field screening points" be sampled for more than one event will provide verification that the characterization of discharge is valid. Where an ongoing sampling program is defined for the term of the permit, samples taken during the first few years of this period can be used to verify the application results. If a municipality or an industry questions the conclusions drawn from the characterization sampling, it may at its discretion choose to perform additional sampling to either confirm or dispel these concerns.

All samples collected will be analyzed for all pollutants listed in Table II, (organic pollutants), and Table III, (toxic metals, cyanide and total phenol) of appendix D of 40 CFR part 122, and for the pollutants listed in Table M-1 below:

Table M-1

Total suspended solids (TSS)	Total dissolved solids.
COD	BOD ⁵
Oil and grease	Fecal coliform.
Fecal streptococcus	pH.
Dissolved phosphorus	
Total ammonia plus organic nitrogen	Total phosphorus.
Total Kjeldahl nitrogen	Nitrate plus nitrite.

A portion of the NURP program involved monitoring 120 priority pollutants in storm water discharges from lands used for residential, commercial and light industrial activities. The NURP program excluded testing for asbestos and dioxin. Results for seven other organic priority pollutants were not considered valid due to changes in, or constraints on test methods. Seventy-seven priority pollutants were detected in samples of storm water discharges from lands used for residential, commercial and light industries taken during the NURP study, including 14 inorganic and 63 organic pollutants. Table M-2 shows the priority pollutants which were detected in at least ten percent of the discharge samples which were sampled for priority pollutants.

Table M-2.—Priority Pollutants Detected in at Least 10% of NURP Samples

[In percent]

Metals and inorganics	Frequency of detection
Antimony	13
Arsenic	52
Beryllium	12
Cadmium	48
Chromium	58
Copper	91
Cyanides	23
Lead	94
Nickel	43
Selenium	11
Zinc	94
Pesticides:	
Alpha-hexachlorocyclohexane	20
Alpha-endosulfan	19
Chlordane	17
Lindane	15
Halogenated aliphatics:	
Methane, dichloro-	11
Phenols and cresols:	
Phenol	14
Phenol, pentachloro-	19
Phenol, 4-nitro	10
Phthalate esters:	
Phthalate, bis(2-ethylhexyl)	22
Polycyclic aromatic hydrocarbons:	
Chrysene	10
Fluoranthene	16
Phenanthrene	12
Pyrene	15

The NURP data also showed a significant number of these samples exceeded various freshwater water quality criteria. The exceedence of water quality criteria does not necessarily imply that an actual violation of standards will exist in the receiving water body in question. Rather, the enumeration of exceedences serves as a screening function to identify those constituents whose presence in urban storm water runoff may warrant high priority for further evaluation.

Members of this group represent all of the major organic chemical fractions *48051 found in Table II of appendix D of 40 CFR part 122 (volatiles, acid compounds, base/neutrals, pesticides). Today's rule requires testing for all organic constituents in Table II rather than limiting the sampling requirements to the 24 toxic constituents found in the NURP study because they will provide a better description of the discharge at essentially the same cost. (The cost of analyzing samples for organic chemicals strongly depends on the number of major organic chemical fractions tested). The NURP study focused on characterizing storm water discharges from lands used for residential, commercial and light industrial activities. In general, the NURP study did not focus on other sources of pollutants to municipal separate storm sewer systems and, therefore, does not reflect all potential pollutants that may be present in discharges from municipal separate storm sewer systems.

The sampling requirements for the permit application address a limited number of sampling locations but require analysis for a wide range of pollutants. Sampling for a wide range of pollutants as a permit application requirement should provide permit writers with appropriate data to target more specific pollutants when developing requirements for a monitoring program during the term of the permit.

Numerous commenters stated that monitoring for all priority pollutants seemed excessive. However, EPA is convinced that it is more appropriate for permit conditions to focus on and prioritize particular pollutant problems after data covering a broad spectrum of pollutants are developed. As noted above, NURP identified 77 priority pollutants in urban runoff, but only from residential, commercial, and light industrial (e.g. industrial parks) areas. One municipal entity stated that this approach is a reasonable and realistic means of providing some useful baseline data, while others recommended sampling a variety of parameters that are included in Tables M-1 and M-2. Another municipal entity stated that characterization of outfall discharge quality during storm events is necessary as a means of targeting source control activities.

EPA is working with the United States Geological Survey (USGS) to evaluate the availability of USGS technical assistance to municipalities through cooperative funding programs to aid in collecting representative quantitative data of storm water discharges from municipal systems.

USGS data collection programs with municipalities typically include storm water discharge samples obtained at various times during a storm hydrograph event. Various USGS field procedures can be used to obtain discharge data for pipes, culverts, etc., typically found in urban areas. Pollutant models can be calibrated with data and long-term rainfall records to simulate the quality of system discharges and compared to other storm water models.

In addition, EPA recognizes that many municipalities have participated in studies, such as NURP, that involve sampling of urban runoff as well as other components of discharges from municipal separate storm sewer systems. All existing storm water sampling data along with relevant water quality data, sediment data, fish tissue data or biosurvey data taken over the last ten years is considered relevant and, under today's rule, must be submitted with part 1 of the application. Sampling data that is submitted must be accompanied with a narrative description of the drainage area served by the outfall monitored, a description of the sampling and quality control program, and the location of receiving water monitoring.

EPA requested comments on the use of existing data, such as that generated under the NURP study, to satisfy the requirement of providing representative sampling data. Commenters did not agree on the value of NURP results as an indicator of representative data. Several commenters expressed the view that existing data could be used to satisfy in whole or in part the representative sampling requirements of the storm water permit application. However, commenters generally did not offer suggested criteria that could be used to verify the validity of existing data. One commenter believed that intensive sampling over a period of ten years in 12 basins, when combined with NURP data, would be adequate.

One commenter supported the use of data, such as that obtained from the NURP study, to target sampling programs. EPA supports such a methodology and has retained this portion of the proposed discharge characterization component. EPA received strong support from an environmental group for retaining this information requirement in part 1 of the application.

In light of these comments EPA believes it is appropriate to retain the representative sampling requirements without resorting to the use of existing data exclusively. Because of the inherent variability in reliability and applicability of existing data, EPA is convinced that a nationally consistent methodology for collecting data is appropriate. This data can then be used in conjunction with other existing data and models to develop appropriate site specific management programs and more generalized management program strategies. Where existing data and data collected under today's rule varies or does not match, further sampling under the term of the permit will be accomplished to more accurately assess the discharge of pollutants.

c. Loading and Concentration Estimates (part 2 of application). The assessment of the water quality impacts of discharges from municipal separate storm sewer systems on receiving waters requires the analysis of both pollutant loadings and concentrations of pollutants in discharges.

The loading and concentration estimates in today's rule will be used to evaluate two types of water quality impacts: (1) Short-term impacts; and (2) long-term impacts. Specifically, the regulation requires estimates of the annual pollutant load of the cumulative discharges to waters of the United States from municipal outfalls and the event mean concentration of the cumulative discharges to waters of the United States municipal outfalls during a storm event 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. Municipalities have options in the use of methodologies, including those presented in NURP for calculating loads.

Short term impacts from discharges from municipal separate storm sewers involve changes in water quality that occur during and shortly after storm events. Examples of short-term impacts that can lead to impairments include periodic dissolved oxygen depression due to the oxidation of contaminants, high bacteria levels, fish kills, acute effects of toxic pollutants, contact recreation impairments and loss of submerged macrophytes. Characterization of instream pollutant concentrations based on estimated pollutant concentrations in system discharges are important for evaluating these types of impacts.

Long-term water quality impacts from discharges from municipal separate storm sewers may be caused by contaminants associated with suspended solids that settle in receiving water sediments and by nutrients which enter receiving water systems with long *48052 retention times. Pollutant loading data are important for evaluation of impairments such as loss of storage capacity in streams, estuaries, reservoirs, lakes and bays, lake eutrophication caused by high nutrient loadings, and destruction of benthic habitat. Other examples of the long-term water quality impacts include depressed dissolved oxygen caused by the oxidation of organics in bottom sediments and biological accumulation of toxics as a result of uptake by organisms in the food chain. An estimate of annual pollutant loading associated with discharges from municipal storm water sewer systems is necessary to evaluate the magnitude and severity of the environmental impacts of such discharges and to evaluate the effectiveness of controls which are imposed at a later time.

Municipal storm water sewer systems generally handle runoff from large drainage areas and the sources of pollution are usually very diffuse. The concentrations of many pollutants in discharges from these systems are often low relative to many industrial process and POTW discharges. The water quality impacts of low concentration pollution discharges tend to be cumulative and need to be evaluated in terms of aggregate loadings as well as pollutant concentrations. A site-specific loading analysis can be used to evaluate the relative contribution of various pollutant sources.

7. Storm Water Quality Management Plans

Today's rule facilitates the development of site-specific permit conditions by requiring large and medium municipal permit applicants to submit, along with other information, a description of existing structural and non-structural prevention and control measures on discharges of pollutants from municipal storm sewers in part I of the permit application. Section 122.26(d)(2)(iv)

requires the applicant to identify in part 2 of the application, to the degree necessary to meet the MEP standard, additional prevention or control measures which will be implemented during the life of the permit. Although, in many cases, it will not be possible to identify all prevention and control measures that are appropriate as permit conditions, EPA believes that the process of identifying components of a comprehensive prevention and/or control program should begin early and that applicants should be given the opportunity to identify and propose the components of the program that they believe are appropriate for first preventing or controlling discharges of pollutants.

As noted earlier, EPA recognizes that problems associated with storm water, combined sewer overflows (CSOs) and infiltration and inflow (I&I) are all inter-related even though they are treated somewhat differently under the law. EPA believes that it is important to begin linking these programs and activities and, because of the potential cost to local governments, to investigate the use of innovative, nontraditional approaches to reducing or preventing contamination of storm water. The application process for developing municipal storm water management plans provides an ideal opportunity between steps 1 and 2 for considering the full range of nontraditional, preventive approaches.

The permit application requirements in today's rule require the applicant or co-applicants to develop management programs for four types of pollutant sources which discharge to large and medium municipal storm sewer systems. Discharges from large and medium municipal storm sewer 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 the applicant the opportunity to propose MEP control measures for each of these components of the discharge. Discharges from some municipal systems may also contain pollutants from other sources, such as runoff from land disposal activities (leaking septic tanks, landfills and land application of sewage sludge). Where other sources, such as land disposal, contribute significant amounts of pollutants to a municipal storm sewer system, appropriate control measures should be included on a site-specific basis. Proposed management programs will then be evaluated in the development of permit conditions.

There is some overlap in the manner in which these pollutant sources are characterized and their sources identified. For instance, improper disposal of oil into storm drains is often associated with do-it-yourself automobile oil changes in residential areas, or improper application or over-use of herbicides and pesticides in residential areas can also occur in industrial areas. Also, some control measures will reduce pollutant loads for multiple components of the municipal storm sewer discharge. These measures should be identified under all appropriate places in the application; as discussed below, however, double counting of pollutant removal must be avoided when the total assessment of control measures is performed.

Although many land use programs have multiple purposes, including the reduction of pollutants in discharges from municipal separate storm sewer systems, the proposed management programs in today's rule are intended to address only those controls which can be implemented by the permit applicant or co-applicants. EPA cannot abrogate its responsibilities under the CWA to implement the NPDES permit program by relying on pollution control programs that are outside the NPDES program. For example, municipal permit management programs may not rely exclusively on erosion or sediment control laws for implementing that portion of management programs that address discharges from construction sites, unless such laws implement NPDES permit program requirements entirely and that such implementation is a part of the permit.

EPA anticipates that storm water management programs will evolve and mature over time. The permits for discharges from municipal separate storm sewer systems will be written to reflect changing conditions that result from program development and implementation and corresponding improvements in water quality. The proposed permit applications will require applicants to provide a description of the range of control measures considered for implementation during the term of the permit. Flexibility in developing permit conditions will be encouraged by providing applicants an opportunity to identify in the permit application priority controls appropriate for the initial implementation of management programs. Many commenters endorsed the flexible site-specific storm water program approach as proposed as a method for addressing regional water quality control programs in a cost effective manner. To this extent, EPA agrees with one municipality that management programs should focus on more serious problems and sources of pollutants identified in the municipal system. However, EPA believes that to implement section 402(p)(3), comprehensive storm water management programs which address a number of major sources of pollutants to a system are necessary. Municipal programs should not be focused solely on a single source of pollution, such as illicit connections.

One commenter maintained that management program development *48053 should be flexible enough to allow for consideration of what is attainable based on the area's climate, vegetation, hydrology, and land uses. EPA agrees with this comment. Some strategies for reducing pollutants in the northeast will not be practical in the southwest, such as management programs for deicing activities. The permit application process will determine what strategies are appropriate in different locations.

Several commenters supported addressing storm water pollutant problems through management practices or programs rather than end of pipe controls or treatment. EPA agrees with this comment to the extent that storm water management practices are a general theme of this rulemaking with regard to municipal permits. However, there will be cases where such discharges are best addressed through technology such as retention, detention or infiltration ponds.

One commenter reacted unfavorably to the flexible site-specific management plan approach stating that there is no hard criteria upon which to judge the adequacy of programs. Another commenter felt that there should be a BAT standard for municipal permits. Another commenter stated that the rule should contain specific BMPs that the permittee must comply with. EPA disagrees with these comments. The Clean Water Act requires municipalities to apply for permits that will reduce pollutants in discharges to the maximum extent practicable and sets out the types of controls that are contemplated to deal with storm water discharges from municipalities. The language of CWA section 402(p)(3) contemplates that, because of the fundamentally different characteristics of many municipalities, municipalities will have permits tailored to meet particular geographical, hydrological, and climatic conditions. Management practices and programs may be incorporated into the terms of the permit where appropriate. Permit conditions, which require that storm water management programs be developed and implemented or require specific practices, are enforceable in accordance with the terms of the permit. EPA disagrees with the notion that this regulation, which addressed permit application requirements, should create mandatory permit requirements which may have no legitimate application to a particular municipality. The whole point of the permit scheme for these discharges is to avoid inflexibility in the types and levels of control. Further, to the degree that such mandatory requirements may be appropriate, these requirements should be established under the authority of section 402(p)(6) of the CWA and not in this rulemaking, which addresses permit application requirements.

Some commenters suggested that management programs should be developed as part of the permit conditions and not as part of the permit application. EPA agrees that management programs and their ongoing development should be part of the permit term. However, EPA is convinced, and many commenters agree, that the permit application should contain information on what the permittee has done to date and what it proposes and plans to do during the permit term based upon its discharge characterization and source identification data. This is a reasonable and logical approach and one that meets the intent and letter of section 402(p)(3) of the CWA. As stated above, this would be an appropriate method for implementing storm water management programs that should mature and evolve over time.

Applicants will propose priorities based on a consideration of appropriate controls including, but not limited to, consideration of controls that address: reducing pollutants to municipal separate storm sewer system discharges that are associated with storm water from commercial and residential areas (§ 122.26(d)(2)(iv)(A)); illicit discharges and illegal disposal (§ 122.26(d)(2)(iv)(B)); storm water from industrial areas (§ 122.26(d)(2)(iv)(C)); and runoff from construction sites (§ 122.26(d)(2)(iv)(D)). Permits for different municipalities will place different emphasis on controlling various components of discharges from municipal storm sewers. For example, the potential for cross-connections (such as municipal sewage or industrial process wastewater discharges to a municipal separate storm sewer) is generally expected to be greater in municipalities with older developed areas. On the other hand, municipalities with larger areas of new development will have a greater opportunity to focus controls to reduce pollutants in storm water generated by the area after it is developed, discharges from construction sites, and other planning activities.

EPA requested comments on the process and methods for developing appropriate priorities in management programs proposed in applications and how the development of these priorities can be coordinated with controls on other discharges to ensure the achievement of water quality standards and the goals of the CWA.

Discharges from diffuse sources in residential areas was recognized by several commenters as a significant source of pollutants. Accordingly, these elements of the management plans have been retained. In conjunction with the importance of developing programs for illicit connections, numerous commenters stated that education programs are a priority. Another commenter emphasized that ordinances prohibiting such discharges and their enforcement is a crucial means of a successful program in this regard. EPA agrees with these comments and consequently will retain those portions of management program development that include a description of a program for educational activities such as public information for the proper disposal of oil and toxic materials and the use of herbicides, pesticides and fertilizers.

Some commenters noted that discharge characterization is necessary for development of appropriate management plans. EPA agrees with these comments and has retained the discharge characterization components in this rulemaking. However, EPA disagrees that the results of all discharge characterization procedures (i.e., part 1 and part 2) are necessary to describe and propose a program as required in part 2 of the application. The application of various models is available to permit applicants, where needed, to develop appropriate management programs. All available site specific discharge characterization data should be available to the permit writer to draft appropriate conditions for the term of the permit.

One commenter noted that an important aspect of developing management plans is establishing the necessary legal authority to improve water quality. EPA agrees with this comment and has retained those aspects of the regulation which call for development and attainment of adequate legal authority in both parts of the municipal application.

One commenter stated that programs should address previously identified water quality problems in other programs that are required by section 304(1) of the CWA. EPA agrees that identified water quality problems need to be addressed by management programs, and the municipal permit application will call for an identification of these waters. However, EPA does not endorse addressing these waters to the exclusion of all others within the boundaries of the municipal separate storm sewer system. Some waters may experience substantial degradation after rain events and still not be listed under ~~*48054~~ section 304(1). Further, water quality impacts in listed waters may not be related to storm water discharges, while other non-listed waters do have water quality impacts from storm water discharges. Similarly, EPA agrees with one commenter that it may be desirable to focus attention and resources on certain problem watersheds within a municipality, and controls may be imposed and programs prioritized on that basis. However, such a focus should not be to the exclusion of other waters and watersheds that have water quality problems (although less troublesome) traceable to storm water discharges. The CWA requires that permits address discharges to waters of the United States, not just waters previously targeted under special programs.

Some commenters expressed concern that the permit application requires the design of management programs before knowing what will be in the permits. EPA disagrees with the thrust of this comment, that is that the order of requirements is inappropriate. The permit applicant will have two years to develop proposed plans which can be considered by permit writers in the development of the permit. Based upon a consideration of the management program proposed by the municipality and other relevant information, permits can be tailored for individual programs. One commenter stated that the cornerstone of management programs are inspection and enforcement programs. EPA agrees that these two elements are important components. Without inspection and enforcement mechanisms the programs will undoubtedly falter. Accordingly these requirements in the description of management programs in the permit application have been retained. In a similar vein, one commenter emphasized the importance of developing legal authority, financial capability, and administrative infrastructure. EPA agrees with this comment and has retained those aspects of the regulation that call for a description of applicants plans and resources in these areas.

One commenter stressed that control of discharges into the municipal system from industries is an important goal of municipal storm water management programs. EPA agrees with this comment and has retained the proposed description of management programs to address discharges from industrial sources. Other commenters identified industries as the principal contributors of pollutants to municipal separate storm sewer systems.

In addition, EPA will continue to evaluate procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality in the studies required under section 402(p)(5) of the CWA. One purpose of these studies will

be to evaluate the costs and water quality benefits associated with implementing these procedures and methods. This evaluation will address a number of factors which impact the implementation costs associated with these programs, such as the extent to which similar municipal ordinances are currently being implemented, the degree to which existing municipal programs (such as flood management programs or construction site inspections) can be expanded to address water quality concerns, the resource intensiveness of the control, and whether the control program will involve public or private expenditures. This information, along with information gained during permit implementation will aid in the dynamic long-term development of municipal storm water management programs.

a. Measures to reduce pollutants in runoff from commercial and residential areas. The NURP program evaluated runoff from lands primarily dedicated to residential and commercial activities. The areas evaluated in the study reflect some other activities, such as light industry, which are commonly dispersed among residential and commercial areas. The NURP study selected sampling locations that were thought to be relatively free of illicit discharges and storm water from heavy industrial sites including storm water runoff from heavy construction sites. Of course, in a study such as NURP it was impossible to totally isolate various contributions to the runoff. In developing the permit application requirements in today's rule EPA has, in general, relied on the NURP definition of urban runoff—runoff from lands used for residential, commercial and light industrial activities.

NURP and numerous other studies have shown that runoff from residential and commercial areas washes a number of pollutants into receiving waters. Of equal importance is the volume of storm water runoff leaving urban areas during storm events. Large intermittent volumes of runoff can destroy aquatic habitat. As the percentage of paved surfaces increases, the volume and rate of runoff and the corresponding pollutant loads also increase. Thus, the amount of storm water runoff from commercial and residential areas and the pollutant loadings associated with storm water runoff increases as development progresses; and they remain at an elevated level for the lifetime of the development.

Proposed § 122.26(d)(2)(iv)(A) requires municipal storm sewer system applicants to provide in part 2 of the application a description of a proposed management program that will describe priorities for implementing management programs based on a consideration of appropriate controls including:

- A description of maintenance activities and a maintenance schedule for structural controls;
- A description of planning procedures including a comprehensive master plan to control after construction is completed, the discharge of pollutants from municipal separate storm sewers which receive discharges from new development and significant redevelopment after construction is completed (in response to comment this contemplates an engineering policy and procedure strategy with long term planning);
- A description of practices for operating and maintaining public highways and procedures for reducing the impact on receiving waters of such discharges from municipal storm sewer system;
- A description of procedures to assure that flood management projects assess the impacts on the water quality of receiving water bodies; and
- 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 and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities.

Water quality problems caused by municipal storm sewer discharges will generally be most acute in heavily developed areas. Prevention measures may be desirable and cost effective. However, structural control measures may also be effective, although opportunities for implementing these measures may be limited in previously developed areas. Commonly used structural technologies include a wide variety of treatment techniques, including first flush diversion systems, detention/infiltration basins, retention basins, extended detention basins, infiltration trenches, porous pavement, oil/grit separators, grass swales, and swirl concentrators. A major problem associated with sound storm water management is the need for operating *48055 and maintaining the system for its expected life.

The unavailability of land in highly developed areas often makes the use of structural controls infeasible for modifying many existing systems. Non-structural practices can play a more important role. Non-structural practices can include erosion control, streambank management techniques, street cleaning operations, vegetation/lawn maintenance controls, debris removal, road salt application management and public awareness programs.

As noted above, the first component of the proposed program to reduce pollutants in storm water from commercial and residential areas which discharge to municipal storm sewer systems is to describe maintenance activities and schedule. The second component of the proposed program to reduce pollutants in storm water from commercial and residential areas which discharge to municipal storm sewer systems provides that applicants describe the planning procedures and a comprehensive master plan that will assure that increases of pollutant loading associated with newly developed areas are, to the maximum extent practicable, limited. These measures should address storm water from commercial and residential areas which discharge to the municipal storm sewer that occur after the construction phase of development is completed. Controls for construction activities are addressed later in today's rule. One commenter noted the feasibility of developing management plans for newly developing areas. EPA agrees with this comment and has retained that portion of the regulation that deals with a description of controls for areas of new development. Similarly, one municipality stressed the importance and achievability of addressing storm water discharges from construction sites.

As urban development occurs, the volume of storm water and its rate of discharge increases. These increases are caused when pavement and structures cover soils and destroy vegetation which otherwise would slow and absorb runoff. Development also accelerates erosion through alteration of the land surface. Areas that are in the process of development offer the greatest potential for utilizing the full range of structural and non-structural best management practices. If these measures are to provide controls to reduce pollutant discharges after the area has been developed, comprehensive planning must be used to incorporate these measures as the area is in the process of developing. These measures offer an important opportunity to limit increases in pollutant loads.

The third component of § 122.26(d)(2)(iv)(A) provides a description of practices for operating and maintaining public roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems. General guidelines recommended for managing highway storm water runoff include litter control, pesticide/herbicide use management, reducing direct discharges, reducing runoff velocity, grassed channels, curb elimination, catchbasin maintenance, appropriate streetcleaning, establishing and maintaining vegetation, development of management controls for salt storage facilities, education and calibration practices for deicing application, infiltration practices, and detention/retention practices.

The fourth component of § 122.26(d)(2)(iv)(A) provides that applicants identify procedures that enable flood management agencies to consider the impact of flood management projects on the water quality of receiving streams. A well-developed storm water management program can reduce the amount of pollutants in storm water discharges as well as benefit flood control objectives. As discussed above, increased development can increase both the quantity of runoff from commercial and residential areas and the pollutant load associated with such discharges. Disturbing the land cover, altering natural drainage patterns, and increasing impervious area all increase the quantity and rate of runoff, thereby increasing both erosion and flooding potential. An integrated planning approach helps planners make the best decisions to benefit both flood control and water quality objectives.

The fifth component of § 122.26(d)(2)(iv)(A) would provide that municipal applicants submit 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. Such a program may include controls such as educational activities and other measures for commercial applicators and distributors and controls for application in public rights-of-way and at municipal facilities. Discharges of these materials to municipal storm sewer systems can be controlled by proper application of these materials. Some commenters noted that insecticides used in residential areas are a probable source of pollutants in storm water discharges from residential areas, as well as salting and other de-icing activities. In response to this comment, part of a community management plan may include controls or education programs to limit the impacts of these sources of pollutants. One commenter noted that many communities already have household toxic disposal programs. Where appropriate these can be incorporated into municipal management programs.

Some commenters suggested substituting the management program description for residential and commercial areas with a simple identification of applicable management practices. EPA agrees that identification of appropriate management practices is a critical component of a program description for these areas. In essence, this is what the program description is designed to achieve. However, for the reasons discussed in greater detail above, EPA is convinced that an appropriate program must address all of the components of the management program for residential and commercial areas that are outlined in today's rule. Further, for the purposes of writing a permit with enforceable conditions, the application should identify a schedule to implement management practices. The applicant should be able to estimate the reduction in pollutant loads as a result of the development of certain management practices and programs (§ 122.26(d)(2)(v)). A program may also include public education programs, which are not necessarily viewed as traditional BMPs.

b. Measures for illicit discharges and improper disposal. The CWA requires that NPDES permits for discharges from municipal storm sewers "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers." In today's rule, EPA will begin to implement this statutory mandate by focusing on two types of discharges to large and medium municipal separate storm sewer systems. See § 122.26(d)(1)(iv)(D) and (d)(2)(iv)(B). One type of non-storm water discharges are illicit discharges which are plumbed into the system or that result from leakage of sanitary sewage system. The other class of non-storm water discharges result from the improper disposal of materials such as used oil and other toxic materials.

Illicit discharges. In some municipalities, illicit connections of sanitary, commercial and industrial discharges to storm sewer systems have had a significant impact on the water quality of receiving waters. Although the *48056 NURP study did not emphasize identifying illicit connections to storm sewers other than to assure that monitoring sites used in the study were free from sanitary sewage contamination, the study concluded that illicit connections can result in high bacterial counts and dangers to public health. The study also noted that removing such discharges presented opportunities for dramatic improvements in the quality of urban storm water discharges.

Other studies have shown that illicit connections to storm sewers can create severe, wide-spread contamination problems. For example, the Huron River Pollution Abatement Program inspected 660 businesses, homes and other buildings located in Washtenaw County, Michigan and identified 14% of the buildings as having improper storm drain connections. Illicit discharges were detected at a higher rate of 60% for automobile related businesses, including service stations, automobile dealerships, car washes, body shops and light industrial facilities. While some of the problems discovered in this study were the result of improper plumbing or illegal connections, a majority were approved connections at the time they were built. Many commenters emphasized the identification and elimination of illicit connections as a priority, including leakage from sanitary sewers. EPA agrees with these comments and intends to retain this portion of the program without modification.

A wide variety of technologies exist for detecting illicit discharges. The effectiveness of these measures largely depends upon the site-specific design of the system. Under today's rule, permit applicants would develop a description of a proposed management program, including priorities for implementing the program and a schedule to implement a program to identify illicit discharges to the municipal storm sewer system. This rulemaking will require the initial priorities for analyzing various portions of the system and the appropriate detection techniques to be used.

Improper disposal. The permit application requirements for municipal storm sewer systems include a requirement that the municipal permit applicant describe a program to assist and facilitate in the proper management of used oil and toxic materials. Improper management of used oil can lead to discharges to municipal storm sewers that in turn may have a significant impact on receiving water bodies. EPA estimates that, annually, 267 million gallons of used oil, including 135 million gallons of used oil from do-it-yourself automobile oil changes, are disposed of improperly. An additional 70 million gallons of used oil, most coming from service stations and repair shops, are used for road oiling. Many commenters emphasized the elimination of discharges composed of improperly disposed of oil and toxic material. One commenter identified motor oil as the major source of oil contamination and that EPA needs to encourage proper disposal of used oil. Several other commenters emphasized the importance of recycling programs for oil. EPA agrees with these comments and intends to retain this portion of the program without modification. One commenter identified public awareness and timely reporting of illegal dumping as critical

components of this portion of the program. EPA agrees with this comment and intends for management programs to deal with this problem.

c. Measures to reduce pollutants in storm water discharges through municipal separate storm sewers from municipal landfills, hazardous waste treatment, disposal and recovery facilities that are subject to section 313 of title III of SARA. As discussed in section VI.C of today's preamble, industrial facilities that discharge storm water through a large or medium municipal separate storm sewer system are required to apply for a permit under § 122.26(c) or seek coverage under a promulgated general permit. Today's rule also requires the municipal storm sewer permittee to describe a program to address industrial dischargers that are covered under the municipal storm sewer permit. Today's rule requires the municipal applicant to identify such discharges (see source identification requirements under § 122.26(d)(2)(ii)), provide a description of a program to monitor pollutants in runoff from certain industrial facilities that discharge to the municipal separate storm sewer system, identify priorities and procedures for inspections, and establish and implement control measures for such discharges. Should a municipality suspect that an individual discharger is discharging pollutants in storm water above acceptable limits, and the owner/operator of the system has no authority over the discharge, the municipality should contact the NPDES permitting authority for appropriate action. Two example of possible action are: if the facility already has an individual permit, the permit may be reopened and further controls imposed; or if the facility is covered by a promulgated general permit, then an individual site-specific permit application may be required.

In the December 7, 1988, proposal, EPA requested comments concerning what storm water discharges from industrial facilities through municipal systems should be monitored. One of the proposed approaches was to require data on portions of the municipal system which receive storm water from facilities which are listed in the proposed regulatory definition at § 122.26(b)(14) of "storm water discharge associated with industrial activity" (with the exception of construction activities and uncontaminated storm water from oil and gas operations) which discharge through the municipal system. However, given the large number of facilities meeting this definition that discharge through municipal systems, a monitoring program that requires the submission of quantitative data regarding portions of the municipal systems receiving storm water from such facilities may not be practicable. Such a requirement could, for some systems, potentially become the most resource intensive requirements in the municipal permit. Therefore, EPA proposed various ways to develop appropriate targeting for monitoring programs.

EPA requested comments on a requirement that, at a minimum, monitoring programs address discharges from municipal separate storm sewer outfalls that contain storm water discharges from municipal landfills, hazardous waste treatment, disposal and recovery facilities, and runoff from industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Section 313 of title III requires that operators or certain facilities that manufacture, import, process, or otherwise use certain toxic chemicals report annually their releases of those chemicals to any environmental media. Section 313(b) of title III specifies that a facility is covered for the purposes of reporting if it meets all of the following criteria:

- The facility has ten or more full-time employees;
- The facility is in Standard Industrial Classification (SIC) codes 20 through 39;
- The facility manufactured (including quantities imported), processed, or otherwise used a listed chemical in amounts that exceed certain threshold quantities during the calendar year for which reporting is required.

Listed chemicals include 329 toxic chemicals listed at 40 CFR 372.45. After 1989, the threshold quantities of listed chemicals that the facility must manufacture, import or process (in order to trigger the submission of a release ^{*48057} report) is 25,000 pounds per year. The threshold for a use other than manufacturing, importing or processing of listed toxic chemicals is 10,000 pounds per year. EPA promulgated a final regulation clarifying these reporting requirements on February 16, 1988, (53 FR 4500).

EPA received numerous comments regarding limiting the types of facilities that are initially subject to monitoring and municipal management programs. Numerous municipalities agreed that focusing on the above facilities is an appropriate means for

setting priorities for the development of control measures to eliminate or reduce pollutants associated with industrial facilities. Commenters agreed that the potential for toxic materials in discharges is high because of the high volume of such materials at these facilities and that information regarding discharges and material management practices will be available through section 313 of SARA. One commenter noted that building on an established program will contribute to establishing an effective storm water program. Accordingly, EPA has specified at § 122.26(d)(2)(ii)(C) that the municipal applicant must describe a program that identifies priorities and procedures for inspections and establishing and implementing control measures for these facilities.

Several commenters suggested that these facilities should not be singled out because the presence of the threshold amounts of SARA 313 chemicals does not indicate that significant quantities of those chemicals are likely to enter the facility's storm water runoff. Instead it was suggested that municipalities should monitor storm sewers as a whole to determine what chemicals are present and therefore what facilities are responsible. EPA disagrees with these comments. The object of these requirements is initially to set priorities for monitoring requirements. Then, if the situation requires, controls can be developed and instituted. If a facility is a member of this class of facilities and does not discharge excessive quantities of SARA 313 chemicals, then it may not be subjected to further monitoring and controls. As noted above, the selection of facilities is only a means of setting priorities for facilities for the development of municipal plans.

EPA agrees, however, that there will be other facilities that are significant sources of pollutants and should be addressed by municipalities as soon as possible under management programs. Accordingly, those industrial facilities that the municipal permit applicant determines to be contributing a substantial pollutant loading to the municipal storm sewer system shall be addressed in this portion of the municipal management program.

EPA also requested comments on monitoring programs for municipal discharges including the submission of quantitative data on the following constituents;

- Any pollutants limited in an effluent guidelines for the industry subcategories, where applicable;
- Any pollutant listed in a discharging facility's NPDES permits for process wastewater, where applicable;
- Oil and grease, pH, BOD₅, COD, TSS, total phosphorus, total Kjeldahl nitrogen, and nitrate plus nitrite nitrogen;
- Any information on discharges required under 40 CFR 122.21(g)(7)(iii) and (iv).

These are the same constituents that are to be addressed in individual permit applicants for storm water discharges associated with industrial activity.

Several industries and municipalities submitted comments on this issue. Some commenters agreed that these are appropriate parameters. Some commenters advised that the ability of municipalities to implement this aspect of the program depended on industries submitting this data. Several industries provided comments suggesting that the approach should allow the permittee flexibility in determining which parameters are chosen because of the burdens of monitoring and the complexity of materials and flows in municipal systems.

In light of these comments, EPA has retained § 122.26(d)(2)(iv)(C) as proposed requiring municipalities to describe a monitoring program which utilizes the above parameters. Monitoring for these parameters provides consistency with the individual application requirements for industries, provides uniformity in municipal applications, and will narrow the parameters to conform to the types of industries discharging into the municipal systems. Monitoring programs may consist of programs undertaken by the municipality exclusively or requirements imposed on industry by the municipality, or a combination of approaches. Appropriate procedures are discussed in municipal permit application guidance.

EPA requested comments on appropriate means for municipalities to determine what facilities are contributing pollutants to municipal systems. Many commenters responded with numerous methodologies. Some of these have been addressed in guidance. Municipalities will have options in selecting the most appropriate methodology given their circumstances as described in their permit applications.

EPA initially favors establishing monitoring requirements to be applied to those outfalls that directly discharge to waters of the United States. EPA received one comment from a municipality with regard to this issue which agreed that this was the most logical approach. Monitoring of outfalls close to the point of discharge to waters of the United States is generally preferable when attempting to identify priorities for developing pollutant control programs. However, under certain circumstances, it may be preferable to monitor at the point where the runoff from the industrial facility discharges to the municipal system. For example, if many facilities discharge substantially similar storm water to a municipal system it may be more practicable to monitor discharges from representative facilities in order to characterize pollutants in the discharge.

As noted by numerous industries, if municipal characterization plans reveal problems from certain industrial dischargers, then such facilities may be required to provide further data from their own monitoring. As noted above, EPA envisions that this data could then be used to develop appropriate control practices or techniques and/or require individual permit applications if a general permit covering the facility proves inadequate.

Comments were also solicited as to whether end-of-pipe treatment generally was more appropriate than source controls for storm water from industrial facilities which discharge to municipal systems. Many commenters, including both municipalities and industries, stated that source controls are the only practical and feasible means of controlling pollutants in storm water runoff, and specifically opposed the concept of end-of-pipe treatment or other controls. Some commenters maintained that, from an economic and environmental standpoint, end-of-pipe treatment may be the only effective means. One advised that the prompt cleanup of spills, controlled wash down of process areas, covering of material loading areas, storm water runoff diversion, covered storage areas, detention basins or other such mechanisms would prevent storm water from mixing with pollutants and possibly discharging them into receiving waters. Another noted that in the urban areas, there is little potential for treatment; consequently, it would seem *48058 that controls and/or retrofitting existing facilities would be necessary when violations are found and that citizens will be better served by source controls appropriate to the individual problem.

EPA agrees with these comments to the extent that source controls and management programs are the general thrust of these regulations. However, in some situations end-of-pipe treatment, such as holding ponds, may be the only reasonable alternative. EPA disagrees with one industrial commenter that the municipalities should be almost entirely responsible for treating municipal discharges at the end of-the-pipe without reliance on source controls by industrial dischargers. Municipal programs may require controls on industrial sources with demonstrated storm water discharge problems. One industrial association noted that its member companies already have incentive to properly handle their materials and facilities because of other environmental programs with spill and erosion controls.

Numerous commenters stated that the program addressing industrial dischargers through municipal systems needs to be clearly defined in order to eliminate, as much as possible, potential conflicts between the system operator and dischargers. EPA has provided a framework for development of management plans to control pollutants from these particular sources. However, because of the differences in municipal systems and hydrology nationwide, EPA is not convinced that program specificity is an appropriate approach. The concept of the management program is to provide flexibility to the permit applicants to develop regional site specific control programs.

One commenter suggested that required controls should be limited to a facility's proportional contribution (based on concentration) of pollutants. EPA disagrees. Most facilities discharging through a municipal separate storm sewer will need to be covered by a general or individual permit. These permits will control the introduction of pollutants from that facility through the municipal storm sewer to the waters of the U.S. Any additional controls placed on the facility by the municipality will be at the discretion of the municipality. EPA is not requiring municipalities to adopt a particular level of controls on industrial facilities as suggested by the commenter.

One commenter questioned how dischargers that discharged both into the waters of the United States and through a municipal system will be addressed and whether there is a potential for inconsistent requirements. Industries that discharge storm water associated with industrial activity into the waters of the United States are required to be covered by individual permits or general permits for such discharges. Dischargers of storm water associated with industrial activity through municipal separate storm

sewer systems will be subject to municipal management programs that address such discharges as well as to an individual or general NPDES permit for those discharges. EPA does not believe there is a significant risk of inconsistent requirements, since each industrial facility must meet BAT/BCT-level controls in its NPDES permit. EPA doubts that municipalities will impose much more stringent controls.

Many commenters stated that if cities and municipalities are to be responsible for industrial storm water discharges through their system, then municipalities should have authority to make determinations as to what industries should be regulated, how they are regulated, and when enforcement actions are undertaken. In response, EPA notes that the proposal has been changed and that municipalities will not be solely responsible for industries discharging through their system. Nonetheless, municipalities will be required to meet the terms of their permits related to industrial dischargers. Municipalities may undertake programs that go beyond the threshold requirements of the permit. Some municipal entities stated that municipal permittees should be able to require permit applications from industries in the same manner that EPA does and also require permits. In response, if operators of large and medium municipal separate storm sewer systems wish to employ such a program, then this portion of the management program may incorporate such practices.

d. Measures to reduce pollutants in runoff from construction sites into municipal systems. Section VI.F.8 of today's rule discusses EPA's proposal to define the term "storm water discharge associated with industrial activity" to include runoff from construction sites, including preconstruction activities except operations that result in the disturbance of less than 5 acres total land area which are not part of a larger common plan of development or sale. Under today's rule, facilities that discharge runoff from construction sites that meet this definition will be required to submit permit applications unless they are to be covered by another individual or general NPDES permit. Permit application requirements for such discharges are at 40 CFR 122.26(c)(1)(ii).

Section 122.26(d)(2)(iv)(D) of today's rule requires applicants for a permit for large or medium municipal separate storm sewer systems to submit a description of a proposed management program to control pollutants in construction site runoff that discharges to municipal systems. Under this provision, municipal applicants will submit a description of a program for implementing and maintaining structural and non-structural best management practices for controlling storm water runoff at construction sites. The program will address procedures for site planning, enforceable requirements for nonstructural and structural best management practices, procedures for inspecting sites and enforcing control measures, and educational and training measures. Generally, construction site ordinances are effective when they are implemented. However, in many areas, even though ordinances exist, they have limited effectiveness because they are not adequately implemented. Maintaining best management practices also presents problems. Retention and infiltration basins fill up and silt fences may break or be overtopped. Weak inspection and enforcement point to the need for more emphasis on training and education to complement regulatory programs. Permits issued to municipalities will address these concerns.

8. Assessment of Controls

EPA proposed that municipal applicants provide an initial assessment of the effectiveness of the control method for structural or non-structural controls which have been proposed in the management program. Some commenters stated that the assessment of controls should be left to the term of the permit because the effectiveness of controls will be hard to establish. EPA believes that an initial estimate or assessment is needed because the performance of appropriate management controls is highly dependent on site-specific factors. The assessment will be used in conjunction with the development of pollutant loading and concentration estimates (see VI.H.6.c) and the evaluation of water quality benefits associated with implementing controls. Such assessments do not have to be verified with quantitative data, but can be based on accepted engineering design practices. Further more precise assessments based upon quantitative data can be undertaken during the term of the permit.

***48059 I. Annual Reports**

As discussed earlier in today's preamble, EPA has provided for proposed flexible permit application requirements to facilitate the development of site-specific programs to control the discharge of pollutants from large and medium municipal separate storm sewer systems. Many municipalities are in the early stages of the complex task of developing a program suitable for controlling pollutants in discharges under a NPDES permit, while other municipalities have relatively sophisticated programs in place. In order to ensure that such site-specific programs are developed in a timely manner, EPA proposed to require permittees

of municipal separate storm sewer systems to submit status reports every year which reflect the development of their control programs.

The reports will be used by the permitting authority to aid in evaluating compliance with permit conditions and where necessary, modify permit conditions to address changed conditions. EPA requested comments on the appropriate content of the annual reports. Based on these comments EPA has added the following in these reports: an analysis of data, including monitoring data, that is accumulated throughout the year; new outfalls or discharges; annual expenditures; identification of water quality improvements or degradation on watershed basis; budget for year following each annual report; and administrative information including enforcement activities, inspections, and public education programs. EPA views this information as important for evaluating the municipal program. Annual monitoring data and identified water quality improvements are important for evaluating the success of management programs in reducing pollutants. If new outfalls come into existence during the term of the permit, these may be sources of pollutants and appropriate permit conditions will be developed. Annual reports should reflect the level of enforcement activity and inspections undertaken to ensure that the legal authority developed by the municipality is properly exercised. Many of the management programs depend upon an ongoing high level of public education. Accordingly, the undertaking of these programs on an annual basis should be documented.

J. Application Deadlines

The CWA provided a statutory time frame for implementing the storm water permit application process and issuance and compliance with permits.

The CWA requires EPA to promulgate permit application requirements for storm water discharges associated with industrial activity and for large municipal separate storm sewer systems by "no later than two years" after the date of enactment (i.e. no later than February 4, 1989). In conjunction with this requirement, the Act requires that permit applications for these classes of discharges be submitted within one year after the statutory date by which EPA is to promulgate permit application requirements by providing that such applications "shall be filed no later than three years" after the date of enactment of the WQA (i.e., no later than February 4, 1990).

The CWA also requires EPA to promulgate final regulations governing storm water permit application requirements for discharges from municipal separate storm sewer systems serving a population of 100,000 or more but less than 250,000 by "no later than four years" after enactment (i.e. no later than February 4, 1991). Permit applications for medium municipal separate storm sewer systems "shall be filed no later than five years" after the date of enactment of the CWA (i.e., no later than February 4, 1992). The CWA did not establish the time period between designation and permit application submittal for case-by-case designations under section 402(p)(2)(E).

Comments on earlier rulemakings involving storm water application deadlines have established that applicants need adequate time to obtain "representative" storm water samples. Many commenters have indicated that at least one full year is needed to obtain such samples. This is because many discharges are located in areas where testing during dry seasons or winter would not be feasible. The intermittent and unpredictable nature of storm water discharges can result in difficult and time-consuming data gathering. Moreover, some operators of municipal separate storm sewer systems have many storm water discharges associated with industrial activity, which can require considerable time to identify, analyze, and submit applications. This creates a tremendous practical problem for the extremely high number of unpermitted storm water discharges. The public's interest in a sound storm water program and the development of a useful storm water data base is best served by establishing an application deadline which will allow sufficient time to gather, analyze, and prepare meaningful applications. Based on a consideration of these factors, EPA proposed that individual permit applications for storm water discharges associated with industrial activity, which currently are not covered by a permit and that are required to obtain a permit, be submitted one year after the final rule is promulgated.

EPA received numerous comments from industries on the one year requirement for submitting applications. Several commenters supported the proposed deadline as realistic, while others believed more time was needed to meet the information and quantitative requirement.

EPA rejects the assertion by some commenters that a year is too short a period of time to obtain the required quantitative data. Today's rule generally requires applications for storm water discharges associated with industrial activity to be submitted on or before November 18, 1991. Operators of storm water discharges associated with industrial activity which discharge through a municipal separate storm sewer are subject to the same application deadline as other storm water discharges associated with industrial activity. Since final regulation at § 122.21(g)(7) provides considerable latitude for selecting rain events for quantitative data, EPA is convinced that in most cases data can be obtained during the one year time frame. If data cannot be collected during the one year time frame because of anomalous weather (e.g. drought conditions), then permitting authorities may grant additional time for submitting that data on a case-by-case basis. See § 122.21(g)(7).

Operators of storm water discharges which are currently covered by a permit will not be required to submit a permit application until their existing permit expires. In recognition of the time required to collect storm water discharge data, EPA will allow facilities which currently have a NPDES permit for a storm water discharge and which must reapply for permit renewal during the first year following promulgation of today's permit application requirements the option of applying in accordance with existing Form 1 and Form 2C requirements (in lieu of applying in accordance with the revised application requirements).

As discussed in section VI.D.4 and section VI.F.6 of today's preamble, EPA has established a two part permit application both for both group applications for sufficiently similar facilities that discharge storm water associated with industrial activity and for operators of large or medium municipal separate storm sewer systems. The deadlines for submitting *48060 permit applications in today's rule provide adequate time for: (1) Applicants to prepare Part 1 of the application; (2) EPA or an approved State to adequately review applications; and (3) applicants to prepare the contents of the part 2 application.

Part 1 of the group application for storm water discharges associated with industrial activity must be submitted within 120 days from the publication of these final permit application regulations. This time is necessary to form groups and for individual members of the group to prepare the non-quantitative information required in part 1 of the application. Part 1 of the group application will be submitted to EPA Headquarters in Washington, DC and reviewed within 60 days after being received. Part 2 of the application would then be submitted within one year after the part 1 application is approved. It should be noted that many facilities located in States in which general permits can be issued, will be eligible for coverage by a storm water general permit to be promulgated in the near future. Such facilities may either seek coverage under such general permits or participate in the group application.

Several comments were received by EPA that indicated that a period of 120 days was too short a period for groups to be formed. EPA disagrees with these comments. The information that EPA is requiring to be submitted by the group or group representative is information that is generally available such as the location of the facility, its industrial activity, and material management practices. EPA believes that 120 days is sufficient to gather and submit this information along with an identification of 10% of the facilities which will submit quantitative data. To ameliorate any difficulties for applicants, EPA has provided a means for late facilities to "add on" where appropriate, on a case-by-case basis, as discussed in section VI.F.4. above.

Several comments were received with regard to the requirement that new dischargers submit an application at least 180 days before the date on which the discharge is to commence. One commenter noted that it will be difficult for a facility to know when a storm water discharge is to commence since precipitation and runoff cannot be predicted to any degree of accuracy. In response, new dischargers must apply for a storm water permit application 180 days before that facility commences manufacturing, processing, or raw material storage operations which may result in the discharge of pollutants from storm water runoff, and 90 days for new construction sites.

For large municipal separate storm sewer systems (systems serving a population of more than 250,000), EPA proposed that part 1 of the permit application be submitted within one year of the date of the final regulations, with approval or disapproval by the permit issuing authority of the provisions of the part 1 permit application within 90 days after receiving part 1 of the application. The Part 2 portion of the application was to be submitted within two years of the date of promulgation.

For medium municipal separate storm sewer systems (systems serving a population of more than 100,000, but less than 250,000), EPA proposed that permit applications would be required nine months after the date of the final rule, with approval or disapproval of the provisions of the part 1 permit application within 90 days after receiving the part 1 application. The part 2 portion of the application would then be submitted no later than one year after the part 1 application has been approved.

Numerous comments were received by EPA from municipalities on these proposed deadlines. Many of these comments reflect the sentiment that the deadlines are too tight and that the required information would not be available for submission within the required time frame. Some commenters suggested deadlines that would add over three years to the permit application process. Other commenters suggested a revamped application process and a shorter deadline of 18 months. Some commenters explained that additional time would be needed to obtain adequate legal authority, while another stated that an inventory of outfalls required more time. One commenter maintained that intergovernmental agreements will require more time to prepare, and others expressed the view that more time was needed for the review of part 1 of the application by permitting authorities. Others felt more time was needed for collecting data, or hiring additional staff to accomplish the work. Most of these commenters did not provide specific details regarding what would be an appropriate amount of time and why.

After reviewing these comments EPA has decided to modify some of the deadlines as proposed. EPA is convinced that to properly achieve the goals of the CWA, the permit application requirements as discussed in previous sections are appropriate; but that the deadlines for medium municipal separate storm sewer systems should be adjusted so that the program's goals can be properly accomplished. After reviewing comments, EPA believes that medium municipalities will have fewer resources and existing institutional arrangements than large cities and therefore more time should be granted to these cities for submitting parts 1 and 2 of the application.

Accordingly EPA will require large municipal systems to submit part 1 of the permit application no later than November 18, 1991. Part 1 will be reviewed and approved or disapproved by the Director within 90 days. Part 2 of the application will then be submitted November 16, 1992. Medium municipal systems will submit part 1 of the application on May 18, 1992. Approval or disapproval by the Director will be accomplished within 90 days. Part 2 of the application will be submitted by May 17, 1993. These deadlines will give large systems two years to complete the application process, and medium systems 2 years and 6 months to submit applications. EPA is convinced that the permit application schedule is warranted and should provide adequate time to prepare the application.

In establishing these regulatory deadlines EPA is fully aware that they are not synchronized with the statutory deadlines as established by Congress. One commenter argued that the deadlines as proposed were contrary to the deadlines established by Congress and that EPA had no authority to extend these deadlines. (For large municipal separate storm sewer systems and storm water discharges associated with industrial activity, Congress established a deadline of February 4, 1990, for submission of permit applications; for medium municipal separate storm sewer systems, the deadline is February 4, 1992.) In response, this regulation provides certain deadlines for meeting the substantive requirements of this rulemaking—requirements which EPA is convinced are necessary for the development of enforceable and sound storm water permits. EPA believes it is important to give applicants sufficient time to reasonably comply with the permit application requirements set out today. EPA will therefore accept applications for storm water discharge permits up to the dates specified in today's rule. By establishing these regulatory deadlines, however, EPA is not attempting to waive or revoke the statutory deadlines established in Section 402(p) of the CWA and does not assert the authority to do so. The statutory permit application deadlines **48061* continue to be enforceable requirements.

EPA was not able to promulgate the final application regulations for storm water discharges before the February 4, 1990, deadline for industrial and large municipal dischargers despite its best efforts. Further, as noted above, EPA is not able to waive the statutory deadline. Dischargers concerned with complying with the statutory deadline should submit a permit application as required under this rulemaking as expeditiously as possible.

Operators of storm water discharges that are not specifically required to file a permit application under today's rule may be required to obtain a permit for their discharge on the basis of a case-by-case designation by the Administrator or the NPDES State.

The Administrator or NPDES State may also designate storm water discharges (except agricultural storm water discharges), that contribute to a violation of a water quality standard or that are significant contributors of pollutants to waters of the United States for a permit. Prior to a case-by-case determination that an individual permit is required for a storm water discharge, the Administrator or NPDES State may require the operator of the discharge to submit a permit application. 40 CFR 124.52(c) requires the operator of designated storm water discharges to submit a permit application within 60 days of notice, unless permission for a later date is granted. The 60-day deadline is consistent with the procedures for designating other discharges for a NPDES permit on a case-by-case basis found at 40 CFR 124.52. The 60-day deadline recognizes that case-by-case designations often require an expedited response, however, flexibility exists to allow for case-by-case extensions.

The December 7, 1988, proposal also proposed Part 504 State Storm Water Management Programs. The Agency has not included this component in today's rule. The Agency believes this program element is appropriate for addressing in regulations promulgated under section 402(p)(6) of the CWA.

VII. Economic Impact

EPA has prepared an Information Collection Request for the purpose of estimating the information collection burden imposed on Federal, State and local governments and industry for revisions to NPDES permit application requirements for storm water discharges codified in 40 CFR part 122. EPA is promulgating these revisions in response to Section 402(p)(4) of the Clean Water Act, as amended by the Water Quality Act of 1987 (WQA). The revisions would apply to: Storm water discharges associated with industrial activity; discharges from municipal separate storm sewer systems serving a population of 250,000 or more and discharges from municipal separate storm sewer systems serving a population of 100,000 or more, but less than 250,000.

The estimated annual cost of applying for NPDES permits for discharges from municipal separate storm sewer systems is \$4.2 million. EPA estimates that an average permit application for a large municipality will cost \$76,681 and require 4,534 hours to prepare. The average application for a medium municipality will cost \$49,249 (2,912 hours) to prepare. The annual respondent cost for NPDES permit applications, notices of intent, and notifications for facilities with discharges associated with industrial activity is estimated to be \$9.5 million (271,248 hours). EPA estimates that the average preparation cost of an individual industrial permit application would be \$1,007 (28.6 hours). Average Group application will cost \$74.00 per facility (2.1 hours). The average cost of the notification and notice of intent to be covered by general permit is \$17.00 (0.5 hours).

The annual cost to the Federal Government and approved States for administration of the program is estimated to be \$588,603. The total cost for municipalities, industry, and State and Federal authorities is estimated to be \$14.5 million annually.

In general, the cost estimates provided in the ICR focus primarily on the costs associated with developing, submitting and reviewing the permit applications associated with today's rule. EPA will continue to evaluate procedures and methods to control storm water discharges to the extent necessary to mitigate impacts on water quality in the studies required under section 402(p)(5) of the CWA. Executive Order 12291 requires EPA and other agencies to perform regulatory analyses of major regulations. Major rules are those which impose a cost on the economy of \$100 million or more annually or have certain other economic impacts. Today's proposed amendments would generally make the NPDES permit application regulations more flexible and less burdensome for the regulated community. These regulations do not, satisfy any of the criteria specified in section 1(b) of the Executive Order and, as such, do not constitute a major rule. This regulation was submitted to the Office of Management and Budget (OMB) for review.

VIII. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under provision of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and have been assigned OMB control number 2040-0086.

Public reporting burden for permit applications for storm water discharges associated with industrial activity (other than from construction facilities) is estimated to average 28.6 hours per individual permit application, 0.5 hours per notice of intent to be covered by general permit, and 2.1 hours per group applicant. The public reporting burden for permit applications for storm water discharges associated with industrial activity from construction activities submitting individual applications is estimated to average 4.5 hours per response. The public reporting burden for facilities which discharge storm water associated with industrial activity to municipal separate storm sewers serving a population over 100,000 to notify the operator of the municipal separate storm sewer system is estimated to average 0.5 hours per response.

The reporting burden for system-wide permit applications for discharges from municipal separate storm sewer systems serving a population of 250,000 or more is estimated to average 4,534 hours per response. The reporting burden for system-wide permit applications for discharges from municipal separate storm sewer systems serving a population of 100,000 or more, but less than 250,000 is estimated to average 2,912 hours per response. Estimates of reporting burden include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

IX. Regulatory Flexibility Act

Under the Regulatory Flexibility Act, 5 U.S.C. 601 et seq., EPA is required to prepare a Regulatory Flexibility Analysis to assess the impact of rules on small entities. No Regulatory Flexibility Analysis is required, however, where the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities.

Today's amendments to the regulations would generally make the NPDES permit applications regulations more flexible and less burdensome for permittees. Accordingly, I hereby ~~48062~~ certify, pursuant to 5 U.S.C. 605(b), that these amendments do not, have a significant impact on a substantial number of small entities.

List of Subjects in 40 CFR Parts 122, 123, and 124

Administrative practice and procedure, Environmental protection, Reporting and recordkeeping requirements, Water pollution control.

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

Dated: October 31, 1990.

William K. Reilly,

Administrator.

For the reasons stated in the preamble, parts 122, 123, and 124 of title 40 of the Code of Federal Regulations are amended as follows:

PART 122—EPA ADMINISTERED PERMIT PROGRAMS; THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Subpart B—Permit Application and Special NPDES Program Requirements

1. The authority citation for part 122 continues to read as follows:

Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

2. Section 122.1 is amended by revising paragraph (b)(2)(iv) to read as follows:

§ 122.1 Purpose and scope.

* * * * *

(b) * * *

(2) * * *

(iv) Discharges of storm water as set forth in § 122.26; and

* * * * *

3. Section 122.21 is amended by revising paragraph (c)(1), by removing the last sentence of paragraph (f)(7), by removing paragraph (f)(9), by adding two sentences at the end of paragraph (g)(3), by revising paragraph (g)(7) introductory text, by removing and reserving paragraph (g)(10) and by revising the introductory text of paragraph (k) to read as follows:

§ 122.21 Application for a permit (applicable to State programs, see § 123.25).

* * * * *

(c) Time to apply. (1) Any person proposing a new discharge, shall submit an application at least 180 days before the date on which the discharge is to commence, unless permission for a later date has been granted by the Director. Facilities proposing a new discharge of storm water associated with industrial activity shall submit an application 180 days before that facility commences industrial activity which may result in a discharge of storm water associated with that industrial activity. Facilities described under § 122.26(b)(14)(x) shall submit applications at least 90 days before the date on which construction is to commence. Different submittal dates may be required under the terms of applicable general permits. Persons proposing a new discharge are encouraged to submit their applications well in advance of the 90 or 180 day requirements to avoid delay. See also paragraph (k) of this section and § 122.26 (c)(1)(i)(G) and (c)(1)(ii).

* * * * *

(g) * * *

(3) * * * The average flow of point sources composed of storm water may be estimated. The basis for the rainfall event and the method of estimation must be indicated.

* * * * *

(7) Effluent characteristics. Information on the discharge of pollutants specified in this paragraph (except information on storm water discharges which is to be provided as specified in § 122.26). When "quantitative data" for a pollutant are required, the applicant must collect a sample of effluent and analyze it for the pollutant in accordance with analytical methods approved under 40 CFR part 136. When no analytical method is approved the applicant may use any suitable method but must provide a description of the method. When an applicant has two or more outfalls with substantially identical effluents, the Director may allow the applicant to test only one outfall and report that the quantitative data also apply to the substantially identical outfalls. The requirements in paragraphs (g)(7) (iii) and (iv) of this section that an applicant must provide quantitative data for certain pollutants known or believed to be present do not apply to pollutants present in a discharge solely as the result of their presence in intake water; however, an applicant must report such pollutants as present. Grab samples must be used for pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform and fecal streptococcus. For all other pollutants, 24-hour composite samples must be used. However, a minimum of one grab sample may be taken for effluents from holding ponds or other impoundments with a retention period greater than 24 hours. In addition, for discharges other than storm water discharges, the Director may waive composite sampling for any outfall for which the applicant demonstrates that the use of an automatic sampler is infeasible and that the minimum of four (4) grab samples will be a representative sample of the effluent being discharged. For storm water discharges, all samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inch and at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Where feasible, the variance in the duration of the event and the total rainfall of the event should not exceed 50 percent from the average or median rainfall event in that area. For all applicants, a flow-weighted composite shall be taken for either the entire discharge or for the first three hours of the discharge. The flow-weighted composite sample for a storm water discharge may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge or for the first three hours of the discharge, with each aliquot being separated by a minimum period of fifteen minutes (applicants submitting permit applications for storm water discharges under § 122.26(d) may collect flow weighted composite samples using different protocols with respect to the time duration between the collection

of sample aliquots, subject to the approval of the Director). However, a minimum of one grab sample may be taken for storm water discharges from holding ponds or other impoundments with a retention period greater than 24 hours. For a flow-weighted composite sample, only one analysis of the composite of aliquots is required. For storm water discharge samples taken from discharges associated with industrial activities, quantitative data must be reported for the grab sample taken during the first thirty minutes (or as soon thereafter as practicable) of the discharge for all pollutants specified in § 122.26(c)(1). For all storm water permit applicants taking flow-weighted composites, quantitative data must be reported for all pollutants specified in § 122.26 except pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform, and fecal streptococcus. The Director may allow or establish appropriate site-specific sampling procedures or requirements, including sampling locations, the season in which the sampling takes place, the minimum duration between the previous measurable storm event and the storm event sampled, the minimum or maximum level of precipitation required for an appropriate storm event, the form of precipitation sampled (snow melt or rain fall), protocols for collecting samples under 40 CFR part 136, and additional time for submitting data on a *48063 case-by-case basis. An applicant is expected to "know or have reason to believe" that a pollutant is present in an effluent based on an evaluation of the expected use, production, or storage of the pollutant, or on any previous analyses for the pollutant. (For example, any pesticide manufactured by a facility may be expected to be present in contaminated storm water runoff from the facility.)

* * * * *

(k) Application requirements for new sources and new discharges. New manufacturing, commercial, mining and silvicultural dischargers applying for NPDES permits (except for new discharges of facilities subject to the requirements of paragraph (h) of this section or new discharges of storm water associated with industrial activity which are subject to the requirements of § 122.26(c)(1) and this section (except as provided by § 122.26(c)(1)(ii)) shall provide the following information to the Director, using the application forms provided by the Director:

* * * * *

4. Section 122.22(b) introductory text is revised to read as follows:

§ 122.22 Signatories to permit applications and reports (applicable to State programs, see § 123.25).

* * * * *

(b) All reports required by permits, and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

* * * * *

5. Section 122.26 is revised to read as follows:

§ 122.26 Storm water discharges (applicable to State NPDES programs, see § 123.25).

(a) Permit requirement. (1) Prior to October 1, 1992, 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 mining operations or oil and gas exploration, production, processing or treatment operations or transmission facilities, 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 has not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations.

(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 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.

*48064 (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.

(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 latest Decennial Census by the Bureau of Census (appendix F); 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 latest Decennial Census by the Bureau of Census (appendix G); 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)(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:

*48065 (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 which is used for collecting and conveying storm water and which 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 40 CFR part 122. For the categories of industries identified in paragraphs (b)(14) (i) through (x) of 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 40 CFR part 401); 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 finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in paragraph (b)(14)(xi) of this section, the term includes only storm water discharges from all the areas (except access roads and rail lines) that are listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished 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 this paragraph (b)(14)(i)-(xi) of this section) include those facilities designated under the provisions of paragraph (a)(1)(v) of this section. The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) in paragraph (b)(14) of this section);

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined *48066 materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;

(v) Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

- (vii) Steam electric power generating facilities, including coal handling sites;
- (viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (b)(14) (i)-(vii) or (ix)-(xi) of this section are associated with industrial activity;
- (ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the CWA;
- (x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale;
- (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, 4221-25, (and which are not otherwise included within categories (ii)-(x));
- (c) Application requirements for storm water discharges associated with industrial activity—(1) Individual application. Dischargers of storm water associated with industrial activity are required to apply for an individual permit, apply for a permit through a group application, 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 40 CFR 124.52(c)) under paragraph (a)(1)(v) of this section and is not a municipal separate storm sewer, and which is not part of a group application described under paragraph (c)(2) of this section, shall submit an NPDES application in accordance with the requirements of § 122.21 as modified and supplemented by the provisions of the remainder of this paragraph. Applicants for discharges composed entirely of storm water shall submit Form 1 and Form 2F. Applicants for discharges composed of storm water and non-storm water shall submit Form 1, Form 2C, and Form 2F. Applicants for new sources or new discharges (as defined in § 122.2 of this part) composed of storm water and non-storm water shall submit Form 1, Form 2D, and Form 2F.
- (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:
- (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 paragraph § 122.21(g)(7) (iii) and (iv) of this part;

*48067 (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)(i), (g)(7)(ii), and (g)(7)(v); 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) The operator of an existing or new storm water discharge that is associated with industrial activity solely under paragraph (b)(14)(x) 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) Group application for discharges associated with industrial activity. In lieu of individual applications or notice of intent to be covered by a general permit for storm water discharges associated with industrial activity, a group application may be filed by an entity representing a group of applicants (except facilities that have existing individual NPDES permits for storm water) that are part of the same subcategory (see 40 CFR subchapter N, part 405 to 471) or, where such grouping is inapplicable, are sufficiently similar as to be appropriate for general permit coverage under § 122.28 of this part. The part 1 application shall be submitted to the Office of Water Enforcement and Permits, U.S. EPA, 401 M Street, SW., Washington, DC 20460 (EN-336) for approval. Once a part 1 application is approved, group applicants are to submit Part 2 of the group application to the Office of Water Enforcement and Permits. A group application shall consist of:

(i) Part 1. Part 1 of a group application shall:

(A) Identify the participants in the group application by name and location. Facilities participating in the group application shall be listed in nine subdivisions, based on the facility location relative to the nine precipitation zones indicated in appendix E to this part.

(B) Include a narrative description summarizing the industrial activities of participants of the group application and explaining why the participants, as a whole, are sufficiently similar to be covered by a general permit;

(C) Include a list of significant materials stored exposed to precipitation by participants in the group application and materials management practices employed to diminish contact by these materials with precipitation and storm water runoff;

(D) Identify ten percent of the dischargers participating in the group application (with a minimum of 10 dischargers, and either a minimum of two dischargers from each precipitation zone indicated in appendix E of this part in which ten or more members of the group are located, or one discharger from each precipitation zone indicated in appendix E of this part in which nine or

fewer members of the group are located) from which quantitative data will be submitted in part 2. If more than 1,000 facilities are identified in a group application, no more than 100 dischargers must submit quantitative data in Part 2. Groups of between four and ten dischargers may be formed. However, in groups of between four and ten, at least half the facilities must submit quantitative data, and at least one facility in each precipitation zone in which members of the group are located must submit data. A description of why the facilities selected to perform sampling and analysis are representative of the group as a whole in terms of the information provided in paragraph (c)(1) (i)(B) and (i)(C) of this section, shall accompany this section. Different factors impacting the nature of the storm water discharges, such as processes used and material management, shall be represented, to the extent feasible, in a manner roughly equivalent to their proportion in the group.

(ii) Part 2. Part 2 of a group application shall contain quantitative *48068 data (NPDES Form 2F), as modified by paragraph (c)(1) of this section, so that when part 1 and part 2 of the group application are taken together, a complete NPDES application (Form 1, Form 2C, and Form 2F) can be evaluated for each discharger identified in paragraph (c)(2)(i)(D) of this section.

(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 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(l)(1)(A)(i), section 304(l)(1)(A)(ii), or section 304(l)(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 *48069 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 ¼ 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 ¼ 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 include, 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)(a)(iii)(A)(3) of this paragraph, 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 40 CFR part 136. 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 *48070 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 requirements 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)(1) 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.

**48071* (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 40 CFR 122.21(g)(7) (iii) and (iv).

(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 expenditures, 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 paragraph (a)(1) of this section that does not have an effective NPDES permit covering its storm water outfalls shall submit an application in accordance with the following deadlines:

(1) For any storm water discharge associated with industrial activity identified in paragraph (b)(14)(i)-(xi) of this section, that is not part of a group application as described in paragraph (c)(2) of this section or which is not covered under a promulgated storm water general permit, a permit application made pursuant to paragraph (c) of this section shall be submitted to the Director by November 18, 1991;

**48072* (2) For any group application submitted in accordance with paragraph (c)(2) of this section:

(i) Part 1 of the application shall be submitted to the Director, Office of Water Enforcement and Permits by March 18, 1991;

(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 of the application shall be submitted to the Director, Office of Water Enforcement and Permits no later than 12 months after the date of approval of the part 1 application.

(iv) Facilities that are rejected as members of a group by the permitting authority shall have 12 months to file an individual permit application from the date they receive notification of their rejection.

(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 60 days of notice, unless permission for a later date is granted by the Director (see 40 CFR 124.52(c)), for:

(i) A storm water discharge which 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 paragraph (a)(1)(v) 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. New applications shall be submitted in accordance with the requirements of 40 CFR 122.21 and 40 CFR 122.26(c) 180 days before the expiration of such permits. Facilities with expired permits or permits due to expire before May 18, 1992, shall submit applications in accordance with the deadline set forth under paragraph (e)(1) of this section.

(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 or medium municipal separate storm sewer system as defined by paragraphs (b)(4)(iv) or (b)(7)(iv) 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.

6. Section 122.28(b)(2)(i) is revised to read as follows:

§ 122.28 General permits (applicable to State NPDES programs, see § 123.25).

* * * * *

(b) * * *

(2) Requiring an individual permit. (i) The Director may require any discharger authorized by a general permit to apply for and obtain an individual NPDES permit. Any interested person may petition the Director to take action under this paragraph. Cases where an individual NPDES permit may be required include the following:

(A) The discharger or "treatment works treating domestic sewage" is not in compliance with the conditions of the general NPDES permit;

(B) A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source or treatment works treating domestic sewage;

(C) Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;

(D) A Water Quality Management plan containing requirements applicable to such point sources is approved;

(E) Circumstances have changed since the time of the request to be covered so that the discharger is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized discharge is necessary;

(F) Standards for sewage sludge use or disposal have been promulgated for the sludge use and disposal practice covered by the general NPDES permit; or

(G) The discharge(s) is a significant contributor of pollutants. In making this determination, the Director may consider the following factors:

(1) The location of the discharge with respect to waters of the United States;

(2) The size of the discharge;

(3) The quantity and nature of the pollutants discharged to waters of the United States; and

(4) Other relevant factors;

* * * * *

*48073 7. Section 122.42 is amended by adding paragraph (c) to read as follows:

§ 122.42 Additional conditions applicable to specified categories of NPDES permits (applicable to State NPDES programs, see § 123.25).

* * * * *

(c) Municipal separate storm sewer systems. 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 § 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 programs that are established as permit condition. Such proposed changes shall be consistent with § 122.26(d)(2)(iii) of this part; and

(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;

7a. Part 122 is amended by adding appendices E through I as follows:

Appendix E to Part 122—Rainfall Zones of the United States

insert illustration 416A

Not Shown: Alaska (Zone 7); Hawaii (Zone 7); Northern Mariana Islands (Zone 7); Guam (Zone 7); American Samoa (Zone 7); Trust Territory of the Pacific Islands (Zone 7); Puerto Rico (Zone 3) Virgin Islands (Zone 3).

Source: Methodology for Analysis of Detention Basins for Control of Urban Runoff Quality, prepared for U.S. Environmental Protection Agency, Office of Water, Nonpoint Source Division, Washington, DC, 1986.

Appendix F to Part 122—Incorporated Places With Populations Greater Than 250,000 According to Latest Decennial Census by Bureau of Census.

State	Incorporated place
Alabama	Birmingham.
Arizona	Phoenix. Tucson.
California	Long Beach. Los Angeles. Oakland. Sacramento. San Diego. San Francisco. San Jose. Denver.
Colorado	
District of Columbia	
Florida	Jacksonville. Miami. Tampa.
Georgia	Atlanta.
Illinois	Chicago.
Indiana	Indianapolis.
Kansas	Wichita.
Kentucky	Louisville.
Louisiana	New Orleans.
Maryland	Baltimore.
Massachusetts	Boston.
Michigan	Detroit.
Minnesota	Minneapolis St. Paul.
Missouri	Kansas City.

Nebraska	St. Louis.
New Jersey	Omaha.
New Mexico	Newark.
New York	Albuquerque.
	Buffalo.
	Bronx Borough.
	Brooklyn Borough.
	Manhattan Borough.
	Queens Borough.
	Staten Island Borough.
North Carolina	Charlotte.
Ohio	Cincinnati.
	Cleveland.
	Columbus.
Oklahoma	Toledo.
	Oklahoma City.
	Tulsa.
Oregon	Portland.
Pennsylvania	Philadelphia.
	Pittsburgh.
Tennessee	Memphis.
	Nashville/Davidson.
Texas	Austin.
	Dallas.
	El Paso.
	Fort Worth.
	Houston.
	San Antonio.
Virginia	Norfolk.
	Virginia Beach.
Washington	Seattle.
Wisconsin	Milwaukee.

***48074 Appendix G to Part 122—Incorporated Places With Populations Greater Than 100,000 and Less Than 250,000 According to Latest Decennial Census by Bureau of Census**

State	Incorporated place
Alabama	Huntsville.
	Mobile.
	Montgomery.
Alaska	Anchorage.
Arizona	Mesa.
	Tempe.
Arkansas	Little Rock.
California	Anaheim.
	Bakersfield.
	Berkeley.
	Concord.
	Fremont.
	Fresno.

	Fullerton.
	Garden Grove.
	Glendale.
	Huntington Beach.
	Modesto.
	Oxnard.
	Pasadena.
	Riverside.
	San Bernadino.
	Santa Ana.
	Stockton.
	Sunnyvale.
	Torrance.
Colorado	Aurora.
	Colorado Springs.
	Lakewood.
	Pueblo.
Connecticut	Bridgeport.
	Hartford.
	New Haven.
	Stamford.
	Waterbury.
Florida	Fort Lauderdale.
	Hialeah.
	Hollywood.
	Orlando.
	St. Petersburg.
Georgia	Columbus.
	Macon.
	Savannah.
Idaho	Boise City.
Illinois	Peoria.
	Rockford.
Indiana	Evansville.
	Fort Wayne.
	Gary.
	South Bend.
Iowa	Cedar Rapids.
	Davenport.
	Des Moines.
Kansas	Kansas City.
	Topeka.
Kentucky	Lexington-Fayette.
Louisiana	Baton Rouge.
	Shreveport.
Massachusetts	Springfield.
	Worcester.
Michigan	Ann Arbor.
	Flint.

	Grand Rapids.
	Lansing.
	Livonia.
	Sterling Heights.
	Warren.
Mississippi	Jackson.
Missouri	Independence.
	Springfield.
Nebraska	Lincoln.
Nevada	Las Vegas.
	Reno.
New Jersey	Elizabeth.
	Jersey City.
	Paterson.
New York	Albany.
	Rochester.
	Syracuse.
	Yonkers.
North Carolina	Durham.
	Greensboro.
	Raleigh.
	Winston-Salem.
Ohio	Akron.
	Dayton.
	Youngstown.
Oregon	Eugene.
Pennsylvania	Allentown.
	Erie.
Rhode Island	Providence.
South Carolina	Columbia.
Tennessee	Chattanooga.
	Knoxville.
Texas	Amarillo.
	Arlington.
	Beaumont.
	Corpus Christi.
	Garland.
	Irving.
	Lubbock.
	Pasadena.
	Waco.
Utah	Salt Lake City.
Virginia	Alexandria.
	Chesapeake.
	Hampton.
	Newport News.
	Portsmouth.
	Richmond.
	Roanoke.

Washington Spokane.
Tacoma.
Wisconsin Madison.

Appendix H to Part 122— Counties with Unincorporated Urbanized Areas With a Population of 250,000 or More According to the Latest Decennial Census by the Bureau of Census

State	County	Unincorporated urbanized population
California	Los Angeles	912,664
	Sacramento	449,056
	San Diego	304,758
Delaware	New Castle	257,184
Florida	Dade	781,949
Georgia	DeKalb	386,379
Hawaii	Honolulu	688,178
Maryland	Anne Arundel	271,458
	Baltimore	601,308
	Montgomery	447,993
	Prince George's	450,188
Texas	Harris	409,601
Utah	Salt Lake	304,632
Virginia	Fairfax	527,178
Washington	King	336,800

Appendix I to Part 122—Counties With Unincorporated Urbanized Areas Greater Than 100,000, But Less Than 250,000 According to the Latest Decennial Census by the Bureau of Census

State	County	Unincorporated urbanized population
Alabama	Jefferson	102,917
Arizona	Pima	111,479
California	Alameda	187,474
	Contra Costa	158,452
	Kern	117,231
	Orange	210,693
	Riverside	115,719
	San Bernardino	148,644
	Broward	159,370
Florida	Escambia	147,892
	Hillsborough	238,292
	Orange	245,325
	Palm Beach	167,089
	Pinellas	194,389
	Polk	104,150
	Sarasota	110,009
Georgia	Clayton	100,742
	Cobb	204,121
	Richmond	118,529
Kentucky	Jefferson	224,958
Louisiana	Jefferson	140,836
North Carolina	Cumberland	142,727

Nevada	Clark	201,775
Oregon	Multnomah	141,100
	Washington	109,348
South Carolina	Greenville	135,398
	Richland	124,684
Virginia	Arlington	152,599
	Henrico	161,204
	Chesterfield	108,348
Washington	Snohomish	103,493
	Pierce	196,113

PART 123—STATE PROGRAM REQUIREMENTS

8. The authority citation for part 123 continues to read as follows:

*48075 Authority: Clean Water Act, 33 U.S.C. 1251 et seq.

9. Section 123.25 is amended by revising paragraph (a)(9) to read as follows:

§ 123.25 Requirements for permitting.

(a) * * *

(9) § 122.26—(Storm water discharges);

* * * * *

PART 124—PROCEDURES FOR DECISIONMAKING

10. The authority citation for part 124 continues to read as follows:

Authority: Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.; Safe Drinking Water Act, 42 U.S.C. 300f et seq.; Clean Water Act, 33 U.S.C. 1251 et seq.; and Clean Air Act, 42 U.S.C. 1857 et seq.

11. Section 124.52 is revised to read as follows:

§ 124.52 Permits required on a case-by-case basis.

(a) Various sections of part 122, subpart B allow the Director to determine, on a case-by-case basis, that certain concentrated animal feeding operations (§ 122.23), concentrated aquatic animal production facilities (§ 122.24), storm water discharges (§ 122.26), and certain other facilities covered by general permits (§ 122.28) that do not generally require an individual permit may be required to obtain an individual permit because of their contributions to water pollution.

(b) Whenever the Regional Administrator decides that an individual permit is required under this section, except as provided in paragraph (c) of this section, the Regional Administrator shall notify the discharger in writing of that decision and the reasons for it, and shall send an application form with the notice. The discharger must apply for a permit under § 122.21 within 60 days of notice, unless permission for a later date is granted by the Regional Administrator. The question whether the designation was proper will remain open for consideration during the public comment period under § 124.11 or § 124.118 and in any subsequent hearing.

(c) Prior to a case-by-case determination that an individual permit is required for a storm water discharge under this section (see 40 CFR 122.26 (a)(1)(v) and (c)(1)(v)), the Regional Administrator may require the discharger to submit a permit application or other information regarding the discharge under section 308 of the CWA. In requiring such information, the Regional Administrator shall notify the discharger in writing and shall send an application form with the notice. The discharger must apply for a permit under § 122.26 within 60 days of notice, unless permission for a later date is granted by the Regional Administrator. The question whether the initial designation was proper will remain open for consideration during the public comment period under § 124.11 or § 124.118 and in any subsequent hearing.

Note: The following form will not appear in the Code of Federal Regulations.

BILLING CODE 6560-50-M

[FR Doc. 90-26315 Filed 11-9-90; 12:17 pm]

Footnotes

- 1 Indeed, the DC Circuit has held, in the storm water context, that EPA may not exempt any point source discharges of pollutants from the requirement to obtain an NPDES permit. *NRDC v. Costle*, 569 F.2d 1369, 1377 (DC Cir. 1977).
- 2 It should be noted that EPA did not promulgate the required storm water regulations by February, 1989, as contemplated by section 402(p)(4)(A). As discussed below, today's rule generally requires industrial storm water discharges to file a permit application in one year.
- 3 EPA notes that the legal issue raised by commenters regarding whether industrial storm water would be controlled to BAT if covered by a municipal permit at the MEP level is primarily a theoretical issue. As explained above, the proposal assumed that cities would establish controls on industry very similar to those established in an NPDES permit using best professional judgment. EPA's key concern, rather, is whether cities can, in fact, establish such controls. Thus, today's final rule should not appreciably change the requirements to be imposed on industrial sources, only how those requirements are enforced.
- 4 The courts in *NRDC v. Train*, 396 F.Supp. 1393 (D.D.C. 1975) *aff'd*, *NRDC v. Costle*, 568 F.2d 1369 (DC Cir. 1977), have acknowledged the administrative burden placed on the Agency by requiring individual permits for a large number of storm water discharges. These courts have recognized EPA's discretion to use certain administrative devices, such as area permits or general permits to help manage its workload. In addition, the courts have recognized flexibility in the type of permit conditions that are established, including requirements for best management practices.
- 5 The Bureau of Census defines urbanized areas to provide a description of high-density development. Urbanized areas are comprised of a central city (or cities) with a surrounding closely settled area. The population of the entire urbanized area must be greater than 50,000 persons, and the closely settled area outside of the city, the urban fringe, must generally have a population density greater than 1,000 persons per square mile (just over 1.5 persons per acre) to be included.

End of Document

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Attachment 12

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 4. Regional Water Quality Control (Refs & Annos)

Article 4. Waste Discharge Requirements (Refs & Annos)

West's Ann.Cal.Water Code § 13260

§ 13260. Reports; actual or proposed waste discharge; fees; regulations; exemptions

Effective: October 28, 2003

Currentness

(a) All of the following persons shall file with the appropriate regional board a report of the discharge, containing the information which may be required by the regional board:

(1) Any 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) Any 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) Any 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) Every 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, 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 any confined animal feeding and holding operation pursuant to this section, including, but not limited to, any 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), any 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) Any 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 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 collected 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) Any 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 any 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.

Credits

(Added by Stats.1969, c. 482, p. 1063, § 18, operative Jan. 1, 1970. Amended by Stats.1980, c. 656, p. 1834, § 1; Stats.1984, c. 268, § 32.8, eff. June 30, 1984; Stats.1985, c. 653, § 1; Stats.1985, c. 1591, § 4; Stats.1986, c. 31, § 1, eff. March 21, 1986; Stats.1986, c. 1013, § 5, eff. Sept. 23, 1986; Stats.1988, c. 1026, § 1; Stats.1989, c. 627, § 1; Stats.1989, c. 642, § 5; Gov.Reorg.Plan No. 1 of 1991, § 194, eff. July 17, 1991; Stats.1992, c. 211 (A.B.3012), § 2; Stats.1993, c. 656 (A.B.1220), § 57, eff. Oct. 1, 1993; Stats.1995, c. 28 (A.B.1247), § 20; Stats.1997, c. 775 (A.B.1186), § 1; Stats.2002, c. 1124 (A.B.3000), § 56, eff. Sept. 30, 2002; Stats.2003-2004, 1st Ex.Sess., c. 1 (A.B.10), § 3, eff. Oct. 28, 2003.)

Notes of Decisions (4)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

Attachment 13

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 4. Regional Water Quality Control (Refs & Annos)

Article 4. Waste Discharge Requirements (Refs & Annos)

West's Ann.Cal.Water Code § 13263

§ 13263. Discharge requirements; considerations by regional board; review of requirements; notice of requirements; no vested right; master reclamation permit

Currentness

(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.

Credits

(Added by Stats.1969, c. 482, p. 1063, § 18, operative Jan. 1, 1970. Amended by Stats.1992, c. 211 (A.B.3012), § 3; Stats.1995, c. 28 (A.B.1247), § 21; Stats.1995, c. 421 (S.B.572), § 2.)

Notes of Decisions (38)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

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Attachment 14

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 4. Regional Water Quality Control (Refs & Annos)

Article 4. Waste Discharge Requirements (Refs & Annos)

West's Ann.Cal.Water Code § 13274

§ 13274. Dewatered, treated, or chemically fixed sewage sludge or other biological solids; general waste discharge requirements; fee; jurisdiction

Effective: January 1, 2011

Currentness

(a)(1) The state board or a regional board, upon receipt of applications for waste discharge requirements for discharges of dewatered, treated, or chemically fixed sewage sludge and other biological solids, shall prescribe general waste discharge requirements for that sludge and those other solids. General waste discharge requirements shall replace individual waste discharge requirements for sewage sludge and other biological solids, and their prescription shall be considered to be a ministerial action.

(2) The general waste discharge requirements shall set minimum standards for agronomic applications of sewage sludge and other biological solids and the use of that sludge and those other solids as a soil amendment or fertilizer in agriculture, forestry, and surface mining reclamation, and may permit the transportation of that sludge and those other solids and the use of that sludge and those other solids at more than one site. The requirements shall include provisions to mitigate significant environmental impacts, potential soil erosion, odors, the degradation of surface water quality or fish or wildlife habitat, the accidental release of hazardous substances, and any potential hazard to the public health or safety.

(b) The state board or a regional board, in prescribing general waste discharge requirements pursuant to this section, shall comply with Division 13 (commencing with Section 21000) of the Public Resources Code and guidelines adopted pursuant to that division, and shall consult with the State Air Resources Board, the Department of Food and Agriculture, and the Department of Resources Recycling and Recovery.

(c) The state board or a regional board may charge a reasonable fee to cover the costs incurred by the board in the administration of the application process relating to the general waste discharge requirements prescribed pursuant to this section.

(d) Notwithstanding any other law, except as specified in subdivisions (f) to (i), inclusive, general waste discharge requirements prescribed by a regional board pursuant to this section supersede regulations adopted by any other state agency to regulate sewage sludge and other biological solids applied directly to agricultural lands at agronomic rates.

(e) The state board or a regional board shall review general waste discharge requirements for possible amendment upon the request of any state agency, including, but not limited to, the Department of Food and Agriculture and the State Department of Public Health, if the board determines that the request is based on new information.

(f) This section is not intended to affect the jurisdiction of the Department of Resources Recycling and Recovery to regulate the handling of sewage sludge or other biological solids for composting, deposit in a landfill, or other use.

(g) This section is not intended to affect the jurisdiction of the State Air Resources Board or an air pollution control district or air quality management district to regulate the handling of sewage sludge or other biological solids for incineration.

(h) This section is not intended to affect the jurisdiction of the Department of Food and Agriculture in enforcing Sections 14591 and 14631 of the Food and Agricultural Code and any regulations adopted pursuant to those sections, regarding the handling of sewage sludge and other biological solids sold or used as fertilizer or as a soil amendment.

(i) This section does not restrict the authority of a local government agency to regulate the application of sewage sludge and other biological solids to land within the jurisdiction of that agency, including, but not limited to, the planning authority of the Delta Protection Commission, the resource management plan of which is required to be implemented by local government general plans.

Credits

(Added by Stats.1995, c. 613 (S.B.205), § 1. Amended by Stats.1996, c. 124 (A.B.3470), § 154; Stats.1998, c. 485 (A.B.2803), § 162; Stats.2010, c. 288 (S.B.1169), § 23.)

Notes of Decisions (3)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

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Attachment 15

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 5. Enforcement and Implementation (Refs & Annos)

Article 3. Judicial Review and Enforcement (Refs & Annos)

West's Ann.Cal.Water Code § 13330

§ 13330. Petition for writ of mandate; time limitation; finality
of decision or order of board; procedures; Article 7 petitions

Effective: January 1, 2011

Currentness

(a) Not later than 30 days from the date of service of a copy of a decision or order issued by the state board under this division, other than a decision or order issued pursuant to Article 7 (commencing with Section 13550) of Chapter 7, any aggrieved party may file with the superior court a petition for writ of mandate for review thereof. An aggrieved party must file a petition for reconsideration with the state board to exhaust that party's administrative remedies only if the initial decision or order is issued under authority delegated to an officer or employee of the state board and the state board by regulation has authorized a petition for reconsideration.

(b) A party aggrieved by a final decision or order of a regional board subject to review under Section 13320 may obtain review of the decision or order of the regional board in the superior court by filing in the court a petition for writ of mandate not later than 30 days from the date on which the state board denies review.

(c) The time for filing an action or proceeding subject to Section 21167 of the Public Resources Code for a person who seeks review of the regional board's decision or order under Section 13320, or who seeks reconsideration under a state board regulation authorizing a petition for reconsideration, shall commence upon the state board's completion of that review or reconsideration.

(d) If no aggrieved party petitions for writ of mandate within the time provided by this section, a decision or order of the state board or a regional board shall not be subject to review by any court.

(e) Except as otherwise provided herein, Section 1094.5 of the Code of Civil Procedure shall govern proceedings for which petitions are filed pursuant to this section. For the purposes of subdivision (c) of Section 1094.5 of the Code of Civil Procedure, the court shall exercise its independent judgment on the evidence in any case involving the judicial review of a decision or order of the state board issued under Section 13320, or a decision or order of a regional board for which the state board denies review under Section 13320, other than a decision or order issued under Section 13323.

(f) A party aggrieved by a decision or order issued by the state board under Article 7 (commencing with Section 13550) of Chapter 7 may petition for reconsideration or judicial review in accordance with Chapter 4 (commencing with Section 1120) of Part 1 of Division 2.

(g) For purposes of this section, a decision or order includes a final action in an adjudicative proceeding and an action subject to Section 11352 of the Government Code, but does not include an action subject to Section 11353 of the Government Code or the adoption, amendment, or repeal of a regulation under Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

Credits

(Added by Stats.1969, c. 482, p. 1069, § 18, operative Jan. 1, 1970. Amended by Stats.1996, c. 659 (A.B.3036), § 24; Stats.2010, c. 288 (S.B.1169), § 31.)

Notes of Decisions (21)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

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Attachment 16

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 5.5. Compliance with the Provisions of the Federal Water Pollution Control Act as Amended in 1972 (Refs & Annos)

West's Ann.Cal.Water Code § 13370

§ 13370. Legislative findings and declaration

Currentness

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.

Credits

(Added by Stats.1972, c. 1256, p. 2485, § 1, eff. Dec. 19, 1972. Amended by Stats.1978, c. 746, p. 2343, § 1; Stats.1980, c. 676, p. 2028, § 319; Stats.1987, c. 1189, § 1.)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

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Attachment 17

West's Annotated California Codes

Water Code (Refs & Annos)

Division 7. Water Quality (Refs & Annos)

Chapter 5.5. Compliance with the Provisions of the Federal Water Pollution Control Act as Amended in 1972 (Refs & Annos)

West's Ann.Cal.Water Code § 13372

§ 13372. Construction and application of chapter

Effective: January 1, 2004

Currentness

(a) This chapter shall be construed to ensure consistency with the requirements for state programs implementing the Federal Water Pollution Control Act and acts amendatory thereof or supplementary thereto. To the extent other provisions of this division are consistent with the provisions of this chapter and with the requirements for state programs implementing the Federal Water Pollution Control Act and acts amendatory thereof or supplementary thereto, those provisions apply to actions and procedures provided for in this chapter. The provisions of this chapter shall prevail over other provisions of this division to the extent of any inconsistency. The provisions of this chapter apply only to actions required under the Federal Water Pollution Control Act and acts amendatory thereof or supplementary thereto.

(b) The provisions of Section 13376 requiring the filing of a report for the discharge of dredged or fill material and the provisions of this chapter relating to the issuance of dredged or fill material permits by the state board or a regional board shall be applicable only to discharges for which the state has an approved permit program, in accordance with the provisions of the Federal Water Pollution Control Act, as amended, for the discharge of dredged or fill material.

Credits

(Added by Stats.1972, c. 1256, p. 2485, § 1, eff. Dec. 19, 1972. Amended by Stats.1987, c. 1189, § 3; Stats.2003, c. 683 (A.B.897), § 5.)

Notes of Decisions (1)

Current with all 2010 Reg.Sess. laws; all 2009-2010 1st through 8th Ex.Sess. laws; and all Props. on 2010 ballots.

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Attachment 18

Barclays Official California Code of Regulations Currentness

Title 23. Waters

Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

Chapter 6. Review by State Board of Action or Failure to Act by Regional Board

23 CCR § 2050.5

§ 2050.5. Complete Petitions; Responses; Time Limits.

(a) Upon receipt of a petition that complies with section 2050 the state board may either dismiss the petition pursuant to section 2052, or may provide written notification to the petitioner, informing the discharger (if not the petitioner), the regional board, and other interested persons that they shall have 30 days from the date of mailing such notification to file a response to the petition with the state board. The regional board shall file the administrative record within this 30-day period, including a copy of the tape recording of the regional board action, or a transcript, if available. Responses to petitions and any other submissions shall be served concurrently upon the petitioner, the discharger (if not the petitioner) and the regional board, by any method listed in section 2050(b). Any points and authorities filed in response to the petition shall include citations to documents or the transcript of the regional board hearing where appropriate. The time for filing a response or the administrative record may be extended by the state board. Additional submissions will be allowed only upon written request and at the discretion of the state board.

(b) The state board shall review and act on the petition within 270 days from the date of mailing the notification described in (a), unless a hearing is held by the state board. If a hearing is held, the state board shall act on the petition within 330 days from the date of mailing the notification described in (a), or within 120 days of the close of the hearing, whichever is later. If formal disposition is not made by the state board within these time limits the petition is deemed denied. These time limits may be extended for a period not to exceed 60 days with written agreement from the petitioner. The time limits for formal disposition do not apply while action on a petition is held in abeyance, as provided in section 2050.5(d).

(c) The state board may, on its motion, review a regional board's action or failure to act for any reason, including lack of formal disposition by the state board within the time limits provided in (b).

(d) A petition may be held in abeyance at the request or with the agreement of the petitioner.

(1) A request or agreement to hold a petition in abeyance must be in writing and shall be provided to the state board, the regional board, and the discharger, if not the petitioner.

(2) Petitions may be held in abeyance unless the regional board provides reasonable grounds for objection. For petitions challenging the assessment of administrative civil liability or penalties, written agreement from the regional board is required.

(3) The time limit for formal disposition shall be tolled during the time a petition is held in abeyance, and shall recommence running when the petition is removed from abeyance.

Note: Authority cited: Section-1058, Water Code. Reference: Section 13320, Water Code.

HISTORY

1. New section filed 3-16-79 as an emergency; effective upon filing (Register 79, No. 11).
2. Certificate of Compliance filed 7-13-79 (Register 79, No. 28).

3. Amendment filed 12-7-81; effective thirtieth day thereafter (Register 81, No. 50).

4. Amendment of section heading and section filed 9-23-2003; operative 10-23-2003 (Register 2003, No. 39).

This database is current through 2/18/11 Register 2011, No. 7

23 CCR § 2050.5, 23 CA ADC § 2050.5

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Attachment 19

Barclays Official California Code of Regulations Currentness

Title 23. Waters

Division 3. State Water Resources Control Board and Regional Water Quality Control Boards

Chapter 9. Waste Discharge Reports and Requirements

Article 3. Waste Discharges from Point Sources to Navigable Waters

23 CCR § 2235.2

§ 2235.2. Compliance with Regulations of the U.S. Environmental Protection Agency.

Waste discharge requirements for discharge from point sources to navigable waters shall be issued and administered in accordance with the currently applicable federal regulations for the National Pollutant Discharge Elimination System (NPDES) program.

Note: Authority cited: Section 1058, Water Code. Reference: Chapter 5.5 (commencing with Section 13370) of Division 7, Water Code.

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23 CCR § 2235.2, 23 CA ADC § 2235.2

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Attachment 20

104 S.Ct. 2778

Supreme Court of the United States

CHEVRON, U.S.A., INC., Petitioner,

v.

NATURAL RESOURCES

DEFENSE COUNCIL, INC., et al.

AMERICAN IRON AND STEEL

INSTITUTE, et al., Petitioners,

v.

NATURAL RESOURCES

DEFENSE COUNCIL, INC., et al.

William D. RUCKELSHAUS, Administrator,
Environmental Protection Agency, Petitioner,

v.

NATURAL RESOURCES

DEFENSE COUNCIL, INC., et al. *

Nos. 82-1005, 82-1247 and 82-1591. Argued

Feb. 29, 1984. Decided June 25, 1984.

Rehearing Denied Aug. 16, 1984.

See 468 U.S. 1227, 105 S.Ct. 28, 29.

Petition was filed for review of order of the Environmental Protection Agency. The Court of Appeals, 685 F.2d 718, vacated regulations, and certiorari was granted. The Supreme Court, Justice Stevens, held that Environmental Protection Agency regulation allowing states to treat all pollution-emitting devices within same industrial grouping as though they were encased within single "bubble" was based on permissible construction of term "stationary source" in Clean Air Act Amendments.

Reversed.

Syllabus^{a1}

The Clean Air Act Amendments of 1977 impose certain requirements on States **2779 that have not achieved the national air quality standards established by the Environmental Protection Agency (EPA) pursuant to earlier legislation, including the requirement that such "nonattainment" States establish a permit program regulating "new or modified major stationary sources" of air pollution. Generally, a permit may not be issued for such sources unless

stringent conditions are met. EPA regulations promulgated in 1981 to implement the permit requirement allow a State to adopt a plantwide definition of the term "stationary source," under which an existing plant that contains several pollution-emitting devices may install or modify one piece of equipment without meeting the permit conditions if the alteration will not increase the total emissions from the plant, thus allowing a State to treat all of the pollution-emitting devices within the same industrial grouping as though they were encased within a single "bubble." Respondents filed a petition for review in the Court of Appeals, which set aside the regulations embodying the "bubble concept" as contrary to law. Although recognizing that the amended Clean Air Act does not explicitly define what Congress envisioned as a "stationary source" to which the permit program should apply, and that the issue was not squarely addressed in the legislative history, the court concluded that, in view of the purpose of the nonattainment program to improve rather than merely maintain air quality, a plantwide definition was "inappropriate," while stating it was mandatory in programs designed to maintain existing air quality.

Held: The EPA's plantwide definition is a permissible construction of the statutory term "stationary source." Pp. 2781-2793.

(a) With regard to judicial review of an agency's construction of the statute which it administers, if Congress has not directly spoken to the precise question at issue, the question for the court is whether the *838 agency's answer is based on a permissible construction of the statute. Pp. 2781-2783.

(b) Examination of the legislation and its history supports the Court of Appeals' conclusion that Congress did not have a specific intention as to the applicability of the "bubble concept" in these cases. Pp. 2783-2786.

(c) The legislative history of the portion of the 1977 Amendments dealing with nonattainment areas plainly discloses that in the permit program Congress sought to accommodate the conflict between the economic interest in permitting capital improvements to continue and the environmental interest in improving air quality. Pp. 2786-2787.

(d) Prior to the 1977 Amendments, the EPA had used a plantwide definition of the term "source," but in 1980 the EPA ultimately adopted a regulation that, in essence, applied the basic reasoning of the Court of Appeals here, precluding use of the "bubble concept" in nonattainment States' programs designed to enhance air quality. However,

when a new administration took office 1981, the EPA, in promulgating the regulations involved here, reevaluated the various arguments that had been advanced in connection with the proper definition of the term "source" and concluded that the term should be given the plantwide definition in nonattainment areas. Pp. 2787-2790.

(e) Parsing the general terms in the text of the amended Clean Air Act—particularly the provisions of §§ 302(j) and 111(a)(3) pertaining to the definition of "source"—does not reveal any actual intent of Congress as to the issue in these cases. To the extent any congressional "intent" can be discerned from the statutory language, it would appear that the listing of overlapping, illustrative terms was intended to enlarge, rather than to confine, the scope of the EPA's power to regulate particular sources in order to effectuate the policies of the Clean Air Act. Similarly, the legislative history is consistent with the **2780 view that the EPA should have broad discretion in implementing the policies of the 1977 Amendments. The plantwide definition is fully consistent with the policy of allowing reasonable economic growth, and the EPA has advanced a reasonable explanation for its conclusion that the regulations serve environmental objectives as well. The fact that the EPA has from time to time changed its interpretation of the term "source" does not lead to the conclusion that no deference should be accorded the EPA's interpretation of the statute. An agency, to engage in informed rulemaking, must consider varying interpretations and the wisdom of its policy on a continuing basis. Policy arguments concerning the "bubble concept" should be addressed to legislators or administrators, not to judges. The EPA's interpretation of the statute here represents a reasonable accommodation of manifestly competing interests and is entitled to deference. Pp. 2790-2793.

222 U.S.App.D.C. 268, 685 F.2d 718 (1982), reversed.

Attorneys and Law Firms

Deputy Solicitor General Bator argued the cause for petitioners in all cases. With him on the briefs for petitioner in No. 82-1591 were *Solicitor General Lee, Acting Assistant Attorney General Habicht, Deputy Assistant Attorney General Walker, Mark I. Levy, Anne S. Almy, William F. Pedersen, and Charles S. Carter. Michael H. Salinsky and Kevin M. Fong* filed briefs for petitioner in No. 82-1005. *Robert A. Emmett, David Ferber, Stark Ritchie, Theodore L. Garrett, Patricia A. Barald, Louis E. Tosi, William L. Patberg, Charles F. Lettow, and Barton C. Green* filed briefs for petitioners in No. 82-1247.

*839 *David D. Doniger* argued the cause and filed a brief for respondents.†>>>

† Briefs of *amici curiae* urging reversal were filed for the American Gas Association by *John A. Myler*; for the Mid-America Legal Foundation by *John M. Cannon, Susan W. Wanat, and Ann P. Sheldon*; and for the Pacific Legal Foundation by *Ronald A. Zumbrun and Robin L. Rivett*.

A brief of *amici curiae* urging affirmance was filed for the Commonwealth of Pennsylvania et al. by *LeRoy S. Zimmerman*, Attorney General of Pennsylvania, *Thomas Y. Au, Duane Woodard*, Attorney General of Colorado, *Richard L. Griffith*, Assistant Attorney General, *Joseph I. Lieberman*, Attorney General of Connecticut, *Robert A. Whitehead, Jr.*, Assistant Attorney General, *James S. Tierney*, Attorney General of Maine, *Robert Abrams*, Attorney General of New York, *Marcia J. Cleveland and Mary L. Lyndon*, Assistant Attorneys General, *Irwin I. Kimmelman*, Attorney General of New Jersey, *John J. Easton, Jr.*, Attorney General of Vermont, *Merideth Wright*, Assistant Attorney General, *Bronson C. La Follette*, Attorney General of Wisconsin, and *Maryann Sumi*, Assistant Attorney General.

James D. English, Mary-Win O'Brien, and Bernard Kleiman filed a brief for the United Steelworkers of America, AFL-CIO-CLC, as *amicus curiae*.

Opinion

Justice STEVENS delivered the opinion of the Court.

In the Clean Air Act Amendments of 1977, Pub.L. 95-95, 91 Stat. 685, Congress enacted certain requirements applicable *840 to States that had not achieved the national air quality standards established by the Environmental Protection Agency (EPA) pursuant to earlier legislation. The amended Clean Air Act required these "nonattainment" States to establish a permit program regulating "new or modified major stationary sources" of air pollution. Generally, a permit may not be issued for a new or modified major stationary source unless several stringent conditions are met.¹ The EPA regulation promulgated to implement this permit requirement allows a State to adopt a plantwide definition of the term "stationary source."² Under this definition, an existing plant that contains several pollution-emitting devices may install or modify one piece of equipment without meeting the permit conditions if the alteration will not increase the total emissions from the plant. The question presented by these cases is whether EPA's decision to allow States to treat all of the pollution-emitting devices within the same industrial grouping as though they were encased within a

single "bubble" is based on a reasonable construction of the statutory term "stationary source."

I

The EPA regulations containing the plantwide definition of the term stationary source were promulgated on October *841 14, 1981. 46 Fed.Reg. 50766. Respondents³ filed a timely petition for review in the United States Court of Appeals for the District of Columbia Circuit pursuant to 42 U.S.C. § 7607(b)(1).⁴ The Court of Appeals **2781 set aside the regulations. *Natural Resources Defense Council, Inc. v. Gorsuch*, 222 U.S.App.D.C. 268, 685 F.2d 718 (1982).

The court observed that the relevant part of the amended Clean Air Act "does not explicitly define what Congress envisioned as a 'stationary source, to which the permit program ... should apply,'" and further stated that the precise issue was not "squarely addressed in the legislative history." *Id.*, at 273, 685 F.2d, at 723. In light of its conclusion that the legislative history bearing on the question was "at best contradictory," it reasoned that "the purposes of the nonattainment program should guide our decision here." *Id.*, at 276, n. 39, 685 F.2d, at 726, n. 39.⁵ Based on two of its precedents concerning the applicability of the bubble concept to certain Clean Air Act programs,⁶ the court stated that the bubble concept was "mandatory" in programs designed merely to maintain existing air quality, but held that it was "inappropriate" in programs enacted to improve air quality. *Id.*, at 276, 685 F.2d, at 726. Since the purpose of the permit *842 program—its "raison d'être," in the court's view—was to improve air quality, the court held that the bubble concept was inapplicable in these cases under its prior precedents. *Ibid.* It therefore set aside the regulations embodying the bubble concept as contrary to law. We granted certiorari to review that judgment, 461 U.S. 956, 103 S.Ct. 2427, 77 L.Ed.2d 1314 (1983), and we now reverse.

1 The basic legal error of the Court of Appeals was to adopt a static judicial definition of the term "stationary source" when it had decided that Congress itself had not commanded that definition. Respondents do not defend the legal reasoning of the Court of Appeals.⁷ Nevertheless, since this Court reviews judgments, not opinions,⁸ we must determine whether the Court of Appeals' legal error resulted in an erroneous judgment on the validity of the regulations.

II

2 3 4 When a court reviews an agency's construction of the statute which it administers, it is confronted with two questions. First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, *843 as well as the agency, must give effect to the unambiguously expressed intent of Congress.⁹ If, however, **2782 the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute,¹⁰ as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.¹¹

5 "The power of an administrative agency to administer a congressionally created ... program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress." *Morton v. Ruiz*, 415 U.S. 199, 231, 94 S.Ct. 1055, 1072, 39 L.Ed.2d 270 (1974). If Congress has explicitly left a gap for the agency to fill, there is an express delegation *844 of authority to the agency to elucidate a specific provision of the statute by regulation. Such legislative regulations are given controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute.¹² Sometimes the legislative delegation to an agency on a particular question is implicit rather than explicit. In such a case, a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency.¹³

6 We have long recognized that considerable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer,¹⁴ and the principle of deference to administrative interpretations.

"has been consistently followed by this Court whenever decision as to the meaning or reach of a statute has involved reconciling conflicting policies, and a full **2783 understanding of the force of the statutory policy in the given situation has depended upon more than ordinary knowledge respecting the matters subjected to agency regulations. See, e.g., *National Broadcasting Co. v. United States*, 319 U.S.

190 [63 S.Ct. 997, 87 L.Ed. 1344]; *Labor Board v. Hearst Publications, Inc.*, 322 U.S. 111 [64 S.Ct. 851, 88 L.Ed. 1170]; *845 *Republic Aviation Corp. v. Labor Board*, 324 U.S. 793 [65 S.Ct. 982, 89 L.Ed. 1372]; *Securities & Exchange Comm'n v. Chenery Corp.*, [332] 322 U.S. 194 [67 S.Ct. 1575, 91 L.Ed. 1995]; *Labor Board v. Seven-Up Bottling Co.*, 344 U.S. 344 [73 S.Ct. 287, 97 L.Ed. 377].

"... If this choice represents a reasonable accommodation of conflicting policies that were committed to the agency's care by the statute, we should not disturb it unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." *United States v. Shimer*, 367 U.S. 374, 382, 383, 81 S.Ct. 1554, 1560, 1561, 6 L.Ed.2d 908 (1961).

Accord Capital Cities Cable, Inc. v. Crisp, 467 U.S. 691, 699-700, 104 S.Ct. 2694, 2700-2701, 81 L.Ed.2d 580 (1984).

In light of these well-settled principles it is clear that the Court of Appeals misconceived the nature of its role in reviewing the regulations at issue. Once it determined, after its own examination of the legislation, that Congress did not actually have an intent regarding the applicability of the bubble concept to the permit program, the question before it was not whether in its view the concept is "inappropriate" in the general context of a program designed to improve air quality, but whether the Administrator's view that it is appropriate in the context of this particular program is a reasonable one. Based on the examination of the legislation and its history which follows, we agree with the Court of Appeals that Congress did not have a specific intention on the applicability of the bubble concept in these cases, and conclude that the EPA's use of that concept here is a reasonable policy choice for the agency to make.

III

In the 1950's and the 1960's Congress enacted a series of statutes designed to encourage and to assist the States in curtailing air pollution. See generally *Train v. Natural Resources Defense Council, Inc.*, 421 U.S. 60, 63-64, 95 S.Ct. 1470, 1474-1475, 43 L.Ed.2d 731 (1975). The Clean Air Amendments of 1970, Pub.L. 91-604, 84 Stat. 1676, "sharply increased federal authority and responsibility *846 in the continuing effort to combat air pollution," 421 U.S., at 64, 95 S.Ct., at 1474, but continued to assign "primary responsibility for assuring air quality" to the several States, 84 Stat. 1678. Section 109 of the 1970 Amendments directed the EPA to promulgate National Ambient Air Quality Standards

(NAAQS's)¹⁵ and § 110 directed the States to develop plans (SIP's) to implement the standards within specified deadlines. In addition, § 111 provided that major new sources of pollution would be required to conform to technology-based performance standards; the EPA was directed to publish a list of categories of sources of pollution and to establish new source performance standards (NSPS) for each. Section 111(e) prohibited the operation of any new source in violation of a performance standard.

Section 111(a) defined the terms that are to be used in setting and enforcing standards of performance for new stationary sources. It provided:

"For purposes of this section:

.....

"(3) The term 'stationary source' means any building, structure, facility, or installation which emits or may emit any air pollutant." 84 Stat. 1683.

**2784 In the 1970 Amendments that definition was not only applicable to the NSPS program required by § 111, but also was made applicable to a requirement of § 110 that each state implementation plan contain a procedure for reviewing the location of any proposed new source and preventing its construction if it would preclude the attainment or maintenance of national air quality standards.¹⁶

In due course, the EPA promulgated NAAQS's, approved SIP's, and adopted detailed regulations governing NSPS's *847 for various categories of equipment. In one of its programs, the EPA used a plantwide definition of the term "stationary source." In 1974, it issued NSPS's for the nonferrous smelting industry that provided that the standards would not apply to the modification of major smelting units if their increased emissions were offset by reductions in other portions of the same plant.¹⁷

Nonattainment

The 1970 legislation provided for the attainment of primary NAAQS's by 1975. In many areas of the country, particularly the most industrialized States, the statutory goals were not attained.¹⁸ In 1976, the 94th Congress was confronted with this fundamental problem, as well as many others respecting pollution control. As always in this area, the legislative struggle was basically between interests seeking strict schemes to reduce pollution rapidly to eliminate its

social costs and interests advancing the economic concern that strict schemes would retard industrial development with attendant social costs. The 94th Congress, confronting these competing interests, was unable to agree on what response was in the public interest: legislative proposals to deal with nonattainment failed to command the necessary consensus.¹⁹

In light of this situation, the EPA published an Emissions Offset Interpretative Ruling in December 1976, see 41 Fed.Reg. 55524, to “fill the gap,” as respondents put it, until Congress acted. The Ruling stated that it was intended to *848 address “the issue of whether and to what extent national air quality standards established under the Clean Air Act may restrict or prohibit growth of major new or expanded stationary air pollution sources.” *Id.*, at 55524-55525. In general, the Ruling provided that “a major new source may locate in an area with air quality worse than a national standard only if stringent conditions can be met.” *Id.*, at 55525. The Ruling gave primary emphasis to the rapid attainment of the statute’s environmental goals.²⁰ Consistent with that emphasis, the construction of every new source in nonattainment areas had to meet the “lowest achievable emission rate” under the current state of the art for that type of facility. See *Ibid.* The 1976 Ruling did not, however, explicitly adopt or reject the “bubble concept.”²¹

**2785 IV

The Clean Air Act Amendments of 1977 are a lengthy, detailed, technical, complex, and comprehensive response to a major social issue. A small portion of the statute—91 Stat. *849 745-751 (Part D of Title I of the amended Act, 42 U.S.C. §§ 7501-7508)—expressly deals with nonattainment areas. The focal point of this controversy is one phrase in that portion of the Amendments.²²

Basically, the statute required each State in a nonattainment area to prepare and obtain approval of a new SIP by July 1, 1979. In the interim those States were required to comply with the EPA’s interpretative Ruling of December 21, 1976. 91 Stat. 745. The deadline for attainment of the primary NAAQS’s was extended until December 31, 1982, and in some cases until December 31, 1987, but the SIP’s were required to contain a number of provisions designed to achieve the goals as expeditiously as possible.²³

*850 Most significantly for our purposes, the statute provided that each plan shall

“(6) require permits for the construction and operation of new or modified major stationary sources in accordance with section 173....” *Id.*, 747.

Before issuing a permit, § 173 requires (1) the state agency to determine that there will be sufficient emissions reductions in the region to offset the emissions from the new source and also to allow for reasonable further progress toward attainment, or that the increased emissions will not exceed an allowance for growth established pursuant to § 172(b)(5); (2) the applicant to certify that his other sources in the State are in compliance with the SIP, (3) the agency to determine that the applicable SIP is otherwise being implemented, and (4) the proposed source to comply with the lowest achievable emission rate (LAER).²⁴

**2786 *851 The 1977 Amendments contain no specific reference to the “bubble concept.” Nor do they contain a specific definition of the term “stationary source,” though they did not disturb the definition of “stationary source” contained in § 111(a)(3), applicable by the terms of the Act to the NSPS program. Section 302(j), however, defines the term “major stationary source” as follows:

“(j) Except as otherwise expressly provided, the terms ‘major stationary source’ and ‘major emitting facility’ mean any stationary facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).” 91 Stat. 770.

V

The legislative history of the portion of the 1977 Amendments dealing with nonattainment areas does not contain any specific comment on the “bubble concept” or the question whether a plantwide definition of a stationary source is permissible under the permit program. It does, however, plainly disclose that in the permit program Congress sought to accommodate the conflict between the economic interest in permitting capital improvements to continue and the environmental interest in improving air quality. Indeed, the House Committee Report identified the economic interest as one of the “two main purposes” of this section of the bill. It stated:

“Section 117 of the bill, adopted during full committee markup establishes a new section 127 of the Clean Air

Act. The section has two main purposes: (1) to allow reasonable economic growth to continue in an area while making reasonable further progress to assure attainment of the standards by a fixed date; and (2) to allow *852 States greater flexibility for the former purpose than EPA's present interpretative regulations afford.

"The new provision allows States with nonattainment areas to pursue one of two options. First, the State may proceed under EPA's present 'tradeoff' or 'offset' ruling. The Administrator is authorized, moreover, to modify or amend that ruling in accordance with the intent and purposes of this section.

"The State's second option would be to revise its implementation plan in accordance with this new provision." H.R.Rep. No. 95-294, p. 211 (1977), U.S.Code Cong. & Admin.News 1977, pp. 1077, 1290.²⁵

The portion of the Senate Committee Report dealing with nonattainment areas states generally that it was intended to "supersede the EPA administrative approach," and that expansion should be permitted if a State could "demonstrate that these facilities can be accommodated within its overall plan to provide for attainment of air quality standards." S.Rep. No. 95-127, **2787 p. 55 (1977). The Senate Report notes the value of "case-by-case review of each new or modified major source of pollution that seeks to locate in a region exceeding an ambient standard," explaining that such a review "requires matching reductions from existing sources against *853 emissions expected from the new source in order to assure that introduction of the new source will not prevent attainment of the applicable standard by the statutory deadline." Ibid. This description of a case-by-case approach to plant additions, which emphasizes the net consequences of the construction or modification of a new source, as well as its impact on the overall achievement of the national standards, was not, however, addressed to the precise issue raised by these cases.

Senator Muskie made the following remarks:

"I should note that the test for determining whether a new or modified source is subject to the EPA interpretative regulation [the Offset Ruling]-and to the permit requirements of the revised implementation plans under the conference bill-is whether the source will emit a pollutant into an area which is exceeding a national ambient air quality standard for that pollutant-or precursor. Thus, a new source is still subject to such requirements as 'lowest achievable emission rate' even if it is constructed as a replacement for an older

facility resulting in a net reduction from previous emission levels.

"A source-including an existing facility ordered to convert to coal-is subject to all the nonattainment requirements as a modified source if it makes any physical change which increases the amount of any air pollutant for which the standards in the area are exceeded." 123 Cong.Rec. 26847 (1977).

VI

As previously noted, prior to the 1977 Amendments, the EPA had adhered to a plantwide definition of the term "source" under a NSPS program. After adoption of the 1977 Amendments, proposals for a plantwide definition were considered in at least three formal proceedings.

In January 1979, the EPA considered the question whether the same restriction on new construction in nonattainment areas that had been included in its December 1976 Ruling *854 should be required in the revised SIP's that were scheduled to go into effect in July 1979. After noting that the 1976 Ruling was ambiguous on the question "whether a plant with a number of different processes and emission points would be considered a single source," 44 Fed.Reg. 3276 (1979), the EPA, in effect, provided a bifurcated answer to that question. In those areas that did not have a revised SIP in effect by July 1979, the EPA rejected the plantwide definition; on the other hand, it expressly concluded that the plantwide approach would be permissible in certain circumstances if authorized by an approved SIP. It stated:

"Where a state implementation plan is revised and implemented to satisfy the requirements of Part D, including the reasonable further progress requirement, the plan requirements for major modifications may exempt modifications of existing facilities that are accompanied by intrasource offsets so that there is no net increase in emissions. The agency endorses such exemptions, which would provide greater flexibility to sources to effectively manage their air emissions at least cost." Ibid.²⁶

**2788 *855 In April, and again in September 1979, the EPA published additional comments in which it indicated that revised SIP's could adopt the plantwide definition of source in nonattainment areas in certain circumstances. See id., at 20372, 20379, 51924, 51951, 51958. On the latter occasion, the EPA made a formal rulemaking proposal that would have permitted the use of the "bubble concept" for

new installations within a plant as well as for modifications of existing units. It explained:

“‘Bubble’ Exemption: The use of offsets inside the same source is called the ‘bubble.’ EPA proposes use of the definition of ‘source’ (see above) to limit the use of the bubble under nonattainment requirements in the following respects:

“i. Part D SIPs that include all requirements needed to assure reasonable further progress and attainment by the deadline under section 172 and that are being carried out need not restrict the use of a plantwide bubble, the same as under the PSD proposal.

“ii. Part D SIPs that do not meet the requirements specified must limit use of the bubble by including a definition of ‘installation’ as an identifiable piece of process equipment.”²⁷

*856 Significantly, the EPA expressly noted that the word “source” might be given a plantwide definition for some purposes and a narrower definition for other purposes. It wrote:

“Source means any building structure, facility, or installation which emits or may emit any regulated pollutant. ‘Building, structure, facility or installation’ means plant in PSD areas and in nonattainment areas except where the growth prohibitions would apply or where no adequate SIP exists or is being carried out.” *Id.*, at 51925.²⁸

The EPA's summary of its proposed Ruling discloses a flexible rather than rigid definition of the term “source” to implement various policies and programs:

“In summary, EPA is proposing two different ways to define source for different kinds of NSR programs:

“(1) For PSD and complete Part D SIPs, review would apply only to plants, with an unrestricted plant-wide bubble.

“(2) For the offset ruling, restrictions on construction, and incomplete Part D SIPs, review would apply to both plants and individual pieces of process equipment, causing the plant-wide bubble not to apply for new and modified major pieces of equipment.

“In addition, for the restrictions on construction, EPA is proposing to define ‘major modification’ so as to prohibit the bubble entirely. Finally, an alternative discussed but not favored is to have only pieces of process equipment reviewed,

resulting in no plant-wide bubble and allowing minor pieces of equipment to escape **2789 NSR *857 regardless of whether they are within a major plant.” *Id.*, at 51934.

In August 1980, however, the EPA adopted a regulation that, in essence, applied the basic reasoning of the Court of Appeals in these cases. The EPA took particular note of the two then-recent Court of Appeals decisions, which had created the bright-line rule that the “bubble concept” should be employed in a program designed to maintain air quality but not in one designed to enhance air quality. Relying heavily on those cases,²⁹ EPA adopted a dual definition of “source” for nonattainment areas that required a permit whenever a change in either the entire plant, or one of its components, would result in a significant increase in emissions even if the increase was completely offset by reductions elsewhere in the plant. The EPA expressed the opinion that this interpretation was “more consistent with congressional intent” than the plantwide definition because it “would bring in more sources or modifications for review,” 45 Fed.Reg. 52697 (1980), but its primary legal analysis was predicated on the two Court of Appeals decisions.

In 1981 a new administration took office and initiated a “Government-wide reexamination of regulatory burdens and complexities.” 46 Fed.Reg. 16281. In the context of that *858 review, the EPA reevaluated the various arguments that had been advanced in connection with the proper definition of the term “source” and concluded that the term should be given the same definition in both nonattainment areas and PSD areas.

In explaining its conclusion, the EPA first noted that the definitional issue was not squarely addressed in either the statute or its legislative history and therefore that the issue involved an agency “judgment as how to best carry out the Act.” *Ibid.* It then set forth several reasons for concluding that the plantwide definition was more appropriate. It pointed out that the dual definition “can act as a disincentive to new investment and modernization by discouraging modifications to existing facilities” and “can actually retard progress in air pollution control by discouraging replacement of older, dirtier processes or pieces of equipment with new, cleaner ones.” *Ibid.* Moreover, the new definition “would simplify EPA's rules by using the same definition of ‘source’ for PSD, nonattainment new source review and the construction moratorium. This reduces confusion and inconsistency.” *Ibid.* Finally, the agency explained that additional requirements that remained in place would accomplish the fundamental purposes of achieving

attainment with NAAQS's as expeditiously as possible.³⁰ These conclusions were **2790 expressed *859 in a proposed rulemaking in August 1981 that was formally promulgated in October. See *id.*, at 50766.

VII

7 In this Court respondents expressly reject the basic rationale of the Court of Appeals' decision. That court viewed the statutory definition of the term "source" as sufficiently flexible to cover either a plantwide definition, a narrower definition covering each unit within a plant, or a dual definition that could apply to both the entire "bubble" and its components. It interpreted the policies of the statute, however, to mandate the plantwide definition in programs designed to maintain clean air and to forbid it in programs designed to improve air quality. Respondents place a fundamentally different construction on the statute. They contend that the text of the Act requires the EPA to use a dual definition-if either a component of a plant, or the plant as a whole, emits over 100 tons of pollutant, it is a major stationary source. They thus contend that the EPA rules adopted in 1980, insofar as they apply to the maintenance of the quality of clean air, as well as the 1981 rules which apply to nonattainment areas, violate the statute.³¹

Statutory Language

The definition of the term "stationary source" in § 111(a)(3) refers to "any building, structure, facility, or installation" which emits air pollution. See *supra*, at 2784. This definition is applicable only to the NSPS program by the express terms of the statute; the text of the statute does not make this definition *860 applicable to the permit program. Petitioners therefore maintain that there is no statutory language even relevant to ascertaining the meaning of stationary source in the permit program aside from § 302(j), which defines the term "major stationary source." See *supra*, at 2786. We disagree with petitioners on this point.

The definition in § 302(j) tells us what the word "major" means-a source must emit at least 100 tons of pollution to qualify-but it sheds virtually no light on the meaning of the term "stationary source." It does equate a source with a facility-a "major emitting facility" and a "major stationary source" are synonymous under § 302(j). The ordinary meaning of the term "facility" is some collection of integrated elements which has been designed and constructed to achieve some purpose. Moreover, it is certainly no affront

to common English usage to take a reference to a major facility or a major source to connote an entire plant as opposed to its constituent parts. Basically, however, the language of § 302(j) simply does not compel any given interpretation of the term "source."

Respondents recognize that, and hence point to § 111(a)(3). Although the definition in that section is not literally applicable to the permit program, it sheds as much light on the meaning of the word "source" as anything in the statute.³² As respondents point out, use of the words "building, structure, facility, or installation," as the definition of source, could be read to impose the permit conditions on an individual building that is a part of a plant.³³ A "word may have a character of its own not to be submerged by its association." *861 *Russell Motor Car Co. v. United States*, 261 U.S. 514, 519, 43 S.Ct. 428, 429, 67 L.Ed. 778 (1923). On the other hand, the meaning of a word must be ascertained in the context of achieving particular objectives, and the words associated with it may **2791 indicate that the true meaning of the series is to convey a common idea. The language may reasonably be interpreted to impose the requirement on any discrete, but integrated, operation which pollutes. This gives meaning to all of the terms-a single building, not part of a larger operation, would be covered if it emits more than 100 tons of pollution, as would any facility, structure, or installation. Indeed, the language itself implies a "bubble concept" of sorts: each enumerated item would seem to be treated as if it were encased in a bubble. While respondents insist that each of these terms must be given a discrete meaning, they also argue that § 111(a)(3) defines "source" as that term is used in § 302(j). The latter section, however, equates a source with a facility, whereas the former defines "source" as a facility, among other items.

We are not persuaded that parsing of general terms in the text of the statute will reveal an actual intent of Congress.³⁴

*862 We know full well that this language is not dispositive; the terms are overlapping and the language is not precisely directed to the question of the applicability of a given term in the context of a larger operation. To the extent any congressional "intent" can be discerned from this language, it would appear that the listing of overlapping, illustrative terms was intended to enlarge, rather than to confine, the scope of the agency's power to regulate particular sources in order to effectuate the policies of the Act.

Legislative History

In addition, respondents argue that the legislative history and policies of the Act foreclose the plantwide definition, and that the EPA's interpretation is not entitled to deference because it represents a sharp break with prior interpretations of the Act.

Based on our examination of the legislative history, we agree with the Court of Appeals that it is unilluminating. The general remarks pointed to by respondents "were obviously not made with this narrow issue in mind and they cannot be said to demonstrate a Congressional desire...." *Jewell Ridge Coal Corp. v. Mine Workers*, 325 U.S. 161, 168-169, 65 S.Ct. 1063, 1067-1068, 89 L.Ed. 1534 (1945). Respondents' argument based on the legislative history relies heavily on Senator Muskie's observation that a new source is subject to the LAER requirement.³⁵ But the full statement is ambiguous and like the text of § 173 itself, this comment does not tell us what a new source is, much less that it is to have an inflexible definition. We find that the legislative history as a whole is silent on the precise issue before us. It is, however, consistent with the view that the EPA should have broad discretion in implementing the policies of the 1977 Amendments.

*863 More importantly, that history plainly identifies the policy concerns that motivated the enactment; the plantwide definition is fully consistent with one of those concerns **2792 -the allowance of reasonable economic growth-and, whether or not we believe it most effectively implements the other, we must recognize that the EPA has advanced a reasonable explanation for its conclusion that the regulations serve the environmental objectives as well. See *supra*, at 2789-2790, and n. 29; see also *supra*, at 2788, n. 27. Indeed, its reasoning is supported by the public record developed in the rulemaking process,³⁶ as well as by certain private studies.³⁷

Our review of the EPA's varying interpretations of the word "source"-both before and after the 1977 Amendments-convince us that the agency primarily responsible for administering this important legislation has consistently interpreted it flexibly-not in a sterile textual vacuum, but in the context of implementing policy decisions in a technical and complex arena. The fact that the agency has from time to time changed its interpretation of the term "source" does not, as respondents argue, lead us to conclude that no deference should be accorded the agency's interpretation of the statute. An initial agency interpretation is not instantly carved in stone. On the contrary, the agency, to engage in informed rulemaking, must consider varying interpretations *864 and

the wisdom of its policy on a continuing basis. Moreover, the fact that the agency has adopted different definitions in different contexts adds force to the argument that the definition itself is flexible, particularly since Congress has never indicated any disapproval of a flexible reading of the statute.

Significantly, it was not the agency in 1980, but rather the Court of Appeals that read the statute inflexibly to command a plantwide definition for programs designed to maintain clean air and to forbid such a definition for programs designed to improve air quality. The distinction the court drew may well be a sensible one, but our labored review of the problem has surely disclosed that it is not a distinction that Congress ever articulated itself, or one that the EPA found in the statute before the courts began to review the legislative work product. We conclude that it was the Court of Appeals, rather than Congress or any of the decisionmakers who are authorized by Congress to administer this legislation, that was primarily responsible for the 1980 position taken by the agency.

Policy

The arguments over policy that are advanced in the parties' briefs create the impression that respondents are now waging in a judicial forum a specific policy battle which they ultimately lost in the agency and in the 32 jurisdictions opting for the "bubble concept," but one which was never waged in the Congress. Such policy arguments are more properly addressed to legislators or administrators, not to judges.³⁸

*865 In these cases, the Administrator's interpretation represents a reasonable accommodation of manifestly competing in **2793 interests and is entitled to deference: the regulatory scheme is technical and complex,³⁹ the agency considered the matter in a detailed and reasoned fashion,⁴⁰ and the decision involves reconciling conflicting policies.⁴¹ Congress intended to accommodate both interests, but did not do so itself on the level of specificity presented by these cases. Perhaps that body consciously desired the Administrator to strike the balance at this level, thinking that those with great expertise and charged with responsibility for administering the provision would be in a better position to do so; perhaps it simply did not consider the question at this level; and perhaps Congress was unable to forge a coalition on either side of the question, and those on each side decided to take their chances with the scheme devised by the agency. For judicial purposes, it matters not which of these things occurred.

Judges are not experts in the field, and are not part of either political branch of the Government. Courts must, in some cases, reconcile competing political interests, but not on the basis of the judges' personal policy preferences. In contrast, an agency to which Congress has delegated policy-making responsibilities may, within the limits of that delegation, properly rely upon the incumbent administration's views of wise policy to inform its judgments. While agencies are not directly accountable to the people, the Chief Executive is, and it is entirely appropriate for this political branch of the Government to make such policy choices-resolving the competing interests which Congress itself either inadvertently did not resolve, or intentionally left to be resolved by the *866 agency charged with the administration of the statute in light of everyday realities.

When a challenge to an agency construction of a statutory provision, fairly conceptualized, really centers on the wisdom of the agency's policy, rather than whether it is a reasonable choice within a gap left open by Congress, the challenge must fail. In such a case, federal judges-who have no constituency-have a duty to respect legitimate policy choices made by those who do. The responsibilities for assessing the wisdom of such policy choices and resolving the struggle between competing views of the public interest are not judicial ones:

"Our Constitution vests such responsibilities in the political branches." *TVA v. Hill*, 437 U.S. 153, 195, 98 S.Ct. 2279, 2302, 57 L.Ed.2d 117 (1978).

We hold that the EPA's definition of the term "source" is a permissible construction of the statute which seeks to accommodate progress in reducing air pollution with economic growth. "The Regulations which the Administrator has adopted provide what the agency could allowably view as ... [an] effective reconciliation of these twofold ends..." *United States v. Shimer*, 367 U.S., at 383, 81 S.Ct., at 1560.

The judgment of the Court of Appeals is reversed.

It is so ordered.

Justice MARSHALL and Justice REHNQUIST took no part in the consideration or decision of these cases.

Justice O'CONNOR took no part in the decision of these cases.

Parallel Citations

104 S.Ct. 2778, 21 ERC 1049, 81 L.Ed.2d 694, 14 Env'tl. L. Rep. 20,507

Footnotes

* US Reports Title: *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*

a1 The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Lumber Co.*, 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

1 Section 172(b)(6), 42 U.S.C. § 7502(b)(6), provides:

"The plan provisions required by subsection (a) shall-

.....

"(6) require permits for the construction and operation of new or modified major stationary sources in accordance with section 173 (relating to permit requirements)." 91 Stat. 747.

2 "(i) 'Stationary source' means any building, structure, facility, or installation which emits or may emit any air pollutant subject to regulation under the Act.

"(ii) 'Building, structure, facility, or installation' means all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except the activities of any vessel." 40 CFR §§ 51.18(j)(1)(i) and (ii) (1983).

3 National Resources Defense Council, Inc., Citizens for a Better Environment, Inc., and North Western Ohio Lung Association, Inc.

4 Petitioners, *Chevron U.S.A. Inc.*, American Iron and Steel Institute, American Petroleum Institute, Chemical Manufacturers Association, Inc., General Motors Corp., and Rubber Manufacturers Association were granted leave to intervene and argue in support of the regulation.

5 The court remarked in this regard:

"We regret, of course, that Congress did not advert specifically to the bubble concept's application to various Clean Air Act programs, and note that a further clarifying statutory directive would facilitate the work of the agency and of the court in their endeavors to serve the legislators' will." 222 U.S.App.D.C., at 276, n. 39, 685 F.2d, at 726, n. 39.

6 *Alabama Power Co. v. Costle*, 204 U.S.App.D.C. 51, 636 F.2d 323 (1979); *ASARCO Inc. v. EPA*, 188 U.S.App.D.C. 77, 578 F.2d 319 (1978).

- 7 Respondents argued below that EPA's plantwide definition of "stationary source" is contrary to the terms, legislative history, and purposes of the amended Clean Air Act. The court below rejected respondents' arguments based on the language and legislative history of the Act. It did agree with respondents contention that the regulations were inconsistent with the purposes of the Act, but did not adopt the construction of the statute advanced by respondents here. Respondents rely on the arguments rejected by the Court of Appeals in support of the judgment, and may rely on any ground that finds support in the record. See *Ryerson v. United States*, 312 U.S. 405, 408, 61 S.Ct. 656, 658, 85 L.Ed. 917 (1941); *LeTulle v. Scofield*, 308 U.S. 415, 421, 60 S.Ct. 313, 316, 84 L.Ed. 355 (1940); *Langnes v. Green*, 282 U.S. 531, 533-539, 51 S.Ct. 243, 244-246, 75 L.Ed. 520 (1931).
- 8 E.g., *Black v. Cutter Laboratories*, 351 U.S. 292, 297, 76 S.Ct. 824, 827, 100 L.Ed. 1188 (1956); *J.E. Riley Investment Co. v. Commissioner*, 311 U.S. 55, 59, 61 S.Ct. 95, 97, 85 L.Ed. 36 (1940); *Williams v. Norris*, 12 Wheat. 117, 120, 6 L.Ed. 571 (1827); *McClung v. Silliman*, 6 Wheat. 598, 603, 5 L.Ed. 340 (1821).
- 9 The judiciary is the final authority on issues of statutory construction and must reject administrative constructions which are contrary to clear congressional intent. See, e.g., *FEC v. Democratic Senatorial Campaign Committee*, 454 U.S. 27, 32, 102 S.Ct. 38, 42, 70 L.Ed.2d 23 (1981); *SEC v. Sloan*, 436 U.S. 103, 117-118, 98 S.Ct. 1702, 1711-1712, 56 L.Ed.2d 148 (1978); *FMC v. Seatrain Lines, Inc.*, 411 U.S. 726, 745-746, 93 S.Ct. 1773, 1784-1785, 36 L.Ed.2d 620 (1973); *Volkswagenwerk v. FMC*, 390 U.S. 261, 272, 88 S.Ct. 929, 935, 19 L.Ed.2d 1090 (1968); *NLRB v. Brown*, 380 U.S. 278, 291, 85 S.Ct. 980, 988, 13 L.Ed.2d 839 (1965); *FTC v. Colgate-Palmolive Co.*, 380 U.S. 374, 385, 85 S.Ct. 1035, 1042, 13 L.Ed.2d 904 (1965); *Social Security Board v. Nierotko*, 327 U.S. 358, 369, 66 S.Ct. 637, 643, 90 L.Ed. 718 (1946); *Burnet v. Chicago Portrait Co.*, 285 U.S. 1, 16, 52 S.Ct. 275, 281, 76 L.Ed. 587 (1932); *Webster v. Luther*, 163 U.S. 331, 342, 16 S.Ct. 963, 967, 41 L.Ed. 179 (1896). If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.
- 10 See generally, R. Pound, *The Spirit of the Common Law* 174-175 (1921).
- 11 The court need not conclude that the agency construction was the only one it permissibly could have adopted to uphold the construction, or even the reading the court would have reached if the question initially had arisen in a judicial proceeding. *FEC v. Democratic Senatorial Campaign Committee*, 454 U.S., at 39, 102 S.Ct., at 46; *Zenith Radio Corp. v. United States*, 437 U.S. 443, 450, 98 S.Ct. 2441, 2445, 57 L.Ed.2d 337 (1978); *Train v. Natural Resources Defense Council, Inc.*, 421 U.S. 60, 75, 95 S.Ct. 1470, 1479, 43 L.Ed.2d 731 (1975); *Udall v. Tallman*, 380 U.S. 1, 16, 85 S.Ct. 792, 801, 13 L.Ed.2d 616 (1965); *Unemployment Compensation Comm'n v. Aragon*, 329 U.S. 143, 153, 67 S.Ct. 245, 250, 91 L.Ed. 136 (1946); *McLaren v. Fleischer*, 256 U.S. 477, 480-481, 41 S.Ct. 577, 577-578, 65 L.Ed. 1052 (1921).
- 12 See, e.g., *United States v. Morton*, 467 U.S. 822, 834, 104 S.Ct. 2769, 2776, 81 L.Ed.2d 680 (1984) *Schweiker v. Gray Panthers*, 453 U.S. 34, 44, 101 S.Ct. 2633, 2640, 69 L.Ed.2d 460 (1981); *Batterton v. Francis*, 432 U.S. 416, 424-426, 97 S.Ct. 2399, 2404-2406, 53 L.Ed.2d 448 (1977); *American Telephone & Telegraph Co. v. United States*, 299 U.S. 232, 235-237, 57 S.Ct. 170, 172-173, 81 L.Ed. 142 (1936).
- 13 E.g., *INS v. Jong Ha Wang*, 450 U.S. 139, 144, 101 S.Ct. 1027, 1031, 67 L.Ed.2d 123 (1981); *Train v. Natural Resources Defense Council, Inc.*, 421 U.S., at 87, 95 S.Ct., at 1485.
- 14 *Aluminum Co. of America v. Central Lincoln Peoples' Util. Dist.*, 467 U.S. 380, 389, 104 S.Ct. 2472, 2479-2480, 81 L.Ed.2d 301 (1984); *Blum v. Bacon*, 457 U.S. 132, 141, 102 S.Ct. 2355, 2361, 72 L.Ed.2d 728 (1982); *Union Electric Co. v. EPA*, 427 U.S. 246, 256, 96 S.Ct. 2518, 2525, 49 L.Ed.2d 474 (1976); *Investment Company Institute v. Camp*, 401 U.S. 617, 626-627, 91 S.Ct. 1091, 1097, 28 L.Ed.2d 367 (1971); *Unemployment Compensation Comm'n v. Aragon*, 329 U.S., at 153-154, 67 S.Ct., at 250-251; *NLRB v. Hearst Publications, Inc.*, 322 U.S. 111, 131, 64 S.Ct. 851, 860, 88 L.Ed. 1170 (1944); *McLaren v. Fleischer*, 256 U.S., at 480-481, 41 S.Ct., at 577-578; *Webster v. Luther*, 163 U.S., at 342, 16 S.Ct., at 967; *Brown v. United States*, 113 U.S. 568, 570-571, 5 S.Ct. 648, 649-650, 28 L.Ed. 1079 (1885); *United States v. Moore*, 95 U.S. 760, 763, 24 L.Ed. 588 (1878); *Edwards' Lessee v. Darby*, 12 Wheat. 206, 210, 6 L.Ed. 603 (1827).
- 15 Primary standards were defined as those whose attainment and maintenance were necessary to protect the public health, and secondary standards were intended to specify a level of air quality that would protect the public welfare.
- 16 See §§ 110(a)(2)(D) and 110(a)(4).
- 17 The Court of Appeals ultimately held that this plantwide approach was prohibited by the 1970 Act, see *ASARCO Inc.*, 188 U.S.App.D.C., at 83-84, 578 F.2d, at 325-327. This decision was rendered after enactment of the 1977 Amendments, and hence the standard was in effect when Congress enacted the 1977 Amendments.
- 18 See Report of the National Commission on Air Quality, *To Breathe Clean Air*, 3.3-20 through 3.3-33 (1981).
- 19 Comprehensive bills did pass both Chambers of Congress; the Conference Report was rejected in the Senate. 122 Cong.Rec. 34375-34403, 34405-34418 (1976).
- 20 For example, it stated:

- “Particularly with regard to the primary NAAQS's, Congress and the Courts have made clear that economic considerations must be subordinated to NAAQS achievement and maintenance. While the ruling allows for some growth in areas violating a NAAQS if the net effect is to insure further progress toward NAAQS achievement, the Act does not allow economic growth to be accommodated at the expense of the public health.” 41 Fed.Reg. 55527 (1976).
- 21 In January 1979, the EPA noted that the 1976 Ruling was ambiguous concerning this issue:
“A number of commenters indicated the need for a more explicit definition of ‘source.’ Some readers found that it was unclear under the 1976 Ruling whether a plant with a number of different processes and emission points would be considered a single source. The changes set forth below define a source as ‘any structure, building, facility, equipment, installation, or operation (or combination thereof) which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person (or by persons under common control.’ This definition precludes a large plant from being separated into individual production lines for purposes of determining applicability of the offset requirements.” 44 Fed.Reg. 3276.
- 22 Specifically, the controversy in these cases involves the meaning of the term “major stationary sources” in § 172(b)(6) of the Act, 42 U.S.C. § 7502(b)(6). The meaning of the term “proposed source” in § 173(2) of the Act, 42 U.S.C. § 7503(2), is not at issue.
- 23 Thus, among other requirements, § 172(b) provided that the SIP's shall-
“(3) require, in the interim, reasonable further progress (as defined in section 171(1)) including such reduction in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology;
“(4) include a comprehensive, accurate, current inventory of actual emissions from all sources (as provided by rule of the Administrator) of each such pollutant for each such area which is revised and resubmitted as frequently as may be necessary to assure that the requirements of paragraph (3) are met and to assess the need for additional reductions to assure attainment of each standard by the date required under paragraph (1);
“(5) expressly identify and quantify the emissions, if any, of any such pollutant which will be allowed to result from the construction and operation of major new or modified stationary sources for each such area; ...
.....
“(8) contain emission limitations, schedules of compliance and such other measures as may be necessary to meet the requirements of this section.” 91 Stat. 747.
Section 171(1) provided:
“(1) The term ‘reasonable further progress’ means annual incremental reductions in emissions of the applicable air pollutant (including substantial reductions in the early years following approval or promulgation of plan provisions under this part and section 110(a)(2)(I) and regular reductions thereafter) which are sufficient in the judgment of the Administrator, to provide for attainment of the applicable national ambient air quality standard by the date required in section 172(a).” Id., at 746.
- 24 Section 171(3) provides:
“(3) The term ‘lowest achievable emission rate’ means for any source, that rate of emissions which reflects-
“(A) the most stringent emission limitation which is contained in the implementation plan of any State for such class or category of source, unless the owner or operator of the proposed source demonstrates that such limitations are not achievable, or
“(B) the most stringent emission limitation which is achieved in practice by such class or category of source, whichever is more stringent. “In no event shall the application of this term permit a proposed new or modified source, to emit any pollutant in excess of the amount allowable under applicable new source standards of performance.”
The LAER requirement is defined in terms that make it even more stringent than the applicable new source performance standard developed under § 111 of the Act, as amended by the 1970 statute.
- 25 During the floor debates Congressman Waxman remarked that the legislation struck
“a proper balance between environmental controls and economic growth in the dirty air areas of America.... There is no other single issue which more clearly poses the conflict between pollution control and new jobs. We have determined that neither need be compromised....
“This is a fair and balanced approach, which will not undermine our economic vitality, or impede achievement of our ultimate environmental objectives.” 123 Cong.Rec. 27076 (1977).
The second “main purpose” of the provision-allowing the States “greater flexibility” than the EPA's interpretative Ruling-as well as the reference to the EPA's authority to amend its Ruling in accordance with the intent of the section, is entirely consistent with the view that Congress did not intend to freeze the definition of “source” contained in the existing regulation into a rigid statutory requirement.
- 26 In the same Ruling, the EPA added:
“The above exemption is permitted under the SIP because, to be approved under Part D, plan revisions due by January 1979 must contain adopted measures assuring that reasonable further progress will be made. Furthermore, in most circumstances, the measures adopted by January 1979 must be sufficient to actually provide for attainment of the standards by the dates required under the Act,

- and in all circumstances measures adopted by 1982 must provide for attainment. See Section 172 of the Act and 43 FR 21673-21677 (May 19, 1978). Also, Congress intended under Section 173 of the Act that States would have some latitude to depart from the strict requirements of this Ruling when the State plan is revised and is being carried out in accordance with Part D. Under a Part D plan, therefore, there is less need to subject a modification of an existing facility to LAER and other stringent requirements if the modification is accompanied by sufficient intrasource offsets so that there is no net increase in emissions." 44 Fed.Reg. 3277 (1979).
- 27 Id., at 51926. Later in that Ruling, the EPA added:
"However, EPA believes that complete Part D SIPs, which contain adopted and enforceable requirements sufficient to assure attainment, may apply the approach proposed above for PSD, with plant-wide review but no review of individual pieces of equipment. Use of only a plant-wide definition of source will permit plant-wide offsets for avoiding NSR of new or modified pieces of equipment. However, this is only appropriate once a SIP is adopted that will assure the reductions in existing emissions necessary for attainment. See 44 FR 3276 col. 3 (January 16, 1979). If the level of emissions allowed in the SIP is low enough to assure reasonable further progress and attainment, new construction or modifications with enough offset credit to prevent an emission increase should not jeopardize attainment." Id., at 51933.
- 28 In its explanation of why the use of the "bubble concept" was especially appropriate in preventing significant deterioration (PSD) in clean air areas, the EPA stated: "In addition, application of the bubble on a plant-wide basis encourages voluntary upgrading of equipment, and growth in productive capacity." Id., at 51932.
- 29 "The dual definition also is consistent with Alabama Power and ASARCO. Alabama Power held that EPA had broad discretion to define the constituent terms of 'source' so as best to effectuate the purposes of the statute. Different definitions of 'source' can therefore be used for different sections of the statute....
"Moreover, Alabama Power and ASARCO taken together suggest that there is a distinction between Clean Air Act programs designed to enhance air quality and those designed only to maintain air quality....
.....
"Promulgation of the dual definition follows the mandate of Alabama Power, which held that, while EPA could not define 'source' as a combination of sources, EPA had broad discretion to define 'building,' 'structure,' 'facility,' and 'installation' so as to best accomplish the purposes of the Act." 45 Fed.Reg. 52697 (1980).
- 30 It stated:
"5. States will remain subject to the requirement that for all nonattainment areas they demonstrate attainment of NAAQS as expeditiously as practicable and show reasonable further progress toward such attainment. Thus, the proposed change in the mandatory scope of nonattainment new source review should not interfere with the fundamental purpose of Part D of the Act.
"6. New Source Performance Standards (NSPS) will continue to apply to many new or modified facilities and will assure use of the most up-to-date pollution control techniques regardless of the applicability of nonattainment area new source review.
"7. In order to avoid nonattainment area new source review, a major plant undergoing modification must show that it will not experience a significant net increase in emissions. Where overall emissions increase significantly, review will continue to be required." 46 Fed.Reg. 16281 (1981).
- 31 "What EPA may not do, however, is define all four terms to mean only plants. In the 1980 PSD rules, EPA did just that. EPA compounded the mistake in the 1981 rules here under review, in which it abandoned the dual definition." Brief for Respondents 29, n. 56.
- 32 We note that the EPA in fact adopted the language of that definition in its regulations under the permit program. 40 CFR §§ 51.18(j) (1)(i), (ii) (1983).
- 33 Since the regulations give the States the option to define an individual unit as a source, see 40 CFR § 51.18(j)(1) (1983), petitioners do not dispute that the terms can be read as respondents suggest.
- 34 The argument based on the text of § 173, which defines the permit requirements for nonattainment areas, is a classic example of circular reasoning. One of the permit requirements is that "the proposed source is required to comply with the lowest achievable emission rate" (LAER). Although a State may submit a revised SIP that provides for the waiver of another requirement—the "offset condition"—the SIP may not provide for a waiver of the LAER condition for any proposed source. Respondents argue that the plantwide definition of the term "source" makes it unnecessary for newly constructed units within the plant to satisfy the LAER requirement if their emissions are offset by the reductions achieved by the retirement of older equipment. Thus, according to respondents, the plantwide definition allows what the statute explicitly prohibits—the waiver of the LAER requirement for the newly constructed units. But this argument proves nothing because the statute does not prohibit the waiver unless the proposed new unit is indeed subject to the permit program. If it is not, the statute does not impose the LAER requirement at all and there is no need to reach any waiver question. In other words, § 173 of the statute merely deals with the consequences of the definition of the term "source" and does not define the term.

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- 35 See supra, at 2787. We note that Senator Muskie was not critical of the EPA's use of the "bubble concept" in one NSPS program prior to the 1977 amendments. See *ibid.*
- 36 See, for example, the statement of the New York State Department of Environmental Conservation, pointing out that denying a source owner flexibility in selecting options made it "simpler and cheaper to operate old, more polluting sources than to trade up...." App. 128-129.
- 37 "Economists have proposed that economic incentives be substituted for the cumbersome administrative-legal framework. The objective is to make the profit and cost incentives that work so well in the marketplace work for pollution control.... [The 'bubble' or 'netting' concept] is a first attempt in this direction. By giving a plant manager flexibility to find the places and processes within a plant that control emissions most cheaply, pollution control can be achieved more quickly and cheaply." L. Lave & G. Omenn, *Cleaning Air: Reforming the Clean Air Act 28* (1981) (footnote omitted).
- 38 Respondents point out if a brand new factory that will emit over 100 tons of pollutants is constructed in a nonattainment area, that plant must obtain a permit pursuant to § 172(b)(6) and in order to do so, it must satisfy the § 173 conditions, including the LAER requirement. Respondents argue if an old plant containing several large emitting units is to be modernized by the replacement of one or more units emitting over 100 tons of pollutant with a new unit emitting less-but still more than 100 tons-the result should be no different simply because "it happens to be built not at a new site, but within a pre-existing plant." Brief for Respondents 4.
- 39 See e.g., *Aluminum Co. of America v. Central Lincoln Peoples' Util. Dist.*, 467 U.S., at 390, 104 S.Ct., at 2480 (1984).
- 40 See *SEC v. Sloan*, 436 U.S., at 117, 98 S.Ct., at 1711; *Adamo Wrecking Co. v. United States*, 434 U.S. 275, 287, n. 5, 98 S.Ct. 566, 574, n. 5, 54 L.Ed.2d 538 (1978); *Skidmore v. Swift & Co.*, 323 U.S. 134, 140, 65 S.Ct. 161, 164, 89 L.Ed. 124 (1944).
- 41 See *Capital Cities Cable, Inc. v. Crisp*, 467 U.S. at 699-700, 104 S.Ct. at 2700-2701; *United States v. Shimer*, 367 U.S. 374, 382, 81 S.Ct. 1554, 1560, 6 L.Ed.2d 908 (1961).

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Attachment 21

568 F.2d 1369

United States Court of Appeals,
District of Columbia Circuit.

NATURAL RESOURCES
DEFENSE COUNCIL, INC. *

v.

Douglas M. COSTLE, Administrator,
Environmental Protection Agency, et al.,
National Forest Products Association, Appellant.

NATURAL RESOURCES
DEFENSE COUNCIL, INC., etc.

v.

Douglas M. COSTLE, Administrator,
Environmental Protection Agency, et al.,
National Milk Producers Federation, Appellant.

NATURAL RESOURCES
DEFENSE COUNCIL, INC., etc.

v.

Douglas M. COSTLE, Administrator, and
Environmental Protection Agency, et al., Appellants.
NATURAL RESOURCES DEFENSE COUNCIL, INC.

v.

Douglas M. COSTLE, Administrator,
Environmental Protection Agency, Colorado
River Water Conservation District, Appellant.

¶ Nos. 75-2056, 75-2066, 75-2067
and 75-2235. Argued Dec. 3,
1976. Decided Nov. 16, 1977.

The National Resources Defense Council, Inc. challenged authority of the Environmental Protection Agency Administrator to exempt categories of point sources from permit requirements of the Federal Water Pollution Control Act Amendments of 1972. The United States District Court for the District of Columbia, Thomas A. Flannery, J., 396 F.Supp. 1393, granted summary judgment to the NRDC and the Administrator and others appealed. The Court of Appeals, Leventhal, Circuit Judge, held that: (1) legislative history shows that National Pollution Discharge Elimination System permit is the only means by which discharger may escape total prohibition of discharges from point sources found in FWPCA; (2) national effluent limitations need not be uniform as precondition for NPDES program to include pollution from agricultural, silvicultural, and storm runoff

point sources, and while technological or administrative infeasibility of such limitations may warrant adjustments in permit program it does not authorize Administrator to exclude relevant point sources; (3) where numeric effluent limitations are infeasible, permit conditions may proscribe industry practices that aggravate problems of point source pollution as well as require monitoring and reporting of effluent level; and (4) a number of administrative devices, including general or area permits are available to aid EPA in practical administration of NPDES program, and FWPCA, however tight in some respects, leaves some leeway to EPA in interpretation of that statute and affords agency some means to consider matters of feasibility.

Affirmed in accordance with opinion.

MacKinnon, Circuit Judge, filed a concurring opinion.

**1370 **148 Syllabus by the Court*

The National Resources Defense Council, Inc. (NRDC) challenged the authority of the EPA Administrator to exempt categories of point sources from the permit requirements of s 402 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. s 1342 (Supp. V 1975). On appeal from a grant of summary judgment to NRDC, held:

1. The legislative history makes clear that Congress intended the National Pollution Discharge Elimination System (NPDES) permit to be the only means by which a discharger may escape the total prohibition of discharges from point sources found in FWPCA s 301(a), 33 U.S.C. s 1311(a) (Supp. V 1975).
2. It is not necessary that national effluent limitations be uniform as a precondition for the NPDES program to include pollution from agricultural, silvicultural, and storm water runoff point sources. The technological or administrative infeasibility **1371 **149* of such limitations may warrant adjustments in the permit program, but it does not authorize the Administrator to exclude the relevant point source from the NPDES program.
3. Where numeric effluent limitations are infeasible, permit conditions may proscribe industry practices that aggravate the problems of point source pollution as well as require monitoring and reporting of effluent levels.
4. A number of administrative devices, including general or area permits, are available to aid EPA in the practical administration of the NPDES program. The FWPCA,

however tight in some respects, leaves some leeway to EPA in the interpretation of that statute and, in that regard, affords the agency some means to consider matters of feasibility.

Appeals from the United States District Court for the District of Columbia (D.C. Civil 1629-73).

Attorneys and Law Firms

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Charles W. Bills, Washington, D. C., with whom James R. Murphy, Washington, D. C., was on the brief for appellant in No. 75-2066.

G. William Frick, Atty., Dept. of Justice, Kansas City, Mo., of the bar of the Supreme Court of Missouri, pro hac vice by special leave of court for appellants in No. 75-2067. Peter R. Taft, Asst. Atty. Gen., Robert V. Zener, Gen. Counsel, Environmental Protection Agency, Edmund B. Clark, Lloyd S. Guerci, Larry A. Boggs, Attys., Dept. of Justice and Pamela P. Quinn, Atty., Environmental Protection Agency, Washington, D. C., were on the brief for appellants in No. 75-2067.

Christopher D. Williams, Washington D. C., with whom Kenneth Balcomb and Robert L. McCarty, Washington, D. C., were on the brief for appellant in No. 75-2235.

J. G. Speth, Washington, D. C., for appellee.

Theodore O. Torve, Asst. Atty. Gen., State of Washington, Olympia, Wash., filed a brief on behalf of the State of Washington as amicus curiae urging reversal in No. 75-2056. Richard E. Schwartz, Jefferson City, Mo., filed a brief on behalf of Iron and Steel Institute, as amicus curiae urging reversal in No. 75-2067.

John L. Hill, Atty. Gen., State of Texas, and David M. Kendall, Jr., First Asst. Atty. Gen., State of Texas, Austin, Tex., filed a brief on behalf of State of Texas as amicus curiae urging reversal in No. 75-2067.

Before BAZELON, Chief Judge, and LEVENTHAL and MacKINNON, Circuit Judges.

Opinion

Opinion for the Court filed by LEVENTHAL, Circuit Judge.

Concurring Opinion filed by MacKINNON, Circuit Judge.

LEVENTHAL, Circuit Judge:

In 1972 Congress passed the Federal Water Pollution Control Act Amendments (hereafter referred to as the "FWPCA" or the "Act"¹). It was a dramatic response to accelerating environmental degradation of rivers, lakes and streams in this country. The Act's stated goal is to eliminate the discharge of pollutants into the Nation's waters by 1985. This goal is to be achieved through the enforcement of the strict timetables and technology-based effluent limitations established by the Act.

The FWPCA sets up a permit program, the National Pollutant Discharge Elimination System (NPDES), as the primary means of enforcing the Act's effluent limitations.² At issue in this case is the authority *1372 **150 of the Administrator of the Environmental Protection Agency to make exemptions from this permit component of the FWPCA.

Section 402 of the FWPCA, 33 U.S.C. s 1342 (Supp. V 1975), provides that under certain circumstances the EPA Administrator "may . . . issue a permit for the discharge of any pollutant" notwithstanding the general proscription of pollutant discharges found in s 301 of the Act. 33 U.S.C. s 1311 (Supp. V 1975). The discharge of a pollutant is defined in the FWPCA as "any addition of any pollutant to navigable waters from any point source" or "any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or floating craft." 33 U.S.C. s 1362(12) (Supp. V 1975). In 1973 the EPA Administrator issued regulations that exempted certain categories of "point sources" of pollution from the permit requirements of s 402.³ The Administrator's purported authority to make such exemptions turns on the proper interpretation of s 402.

A "point source" is defined in s 502(14) as "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."⁴

The 1973 regulations exempted discharges from a number of classes of point sources from the permit requirements of s 402, including all silvicultural point sources; all confined animal feeding operations below a certain size; all irrigation return flows from areas of less than 3,000 contiguous acres or 3,000 noncontiguous acres that use the same drainage system; all nonfeedlot, nonirrigation agricultural point sources; and separate storm sewers containing only storm runoff

uncontaminated by any industrial or commercial activity.⁵ The EPA's *1373 **151 rationale for these exemptions is that in order to conserve the Agency's enforcement resources for more significant point sources of pollution, it is necessary to exclude these smaller sources of pollutant discharges from the permit program.

The National Resources Defense Council, Inc. (NRDC) sought a declaratory judgment that the regulations are unlawful under the FWPCA. Specifically, NRDC contended that the Administrator does not have authority to exempt any class of point source from the permit requirements of s 402. It argued that Congress in enacting ss 301, 402 of the FWPCA intended to prohibit the discharge of pollutants from all point sources unless a permit had been issued to the discharger under s 402 or unless the point source was explicitly exempted from the permit requirements by statute. The District Court granted NRDC's motion for summary judgment. It held that the FWPCA does not authorize the Administrator to exclude any class of point sources from the permit program. *NRDC v. Train*, 396 F.Supp. 1393 (D.D.C.1975). The EPA has appealed to this court. It is joined on appeal by a number of defendant-intervenors, National Forest Products Association (NFPA), National Milk Producers Federation (NMPF), and the Colorado River Conservation District.⁶

This case thus presents principally a question of statutory interpretation. EPA also argues that even if Congress intended to include the pertinent categories in the permit program, the regulations exempting them should be upheld on a doctrine of administrative infeasibility, i. e., the regulations should be upheld as a deviation from the literal terms of the FWPCA that is necessary to permit the Agency to realize the principal objectives of the Act.

I. LEGISLATIVE HISTORY

The principal purpose of the FWPCA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."⁷ The Act's ultimate objective, to eliminate the discharge of pollutants into navigable waters by 1985, is to be achieved by means of two intermediate steps. As of July 1, 1977, all point sources other than publicly owned treatment works were to have achieved effluent limitations that require application of the "best practicable control technology."⁸ These same point sources must reduce their effluent discharges by July 1, 1983, to meet limitations

determined by application of the "best available technology economically achievable" for each category of point source.⁹

The technique for enforcing these effluent limitations is straightforward. Section 301(a) of the FWPCA provides:

Except as in compliance with this section and sections 302, 306, 307, 318, 402, and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.¹⁰

Appellants concede that if the regulations are valid, it must be because they are authorized *1374 **152 by s 402; none of the other sections listed in s 301(a) afford grounds for relieving the exempted point sources from the prohibition of s 301.¹¹

Section 402 provides in relevant part that the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 301(a), upon condition that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308, and 403 of this Act, or prior to the taking of the necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act.

The NPDES permit program established by s 402 is central to the enforcement of the FWPCA. It translates general effluent limitations into the specific obligations of a discharger. As this court noted in *NRDC v. Train*, 166 U.S.App.D.C. 312, 315, 510 F.2d 692, 695 (1975), the Act "relies primarily on a permit program for the achievement of effluent limitations . . . to attain its goals." The comments in floor debates of Senator Muskie, the leading Congressional sponsor of the Act, makes this clear.¹²

The appellants argue that s 402 not only gives the Administrator the discretion to grant or refuse a permit, but also gives him the authority to exempt classes of point sources from the permit requirements entirely. They argue that this interpretation is supported by the legislative history of s 402 and the fact that unavailability of this exemption power would place unmanageable administrative burdens on the EPA.

1 Putting aside for the moment the appellants' administrative infeasibility argument, we agree with the District Court that the legislative history makes clear that Congress intended the NPDES permit to be the only means by which a discharger

from a point source may escape the total prohibition of s 301(a). This intention is evident in both Committee Reports. In discussing s 301 the House Report stressed:

Any discharge of a pollutant without a permit issued by the Administrator under section 318, or by the Administrator or the State under section 402 or by the Secretary of the Army under section 404 is unlawful. Any discharge of a pollutant not in compliance with the conditions or limitations of such a permit is also unlawful.¹³

The Senate Report echoed this interpretation:

(Section 301) clearly establishes that the discharge of pollutants is unlawful. Unlike its predecessor program which permitted the discharge of certain amounts of pollutants under the conditions described above, this legislation would clearly establish that no one has the right *1375 **153 to pollute that pollution continues because of technological limits, not because of any inherent rights to use the nation's waterways for the purpose of disposing of wastes.

The program proposed by this Section will be implemented through permits issued in Section 402. The Administrator will have the capability and the mandate to press technology and economics to achieve those levels of effluent reduction which he believes to be practicable in the first instance and attainable in the second.¹⁴

2 The EPA argues that since s 402 provides that "the Administrator may . . . issue a permit for the discharge of any pollutant" (emphasis added), he is given the discretion to exempt point sources from the permit requirements altogether. This argument, as to what Congress meant by the word "may" in s 402, is insufficient to rebut the plain language of the statute and the committee reports. We say this with due awareness of the deference normally due "the construction of a new statute by its implementing agency." *NRDC v. Train*, 166 U.S.App.D.C. at 326, 510 F.2d at 706; see *Zuber v. Allen*, 396 U.S. 168, 192, 90 S.Ct. 314, 24 L.Ed.2d 345 (1969); *Udall v. Tallman*, 380 U.S. 1, 16, 85 S.Ct. 792, 13 L.Ed.2d 616 (1965). The use of the word "may" in s 402 means only that the Administrator has discretion either to issue a permit or to leave the discharger subject to the total proscription of s 301. This is the natural reading, and the one that retains the fundamental logic of the statute.

Under the EPA's interpretation the Administrator would have broad discretion to exempt large classes of point sources from any or all requirements of the FWPCA. This is a result that the legislators did not intend. Rather they stressed that the FWPCA was a tough law that relied on explicit mandates to a degree uncommon in legislation of this type. A statement of Senator Jennings Randolph of West Virginia, Chairman of the Senate Committee responsible for the Act, is illustrative.

I stress very strongly that Congress has become very specific on the steps it wants taken with regard to environmental protection. We have written into law precise standards and definite guidelines on how the environment should be protected. We have done more than just provide broad directives for administrators to follow. . . .

In the past, too many of our environmental laws have contained vague generalities. What we are attempting to do now is provide laws that can be administered with certainty and precision. I think that is what the American people expect that we do.¹⁵

There are innumerable references in the legislative history to the effect that the Act is founded on the "basic premise that a discharge of pollutants without a permit is unlawful and that discharges not in compliance with the limitations and conditions for a permit are unlawful."¹⁶ Even when infeasibility arguments were squarely raised, *1376 **154 the legislature declined to abandon the permit requirement.¹⁷ We stand by our previous interpretation of the Act's scheme for the enforcement of effluent limitations:

After dates set forth in (s 301(b)), a person must obtain a permit and comply with its terms in order to discharge any pollutant. The conditions of the permit must assure that any discharge complies with the applicable requirements of numerous sections including the effluent limitations of section 301(b).

NRDC v. Train, 166 U.S.App.D.C. at 316, 510 F.2d at 696 (emphasis added; footnotes omitted).

We also note that all the Supreme Court decisions referring to s 402 view the permit as the only means by which a point source polluter can avoid the ban on discharges found in s 301. Strictly speaking these expressions may be dicta, for they do not touch directly on the interpretation of s 402. But they are at least a considered reading of what the Act appears to mean.

In *Train v. Colorado Public Interest Research Group, Inc.*, 426 U.S. 1, 96 S.Ct. 1938, 48 L.Ed.2d 434 (1976), Justice Marshall characterized the enforcement scheme of the FWPCA as follows:

(E)ffluent limitations are enforced through a permit program. The discharge of "pollutants" into water is unlawful without a permit issued by the Administrator of the EPA or, if a State has developed a program that complies with the FWPCA, by the State. . . .

Id. at 7, 96 S.Ct. at 1941 (footnote omitted).

In *EPA v. State Water Resources Control Board*, 426 U.S. 200, 96 S.Ct. 2022, 48 L.Ed.2d 578 (1976), the issue was whether federal installations were subject to state NPDES programs. Justice White's majority opinion describes NPDES at 205, 96 S.Ct. at 2025 (footnote omitted):

Under NPDES, it is unlawful for any person to discharge a pollutant without obtaining a permit and complying with its terms. An NPDES permit serves to transform generally applicable effluent limitations and other standards including those based on water quality into the obligations (including a timetable for compliance) of the individual discharger, and the Amendments provide for direct administrative and judicial enforcement of permits.

In *E. I. du Pont de Nemours v. Train*, 430 U.S. 112, 97 S.Ct. 965, 51 L.Ed.2d 204 (1977), the Court held that under FWPCA the EPA can set uniform effluent limitations through industry-wide regulations rather than develop them on an individual basis during the permit issuance process. But the Court, per Justice Stevens, clearly indicated *1377 **155 that those limitations were translated into obligations of the discharger through their inclusion in an NPDES permit. *Id.* at 119-20, 97 S.Ct. 965.

The wording of the statute, legislative history, and precedents are clear: the EPA Administrator does not have authority to exempt categories of point sources from the permit requirements of s 402. Courts may not manufacture for an agency a revisory power inconsistent with the clear intent of the relevant statute. In holding that the FPC does not have authority to exempt the rates of small producers from

regulation under the Natural Gas Act, the Supreme Court observed:

It is not the Court's role . . . to overturn congressional assumptions embedded into the framework of regulation established by the Act. This is a proper task for the Legislature where the public interest may be considered from the multifaceted points of view of the representational process.

FPC v. Texaco, Inc., 417 U.S. 380, 400, 94 S.Ct. 2315, 2327, 41 L.Ed.2d 141 (1974).

II. ADMINISTRATIVE INFEASIBILITY

The appellants have stressed in briefs and at oral argument the extraordinary burden on the EPA that will be imposed by the above interpretation of the scope of the NPDES program. The spectre of millions of applications for permits is evoked both as part of appellants' legislative history argument that Congress could not have intended to impose such burdens on the EPA and as an invitation to this court to uphold the regulations as deviations from the literal terms of the FWPCA necessary to permit the agency to realize the general objectives of that act. During oral argument we asked for supplemental briefs so that the appellants could expand on their infeasibility arguments. We consider EPA's infeasibility contentions in turn.

A. Uniform National Effluent Limitations

EPA argues that the regulatory scheme intended under Titles III and IV of the FWPCA requires, first, that the Administrator establish national effluent limitations¹⁸ and, second, that these limitations be incorporated in the individual permits of dischargers. EPA argues that the establishment of such limitations is simply not possible with the type of point sources involved in the 1973 regulations, which essentially involve the discharge of runoff i. e., wastewaters generated by rainfall that drain over terrain into navigable waters, picking up pollutants along the way.

There is an initial question, to what extent point sources are involved in agricultural, silvicultural, and storm sewer runoff. The definition of point source in s 502(14), including the concept of a "discrete conveyance", suggests that there is room here for some exclusion by interpretation. We discuss this issue subsequently. Meanwhile, we assume that even taking into account what are clearly point sources, there is

a problem of infeasibility which the EPA properly opens for discussion.

EPA contends that certain characteristics of runoff pollution make it difficult to promulgate effluent limitations for most of the point sources exempted by the 1973 regulations:

The major characteristic of the pollution problem which is generated by runoff . . . is that the owner of the discharge point . . . has no control over the quantity of the flow or the nature and amounts of the pollutants picked up by the runoff. The amount of flow obviously is unpredictable because it results from the duration and intensity of the rainfall event, the topography, the type of ground cover and the saturation point of the land due to any previous *1378 **156 rainfall. Similar factors affect the types of pollutants which will be picked up by that runoff, including the type of farming practices employed, the rate and type of pesticide and fertilizer application, and the conservation practices employed . . .

An effluent limitation must be a precise number in order for it to be an effective regulatory tool; both the discharger and the regulatory agency need to have an identifiable standard upon which to determine whether the facility is in compliance. That was the principal of the passage of the 1972 Amendments.

Federal Appellants' Memorandum on "Impossibility" at 7-8 (footnote omitted). Implicit in EPA's contentions is the premise that there must be a uniform effluent limitation prior to issuing a permit. That is not our understanding of the law.

In *NRDC v. Train*, we described the interrelationship of the effluent limitations and the NPDES permit program, 166 U.S.App.D.C. at 327, 510 F.2d at 707 (footnotes omitted):

The Act relies on effluent limitations on individual point sources as the "basis of pollution prevention and elimination." . . . Section 301(b) contains a broad description of phase one and phase two effluent limitations, to be achieved by July 1, 1977 and July 1, 1983, respectively. The limitations established under section 301(b) are to be imposed upon individual point sources through permits issued under the National Pollutant Discharge Elimination System (NPDES) established by section 402. Those permits are to contain schedules which will assure phased compliance with the effluent limitations no later than the final dates set forth in section 301(b). Section 304(b) calls for the publication of regulations containing guidelines for effluent limitations for classes and categories of point sources. These guidelines are intended to assist in the establishment of

section 301(b) limitations that will provide uniformity in the permit conditions imposed on similar sources within the same category by diverse state and federal permit authorities.

As noted in *NRDC v. Train*, the primary purpose of the effluent limitations and guidelines was to provide uniformity among the federal and state jurisdictions enforcing the NPDES program and prevent the "Tragedy of the Commons"¹⁹ that might result if jurisdictions can compete for industry and development by providing more liberal limitations than their neighboring states. 166 U.S.App.D.C. at 329, 510 F.2d at 709. The effluent limitations were intended to create floors that had to be respected by state permit programs.

But in *NRDC v. Train* it was also recognized that permits could be issued before national effluent limitations were promulgated and that permits issued subsequent to promulgation of uniform effluent limitations could be modified to take account of special characteristics of subcategories of point sources.

Prior to the promulgation of effluent limitations under section 301, the director of a state program is instructed merely to impose such terms and conditions in each permit as he determines are necessary to carry out the provisions of the Act. Once *1379 **157 an effluent limitation is established, however, the state director and the regional EPA Administrator are required to apply the specified, uniform effluent limitations, modified only as necessary to take account of fundamentally different factors pertaining to particular point sources within a given class or category. Any variation in the uniform limitations adopted for specific dischargers must be approved by the Administrator.

166 U.S.App.D.C. at 330, 510 F.2d at 710 (footnotes omitted).

Another passage in *NRDC v. Train* touches on the infeasibility problem. We noted that "(t)he statutory framework is not so tightly drawn as to require guidelines for each and every class and category of point source regardless of the need for uniform guidelines or to mandate that all guidelines be published prior to December 31 (1974) regardless of their quality or the burden that task would place upon the agency." *Id.* at 320-21, 510 F.2d at 710-11. In that case this court fully appreciated that technological and

administrative constraints might prevent the Administrator from developing guidelines and corresponding uniform numeric effluent limitations for certain point sources anytime in the near future. The Administrator was deemed to have the burden of demonstrating that the failure to develop the guidelines on schedule was due to administrative or technological infeasibility. 166 U.S.App.D.C. at 333, 510 F.2d at 713. Yet the underlying teaching was that technological or administrative infeasibility was a reason for adjusting court mandates to the minimum extent necessary to realize the general objectives of the Act.²⁰ It is a number of steps again to suggest that these problems afford the Administrator the authority to exempt categories of point sources from the NPDES program entirely.

With time, experience, and technological development, more point sources in the categories that EPA has now classed as exempt may be amenable to national effluent limitations achieved through end-of-pipe technology or other means of pollution control. EPA has noted its own success with runoff from mining operations:

EPA has found that in the area of runoff from mining operations, there is sufficient predictability because of a longer history of regulation and the relatively confined nature of the operations that numerical limitations can be established. Thus, consistent with EPA's position stated earlier that it will expand the permit program where its capability of establishing effluent limitations allows, appropriate limitations have been created and the permit program expanded.

Federal Appellants' Memorandum on "Impossibility" at 8.

3 In sum, we conclude that the existence of uniform national effluent limitations is not a necessary precondition for incorporating into the NPDES program pollution from agricultural, silvicultural, and storm water runoff point sources. The technological or administrative infeasibility of such limitations may result in adjustments in the permit programs, as will be seen, but it does not authorize the Administrator to exclude the relevant point source from the NPDES program.

B. Alternative Permit Conditions under s 402(a)

EPA contends that even if it is possible to issue permits without national effluent limitations, *1380 **158 the special characteristics of point sources of runoff pollution

make it infeasible to develop restrictions on a case-by-case basis. EPA's implicit premise is that whether limitations are promulgated on a class or individual source basis, it is still necessary to articulate any limitation in terms of a numerical effluent standard. That is not our understanding.

4 Section 402 provides that a permit may be issued upon condition "that such discharge will meet either all applicable requirements under sections 301, 302, 306, 307, 308 and 403 of this Act, or prior to taking of necessary implementing actions relating to all such requirements, such conditions as the Administrator determines are necessary to carry out the provisions of this Act." 33 U.S.C. s 1342(a) (Supp. V 1975) (emphasis added). This provision gives EPA considerable flexibility in framing the permit to achieve a desired reduction in pollutant discharges. The permit may proscribe industry practices that aggravate the problem of point source pollution.²¹

EPA's counsel caricatures the matter by stating that recognition of any such authority would give EPA the power "to instruct each individual farmer on his farming practices." Federal Appellants Memorandum on "Impossibility" at 12. Any limitation on a polluter forces him to modify his conduct and operations. For example, an air polluter may have a choice of installing scrubbers, burning different fuels or reducing output. Indeed, the authority to prescribe limits consistent with the best practicable technology may be tantamount to prescribing that technology. Of course, when alternative techniques are available, Congress intended to give the discharger as much flexibility as possible in choosing his mode of compliance. See, e. g., H.Rep.No.92-911, 92d Cong., 2d Sess. 107, reprinted in Legislative History at 794. We only indicate here that when numerical effluent limitations are infeasible, EPA may issue permits with conditions designed to reduce the level of effluent discharges to acceptable levels. This may well mean opting for a gross reduction in pollutant discharge rather than the fine-tuning suggested by numerical limitations. But this ambitious statute is not hospitable to the concept that the appropriate response to a difficult pollution problem is not to try at all.

It may be appropriate in certain circumstances for the EPA to require a permittee simply to monitor and report effluent levels; EPA manifestly has this authority.²² Such permit conditions might be desirable where the full extent of the pollution problem is not known.

C. General Permits

Finally, EPA argues that the number of permits involved in the absence of an exemption authority will simply overwhelm the Agency. Affidavits filed with the District Court indicate, for example, that the number of silviculture point sources may be over 300,000 and that there are approximately 100,000 separate storm sewer point sources.²³ We are and must be sensitive to *1381 **159 EPA's concerns of an intolerable permit load. But the District Court and the various parties have suggested devices to mitigate the burden to accommodate within a practical regulatory scheme Congress's clear mandate that all point sources have permits. All that is required is that EPA makes full use of its interpretational authority. The existence of a variety of options belies EPA's infeasibility arguments.

5 Section 402 does not explicitly describe the necessary scope of a NPDES permit. The most significant requirement is that the permit be in compliance with limitation sections of the Act described above. As a result NRDC and the District Court have suggested the use of area or general permits. The Act allows such techniques. Area-wide regulation is one well-established means of coping with administrative exigency. An instance is area pricing for natural gas producers, which the Supreme Court upheld in Permian Basin Area Rate Cases, 390 U.S. 747, 88 S.Ct. 1344, 20 L.Ed.2d 312 (1968).²⁴ A more dramatic example is the administrative search warrant, which may be issued on an area basis despite the normal Fourth Amendment requirement of probable cause for searching specific premises. *Camara v. Municipal Court*, 387 U.S. 523, 87 S.Ct. 1727, 18 L.Ed.2d 930 (1967).

In response to the District Court's order, EPA promulgated regulations that make use of the general permit device. 42 Fed.Reg. 6846-53 (Feb. 4, 1977). The general permit is addressed to a class of point source dischargers, subject to notice and opportunity for public hearing in the geographical area covered by the permit. Although we do not pass on the validity of the February, 1977, regulations, they serve to dilute an objection of wholesale infeasibility.²⁵

Our approach is not fairly subject to the criticism that it elevates form over substance that the end result will look very much like EPA's categorical exemption. It is the function of the courts to require agencies to comply with legislative intent when that intent is clear, and to leave it to the legislature to make adjustments when the result is counterproductive.²⁶ At the same time, where intent on an issue is unclear, *1382 **160 we are instructed to afford the administering agency

the flexibility necessary to achieve the general objectives of the Act. *Weinberger v. Bentex Pharmaceuticals, Inc.*, 412 U.S. 645, 653, 93 S.Ct. 2448, 37 L.Ed.2d 235 (1973); *United States v. Southwestern Cable Co.*, 392 U.S. 157, 177-78, 88 S.Ct. 1994, 20 L.Ed.2d 1001 (1968); *Permian Basin Area Rate Cases*, 390 U.S. 747, 780, 88 S.Ct. 1344, 20 L.Ed.2d 312 (1968). These lines of authority conjoin in our approach. We insist, as the Act insists, that a permit is necessary; the Administrator has no authority to exempt point sources from the NPDES program. But we concede necessary flexibility in the shaping of the permits that is not inconsistent with the clear terms of the Act.

There is also a very practical difference between a general permit and an exemption. An exemption tends to become indefinite: the problem drops out of sight, into a pool of inertia, unlikely to be recalled in the absence of crisis or a strong political protagonist. In contrast, the general or area permit approach forces the Agency to focus on the problems of specific regions and requires that the problems of the region be reconsidered at least every five years, the maximum duration of a permit.²⁷

D. Other Interpretational Powers

6 Many of the intervenor-appellants appear to argue that the District Court should be reversed because the categories exempted by EPA are nonpoint sources and are not, in fact, point sources.²⁸ We agree with the District Court "that the power to define point and nonpoint sources is vested in EPA and should be reviewed by the court only after opportunity for full agency review and examination." 396 F.Supp. at 1396. The only issue precisely confronted by all the parties and properly framed for our consideration is whether the Administrator has authority to exempt point sources from the NPDES program. We also think that we should, for similar reasons, not consider at this time the appropriate definition of "discharge of any pollutant" as used in s 402. The American Iron and Steel Institute as amicus curiae has pressed upon us the argument that the term "discharge" as used in s 402 was intended to encompass only "volitional flows" that add pollutants to navigable waters. Most forms of runoff, it is argued, do not involve volitional flows.

7 We assume that FWPCA, however tight in some respects, leaves some leeway to EPA in the interpretation of that statute, and in that regard affords the Agency some means to consider matters of feasibility. However, for reasons already noted, we do not consider these particular contentions as to interpretation on the merits.

III. CONCLUSION

8 As the Supreme Court recently stated in a FWPCA case, "(t)he question . . . is **161 *1383* not what a court thinks is generally appropriate to the regulatory process, it is what Congress intended . . ." E. I. du Pont de Nemours & Co. v. Train, 430 U.S. 112, 138, 97 S.Ct. 965, 980, 51 L.Ed.2d 204 (1977). We find a plain Congressional intent to require permits in any situation of pollution from point sources. We also discern an intent to give EPA flexibility in the structure of the permits, in the form of general or area permits. We are aware that Congress hoped that more of the NPDES permit program would be administered by the states at this point.²⁹ But it also made provision for continuing EPA administration. Imagination conjoined with determination will likely give EPA a capability for practicable administration. If not, the remedy lies with Congress.

So ordered.

MackINNON, Circuit Judge, concurring:

I concur in the very sound and practical construction set forth in the foregoing opinion. Any person concerned with the

actual application and enforcement of laws would necessarily be concerned by the application of the relevant legislation to all point sources in agriculture and particularly to irrigated agriculture. Concern would also lie in the congressional admission that present technology is inadequate to enable our citizens to meet the standards and deadlines the Act imposes; in passing the law, Congress was relying on the future "invention (of) new and imaginative developments that will allow us to meet the objectives of our bill."¹ In gambling parlance, Congress in enacting the law was "betting on the come." It is relying on our citizens in the near future to develop the complex technology to meet all the law's standards and objectives on time. The difficulty with that approach is that the hopes of Congress in this respect, like that of any gambler, might not be realized. The agency in this case, however, has shown that it takes a realistic view of both the situation and the task of meeting the difficult requirements and objectives of the Act. I sincerely hope that the ability of the agency to issue section 402 permits including general area permits² will permit it to meet the present and future compliance problems posed by the Act in a practical way.

Parallel Citations

10 ERC 2025, 186 U.S.App.D.C. 147, 8 Env'tl. L. Rep. 20,028

Footnotes

* For convenience the court will refer to this case hereafter as NRDC v. Costle (Runoff Point Sources).

1 33 U.S.C. ss 1251-1376 (Supp. V 1975). Although characterized in the official title as "amendments", the 1972 FWPCA actually substitutes its provisions for those of the pre-1972 Federal Water Pollution Control Act as amended, id. ss 1151-1175 (1970).

2 This case deals with s 402 of the FWPCA, 33 U.S.C. s 1342 (Supp. V 1975), which sets out the permitting authority of the EPA Administrator as well as that of the states under EPA-approved state permit programs. The Secretary of the Army also has a permitting authority in certain circumstances. Under s 404 of the FWPCA, 33 U.S.C. s 1344 (Supp. V 1975), he may issue permits for the discharge of dredged or fill material into navigable waters.

3 40 C.F.R. s 125.4 (1975). See 38 Fed.Reg. 18000-04 (1973).

4 33 U.S.C. s 1362(14) (Supp. V 1975).

5 40 C.F.R. s 125.4 (1975):

The following do not require an NPDES permit:

(f) Uncontrolled discharges composed entirely of storm runoff when these discharges are uncontaminated by any industrial or commercial activity, unless the particular storm runoff discharge has been identified by the Regional Administrator, the State water pollution control agency or an interstate agency as a significant contributor of pollution. (It is anticipated that significant contributors of pollution will be identified in connection with the development of plans pursuant to section 303(e) of the Act. This exclusion applies only to separate storm sewers. Discharges from combined sewers and bypass sewers are not excluded.)

(j) Discharges of pollutants from agricultural and silvicultural activities, including irrigation return flow and runoff from orchards, cultivated crops, pastures, rangelands, and forest lands, except that this exclusion shall not apply to the following:

(1) Discharges from animal confinement facilities, if such facility or facilities contain, or at any time during the previous 12 months contained, for a total of 30 days or more, any of the following types of animals at or in excess of the number listed for each type of animal:

(i) 1,000 slaughter and feeder cattle;

(ii) 700 mature dairy cattle (whether milkers or dry cows);

(iii) 2,500 swine weighing over 55 pounds;

- (iv) 10,000 sheep;
- (v) 55,000 turkeys;
- (vi) If the animal confinement facility has continuous overflow watering, 100,000 laying hens and broilers;
- (vii) If the animal confinement facility has liquid manure handling systems, 30,000 laying hens and broilers;
- (viii) 5,000 ducks;
- (2) Discharges from animal confinement facilities, if such facility or facilities contain, or any time during the previous 12 months contained for a total of 30 days or more, a combination of animals such that the sum of the following numbers is 1,000 or greater: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 55 pounds multiplied by 0.4, plus the number of sheep multiplied by 0.1;
- (3) Discharges from aquatic animal production facilities;
- (4) Discharges of irrigation return flow (such as tailwater, tile drainage, surfaced ground water flow or bypass water), operated by public or private organizations or individuals, if: (1) There is a point source of discharge (e. g., a pipe, ditch, or other defined or discrete conveyance, whether natural or artificial) and; (2) the return flow is from land areas of more than 3,000 contiguous acres, or 3,000 non-contiguous acres which use the same drainage system; and
- (5) Discharges from any agricultural or silvicultural activity which have been identified by the Regional Administrator or the Director of the State water pollution control agency or interstate agency as a significant contributor of pollution.

6 Briefs as amicus curiae were filed by the American Iron and Steel Institute, the State of Texas, and the State of Washington, Department of Natural Resources.

7 33 U.S.C. s 1251(a) (Supp. V 1975).

8 33 U.S.C. s 1311(b)(1)(A) (Supp. V 1975).

9 Id. s 1311(b)(2)(A).

10 Id. s 1311(a).

11 Section 302, 33 U.S.C. s 1312 (Supp. V 1975), permits the Administrator to set water quality related effluent limitations or control strategies where technology-based limitations are inadequate. Section 306, 33 U.S.C. s 1316 (Supp. V 1975), instructs the EPA Administrator to promulgate standards of performance for new sources of pollution constructed after those standards are proposed. Section 307, 33 U.S.C. s 1317 (Supp. V 1975), gives the EPA Administrator the authority to issue generally applicable effluent standards with respect to toxic substances and to require pretreatment of some pollutants before their introduction into treatment works. By virtue of s 318, 33 U.S.C. s 1328 (Supp. V 1975), the Administrator may "permit the discharge of a specific pollutant or pollutants under controlled conditions associated with an approved aquaculture project under Federal or State supervision." Section 404, 33 U.S.C. s 1344 (Supp. V 1975), gives the Secretary of the Army authority to issue permits for the discharge of dredged or fill material into the navigable waters at specified disposal sites.

12 "The Administrator of the Environmental Protection Agency is authorized to regulate discharge of pollutants through the use of an expanded permit program." 117 Cong.Rec. 38800 (1971) (Senator Muskie) (emphasis added), reprinted in 2 Environmental Policy Div., Congressional Reference Serv., A Legislative History of the Water Pollution Control Act Amendments of 1972, at 1259 (Senate Public Works Comm. Print 1973) (hereinafter cited as Legislative History).

13 H.Rep.No.92-911, 92d Cong., 2d Sess. 100 (1972), reprinted in Legislative History at 787.

14 S.Rep.No.92-414, 92d Cong., 1st Sess. 42 (1971), reprinted in Legislative History at 1460; U.S.Code Cong. & Admin.News 1972, pp. 3668, 3709.

15 117 Cong.Rec. 38805 (1971), reprinted in Legislative History at 1272. See also the comments of Senator Montoya on the original Senate bill.

Your committee has placed before you a tough bill. This body and this Nation would not have it be otherwise. Our legislation contains an important principle of psychology: Men seldom draw the best from themselves unless pressed by circumstances and deadlines. This bill contains deadlines and it imposes rather tough standards on industry, municipalities, and all other sources of pollution. Only under such conditions are we likely to press the technological threshold of invention into new and imaginative developments that will allow us to meet the objectives stated in our bill.

117 Cong.Rec. 38808 (1971), reprinted in Legislative History at 1278.

16 118 Cong.Rec. 10215 (1972) (Rep. Clausen), reprinted in Legislative History at 378. See, e. g., H.R.Rep.No.92-911 92d Cong., 2d Sess. 100 (1972), reprinted in Legislative History at 787; S.Rep.No.92-414; 92d Cong., 1st Sess. 42-43 (1971), reprinted in Legislative History at 1460-61; 118 Cong.Rec. 10661 (1972) (Rep. Podell), reprinted in Legislative History at 574.

17 The House rejected an amendment designed to avoid the problems of including irrigation return flows in the permit program. Congressman Teno Roncalio of Wyoming offered an amendment on the floor of the House that would have explicitly exempted irrigated agriculture from the NPDES permit program.

Mr. RONCALIO. . . .

I offer my amendment so that a serious omission to H.R. 11896 can be corrected before we end up with a law that would be virtually impossible to enforce. My amendment would specifically exempt irrigated agriculture from sections 301(a), 302 and 304 of the Federal Water Pollution Control Act.

I think my colleagues will agree that the type of salinity problems created by irrigation runoff are simply not as alarming as the more common pollutants discharged by industrial and municipal facilities. Substantial salinity concentrations have little effect on recreational use of water or its suitability for the propagation of fish.

My amendment is necessary, Mr. Chairman, because at the present time we could not enforce pollution control on irrigation systems. It is virtually impossible to trace pollutants to specific irrigation lands, making these pollutants a nonpoint source in most cases. Second, we do not have the technology to deal with irrigation runoff (as contrasted to industrial pollution) and if we begin making laws to control something that cannot be handled with our given technological knowledge, we will be doing many thousand farmers and ranchers a great disservice. In fact, we will be doing the Federal Government a great disservice if we actually pass a Federal water pollution control bill that cannot be fully enforced.

118 Cong.Rec. 10764-65 (1972), reprinted in Legislative History at 651. The amendment was rejected.

18 See FWPCA s 502(11), 33 U.S.C. s 1362(11) (Supp. V 1975):

The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

19 As one commentator has recently written:

The Tragedy of the Commons arises in noncentralized decisionmaking under conditions in which the rational but independent pursuit by each decisionmaker of its own self-interest leads to results that leave all decisionmakers worse off than they would have been had they been able to agree collectively on a different set of policies.

Stewart, Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy, 86 Yale L.J. 1196, 1211 (1977). The classic account of the Tragedy of the Commons can be found in Hardin, The Tragedy of the Commons, 162 Science 1243 (1968). Hardin makes the point in the context of sheep-grazing. Put simply, even over-simply, Hardin shows that if no one is authorized to set limits to preserve open pasture land as a whole, allowing sheep to graze on that land may lead to serious overgrazing, as each herdsman thinks only of his own advantage. The solution lies in some mandate, from above or by agreement, with sanctions to compel conformance.

20 In NRDC v. Train, this court stated:

A federal equity court may exercise its discretion to give or withhold its mandate in furtherance of the public interest, including specifically the interest in effectuating the congressional objective incorporated in regulatory legislation. We think the court may forebear the issuance of an order in those cases where it is convinced by the official involved that he has in good faith employed the utmost diligence in discharging his statutory responsibilities. The sound discretion of an equity court does not embrace enforcement through contempt of a party's duty to comply with an order that calls him "to do an impossibility."

166 U.S.App.D.C. at 333, 510 F.2d at 713 (footnotes omitted). For reasons stated in this opinion, we conclude that to require the EPA Administrator to include silvicultural, agricultural, and storm sewer point sources in the NPDES program is not to require him "to do an impossibility."

21 That Congress did not regard numeric effluent limitations as the only permissible limitation on a discharger is supported by s 302(a) of the Act, 33 U.S.C. s 1312(a) (Supp. V 1975):

Whenever, in the judgment of the Administrator, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under (s 301(b) of the Act), would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

The emphasis has been added.

22 FWPCA s 402(a)(3), (b)(2)(B), 33 U.S.C. s 1342(a)(3), (b)(2)(B) (Supp. V 1975). EPA concedes that it has this authority. Federal Appellants' Memorandum on "Impossibility" at 14.

23 Affidavit of William H. McCredie, Director, Industrial Forestry, of the NFPA; Affidavit of Walter G. Gilbert, Chief of the Municipal Operations Branch, Municipal Waste Water Systems Div., EPA Office of Air and Water Programs.

24 In Permian Basin the Supreme Court observed:

The Commission has asserted, and the history of producer regulation has confirmed, that the ultimate achievement of the Commission's regulatory purposes may easily depend upon the contrivance of more expeditious administrative methods. The Commission believes that the elements of such methods may be found in area proceedings. "(C)onsiderations of feasibility and

practicality are certainly germane" to the issues before us. . . . We cannot, in these circumstances, conclude that Congress has given authority inadequate to achieve with reasonable effectiveness the purposes for which it has acted.

390 U.S. at 777, 88 S.Ct. at 1365.

25 It is also of some, albeit limited, significance that the House Committee on Government Operations found EPA's administrative problems with applying the permit program to animal feedlots "grossly exaggerated." It was of the opinion that the Administrator did not have authority to exempt point sources from the NPDES program. H.Rep.No.93-1012, 93d Cong., 2d Sess. 15-30 (1974).

26 The Supreme Court recently reiterated this instruction in *Union Electric Co. v. EPA*, 427 U.S. 246, 96 S.Ct. 2518, 49 L.Ed.2d 474 (1976). There the Court held that the EPA Administrator could not consider claims of technological or economic infeasibility when approving state implementation plans under the Clean Air Act Amendments of 1970, 42 U.S.C. ss 1857a-1857l (1970). Such claims were held only to be cognizable by the states in the plan design stage or by the Administrator when drawing up compliance orders. Justice Marshall, writing for the Court, emphasized that federal courts are not to ignore clear expressions of Congressional intent in order to accommodate claims of technological or economic infeasibility.

Allowing such claims to be raised by appealing the Administrator's approval of an implementation plan . . . would frustrate congressional intent. It would permit a proposed plan to be struck down as infeasible before it is given a chance to work, even though Congress clearly contemplated that some plans would be infeasible when proposed. And it would permit the Administrator or a federal court to reject a State's legislative choices in regulating air pollution, even though Congress plainly left with the States, so long as the national standards were met, the power to determine which sources would be burdened by regulation and to what extent. Technology forcing is a concept somewhat new to our national experience and it necessarily entails certain risks. But Congress considered those risks in passing the 1970 Amendments and decided that the dangers posed by uncontrolled air pollution made them worth taking. Petitioner's theory would render that considered legislative judgment a nullity, and that is a result we refuse to reach. 427 U.S. at 268-69, 96 S.Ct. at 2531 (footnote omitted). See also *Wilderness Society v. Morton*, 156 U.S.App.D.C. 121, 171, 479 F.2d 842, 892 (1973), cert. denied, 411 U.S. 917, 93 S.Ct. 1550, 36 L.Ed.2d 309 (quoting *United States v. City and County of San Francisco*, 310 U.S. 16, 31-32, 60 S.Ct. 749, 84 L.Ed. 1050 (1940): "We cannot accept the contention that administrative rulings such as those relied on can thwart the plain purpose of a valid law.")

27 33 U.S.C. s 1342(a)(3), (b)(1)(B) (Supp. V 1975).

28 This appears to be the position of the Colorado River Water Conservation District and the NFPA with respect to silvicultural activities, and NMPP, less obviously, with respect to small dairy farms.

We would put in the same category EPA's contention that the exempt categories are best handled under the areawide waste treatment management planning process of s 208 of the FWPCA, 33 U.S.C. s 1288 (Supp. V 1975). By its terms that section is concerned with areawide waste treatment plans that identify and control "agriculturally and silviculturally related non-point sources of pollution." Id. s 1288(b)(2)(F).

29 See, e. g., 118 Cong.Rec. 10235 (1972) (Rep. Ichord) reprinted in Legislative History at 428.

1 Comments of Senator Montoya, 117 Cong.Rec. 38808 (1971), quoted in court's opinion at 12, reprinted in Legislative History at 1278.

2 As an example, an area permit with appropriate conditions and modifications could issue for the agricultural point sources within the Grand River Irrigation District, or the watershed of the Roaring Fork River and tributaries, etc.

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Attachment 22

966 F.2d 1292
United States Court of Appeals,
Ninth Circuit.

NATURAL RESOURCES DEFENSE
COUNCIL, INC., Petitioner,

v.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, Respondent,
Battery Council International,
et al., Respondents-Intervenors.

Nos. 90-70671, 91-70200. Argued and
Submitted Oct. 9, 1991. Decided June 4, 1992.

Environmental group sought review of Environmental Protection Agency's (EPA's) Clean Water Act storm water discharge rule. The Court of Appeals, Ferguson, Senior Circuit Judge, held that: (1) the EPA's failure to include deadlines for permit approval or denial and compliance consistent with Clean Water Act was arbitrary and capricious, although injunctive relief was not warranted; (2) EPA's definition of municipal separate storm sewer serving a population was not arbitrary and capricious; and (3) EPA rule excluding various types of light industry and construction sites of less than five acres from application of rule was arbitrary and capricious.

Petition for review granted in part and denied in part.

O'Scannlain, Circuit Judge, filed an opinion concurring in part and dissenting in part.

Attorneys and Law Firms

*1294 Robert W. Adler, Natural Resources Defense Council, Washington, D.C., for petitioner.
Daniel S. Goodman, U.S. Dept. of Justice, Washington, D.C., for respondent.

*1295 Petition for Review of a Rule Promulgated by the Environmental Protection Agency.

Before PREGERSON, FERGUSON, and O'SCANNLAIN,
Circuit Judges.

Opinion

FERGUSON, Senior Circuit Judge:

The Natural Resources Defense Council ("NRDC") challenges aspects of the Environmental Protection Agency's ("EPA") recent Clean Water Act storm water discharge rule.¹ NRDC argues that the deadlines contained in the rule and the scope of its coverage are unlawful under section 402(l), (p) of the Clean Water Act, 33 U.S.C. § 1342(l), (p). We grant partial relief.

I. BACKGROUND

In 1972 Congress enacted significant amendments to the Clean Water Act ("CWA"),² 33 U.S.C. §§ 1251-1387 (1988), "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). One major focus of the CWA is the control of "point source" pollution. A "point source" is "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel ... from which pollutants are or may be discharged." 33 U.S.C. § 1362(14). The CWA also established the National Pollutant Discharge Elimination System ("NPDES"), requiring permits for any discharge of pollutants from a point source pursuant to section 402 of the CWA, 33 U.S.C. § 1342. The CWA empowers EPA or an authorized state to conduct an NPDES permitting program. 33 U.S.C. § 1342(a)-(b). Under the program, as long as the permit issued contains conditions that implement the requirements of the CWA, the EPA may issue a permit for discharge of any pollutant. 33 U.S.C. § 1342(a)(1).

This case involves runoff from diffuse sources that eventually passes through storm sewer systems and is thus subject to the NPDES permit program. *See* National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Application Deadlines, 56 Fed.Reg. 56,548 (1991). One recent study concluded that pollution from such sources, including runoff from urban areas, construction sites, and agricultural land, is now a leading cause of water quality impairment. 55 Fed.Reg. at 47,991.³

A. Efforts to Regulate Storm Water Discharge.

Following the enactment of the CWA amendments in 1972, EPA promulgated NPDES permit regulations exempting a number of classes of point sources, including uncontaminated storm water discharge, on the basis of "administrative infeasibility," i.e., the extraordinary administrative burden imposed on EPA should it have to issue permits for possibly millions of point sources of runoff. *Natural Resources*

Defense Council v. Costle, 568 F.2d 1369, 1372 & n. 5, 1377 (D.C.Cir.1977). NRDC *1296 challenged the exemptions. Relying on the language of the statute, its legislative history and precedent, the D.C. Circuit held that the EPA Administrator did not have the authority to create categorical exemptions from regulation. *Id.* at 1379. However, the court acknowledged the agency's discretion to shape permits in ways "not inconsistent with the clear terms of the Act." *Id.* at 1382.

Following this litigation, EPA promulgated regulations covering storm water discharges in 1979, 1980 and 1984. 56 Fed.Reg. 56,548. NRDC challenged various aspects of these rules both at the administrative level as well as in the courts.

Recognizing both the environmental threat posed by storm water runoff⁴ and EPA's problems in implementing regulations,⁵ Congress passed the Water Quality Act of 1987⁶ containing amendments to the CWA ("the 1987 amendments"), portions of which set up a new scheme for regulation of storm water runoff. Section 402(p), as amended, established deadlines by which certain storm water dischargers must apply for permits, the EPA or states must act on permits and dischargers must implement their permits. *See* Appendix A. The Act also set up a moratorium on permitting requirements for most storm water discharges, which ends on October 1, 1992. There are five exceptions that are required to obtain permits before that date:

(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, ... determines that the storm water discharge contributes to a violation of a water quality standard or is a significant contributor of pollutants to the waters of the United States.

CWA § 402(p)(2); 33 U.S.C. § 1342(p)(2).

Section 402(p) also outlines an incremental or "phase-in" approach to issuance of storm water discharge permits. The purpose of this approach was to allow EPA and the states

to focus their attention on the most serious problems first. 133 Cong.Rec. 991 (1987). Section 402(p) requires EPA to promulgate rules regulating permit application procedures in a staggered fashion.

Responding to the 1987 amendments requiring the EPA to issue permit application requirements for storm water discharges associated with industrial activities and large municipalities, the EPA issued final rules on November 16, 1990, almost two years after its deadline ("the November 1990 rule"). 55 Fed.Reg. at 47,990. EPA issued amended rules on March 21, 1991 ("the March 1991 rule"). 56 Fed.Reg. at 12,098. It is to portions of these rules that NRDC objects.

B. Jurisdiction.

We have jurisdiction pursuant to CWA § 509(b)(1), 33 U.S.C. § 1369(b)(1). Section 509(b)(1) describes six types of actions by the EPA administrator that are subject to review in the court of appeals. Although the parties do not specify the section upon which they rely, § 509(b)(1)(F), 33 U.S.C. § 1369(b)(1)(F) allows the court to review *1297 the issuance or denial of a permit under CWA § 402, 33 U.S.C. § 1342. The court also has the power to review rules that regulate the underlying permit procedures. *NRDC v. EPA*, 656 F.2d 768, 775 (D.C.Cir.1981); *cf. E.I. DuPont de Nemours & Co. v. Train*, 430 U.S. 112, 136, 97 S.Ct. 965, 979, 51 L.Ed.2d 204 (1977). NRDC filed timely petitions for review of the final rules at issue here pursuant to CWA § 509(b)(1), 33 U.S.C. 1369(b)(1).

C. Standing.

Any "interested person" may seek review of designated actions of the EPA Administrator. 33 U.S.C. § 1369(b)(1). This court has held that the injury-in-fact rule for standing of *Sierra Club v. Morton*, 405 U.S. 727, 733, 92 S.Ct. 1361, 1365, 31 L.Ed.2d 636 (1972) covers the "interested person" language. *Trustees for Alaska v. EPA*, 749 F.2d 549, 554 (9th Cir.1984) (adopting the analysis in *Montgomery Environmental Coalition v. Costle*, 646 F.2d 568, 578 (D.C.Cir.1980)). A petitioner under *Sierra Club* must suffer adverse affects to her economic interests or "[a]esthetic and environmental well-being." *Sierra Club*, 405 U.S. at 734, 92 S.Ct. at 1366. Intervenors are various industry and trade groups subject to regulation under the rules at issue. NRDC claims, inter alia, that EPA has delayed unlawfully promulgation of storm water regulations and that its regulations, as published, inadequately control storm water contaminants. NRDC's allegations and the potential

economic impact of the rules on the intervenors satisfy the broad standing requirement applicable here.

II. DISCUSSION

A. Standard of Review.

5 U.S.C. § 706(2)(A) (1988) authorizes the court to “set aside agency action ... found to be ... arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” Under this standard a court must find a “rational connection between the facts found and the choice made.” *Sierra Pacific Indus.*, 866 F.2d 1099, 1105 (9th Cir.1989) (citing *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 2866, 77 L.Ed.2d 443 (1983)). The court must decide whether the agency considered the relevant factors and whether there has been a clear error of judgment. *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416, 91 S.Ct. 814, 823, 28 L.Ed.2d 136 (1971).

On questions of statutory construction, courts must carry out the unambiguously expressed intent of Congress. If a statute is “silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.” *Chevron U.S.A. Inc. v. Natural Resources Defense Council Inc.*, 467 U.S. 837, 843, 104 S.Ct. 2778, 2782, 81 L.Ed.2d 694 (1984). Congress may leave an explicit gap, thus delegating legislative authority to an agency subject to the arbitrary and capricious standard. *Id.* at 843-44, 104 S.Ct. at 2781-82. If legislative delegation is implicit, courts must defer to an agency's statutory interpretation as long as it is reasonable. *Id.* at 844, 104 S.Ct. at 2782. This is because an agency has technical expertise as well as the authority to

reconcile conflicting policies. *See id.* Nevertheless, questions of congressional intent that can be answered with “traditional tools of statutory construction” are still firmly within the province of the courts. *INS v. Cardoza-Fonseca*, 480 U.S. 421, 447-48, 107 S.Ct. 1207, 1221, 94 L.Ed.2d 434 (1987).

B. EPA's Extension of Statutory Deadlines.

1. Background.

NRDC challenges EPA's extension of certain statutory deadlines in the November 1990 and March 1991 rules. The statutory scheme calls for EPA to consider permit applications from the most serious sources of pollutants first: industrial dischargers and large municipal separate storm sewer systems (“large systems”).⁷ The statute required EPA to establish regulations *1298 for permit application requirements for these two groups by February 4, 1989; to receive applications for permits one year later, February 4, 1990; and to approve or deny the permits by February 4, 1991. Permittees may be given up to three years to comply with their permits. CWA § 402(p)(4)(A), 33 U.S.C. § 1342(p)(4)(A). Medium sized municipal separate storm sewer systems (“medium systems”) (those serving a population of 100,000 or more but less than 250,000) are on a similar schedule, except that the deadlines are two years later. CWA § 402(p)(4)(B), 33 U.S.C. § 1342(p)(4)(B). The temporary statutory exemption for all storm water sources expires on October 1, 1992. CWA § 402(p)(1), 33 U.S.C. § 1342(p)(1). EPA states that discharges from municipal separate storm sewer systems serving a population of under 100,000 are to be regulated after that date.

The EPA rules at issue changed the statutory deadlines as follows:

Deadlines pursuant to CWA § 402(p) ⁸			EPA Deadlines ⁹
Discharge type	Deadline to issue rules	Deadline for application and approval of permits	Application deadlines
Industrial	2/4/89	2/4/90-applications due 2/4/91-approval due	See below
Large municipal systems	2/4/89	2/4/90-applications due 2/4/91-approval	Part 1- 11/18/91 Part 2- 11/16/92
Medium municipal systems	2/4/91	2/4/92-applications due 2/4/93-approval due	Part 1- 5/18/92

Part 2-
5/17/93

EPA Application Deadlines for "Industrial Activity" Dischargers

Individual
due 11/18/91

Group
Part 1-9/30/91; Part 2-10/1/92

As the chart illustrates, EPA made other elaborations on the statutory scheme in addition to extending the deadlines. Medium and large municipal systems and industrial dischargers are now subject to a two-part application process. 55 Fed.Reg. at 48,072. The November 1990 rules allow industrial dischargers to apply for either individual or group permits. *1299 *Id.* at 48,066-67. The March 1991 rules further extended the deadline for part 1 of the group industrial discharger permits to September 30, 1991. ¹⁰ 56 Fed.Reg. at 12,098. A final rule published on April 2, 1992 extended the deadline for the part 2 group application for industrial dischargers from May 18, 1992 to October 1, 1992. 57 Fed.Reg. at 11,394. The EPA rules at issue contain neither deadlines for final EPA or state approval of permits nor deadlines for compliance with the permit terms.

Seeking to compel the EPA to conform to the statutory scheme, NRDC asks this court:

- a) to declare unlawful EPA's failure to issue certain of the storm water permitting regulations by February 4, 1989 and EPA's extension of certain statutory deadlines;
- b) to enjoin EPA from granting future extensions of the deadlines;
- c) to compel EPA to include deadlines for permit approval or denial and permit compliance consistent with the statute; and
- d) to compel EPA to require that medium and small municipal systems meet the same deadlines as large systems.

2. Discussion.

a. Request for Declaratory Relief.

NRDC asks the court to (1) declare unlawful EPA's failure to issue storm water permitting regulations by February 4, 1989; and (2) declare unlawful EPA's extension of deadlines for submission of permit applications by large and medium systems and individual industrial dischargers.

1 A request for declaratory relief in a challenge to an agency action is ripe for review if the action at issue is final and the questions involved are legal ones. *Public Util. Dist. No. 1 v. Bonneville Power Admin.*, 947 F.2d 386, 390 n. 1 (9th Cir.1991) (citations omitted), *cert. denied*, 503 U.S. 1004, 112 S.Ct. 1759, 118 L.Ed.2d 422 (1992). Here, the agency regulations are final. *See* 55 Fed.Reg. at 47,990, 56 Fed.Reg. at 12,096. The question of whether the EPA is bound by the statutory scheme set by Congress is a legal one. The request for declaratory relief is therefore ripe for consideration by this court.

2 The granting of declaratory relief "rests in the sound discretion of the [] court exercised in the public interest." 10A Charles A. Wright, Arthur R. Miller & Mary K. Kane, *Federal Practice & Civil Procedure* § 2759, at 645 (1983). The guiding principles are whether a judgment will clarify and settle the legal relations at issue and whether it will afford relief from the uncertainty and controversy giving rise to the proceedings. *McGraw-Edison Co. v. Preformed Line Products Co.*, 362 F.2d 339, 342 (9th Cir.) (citing Borchard, *Declaratory Judgments* 299 (2d ed. 1941)), *cert. denied*, 385 U.S. 919, 87 S.Ct. 229, 17 L.Ed.2d 143 (1966). A court declaration delineates important rights and responsibilities and can be "a message not only to the parties but also to the public and has significant educational and lasting importance." *Bilbrey by Bilbrey v. Brown*, 738 F.2d 1462, 1471 (9th Cir.1984). Because of the importance of the interests and the principles at stake, we grant declaratory relief.

3 EPA does not have the authority to ignore unambiguous deadlines set by Congress. *Delaney v. EPA*, 898 F.2d 687, 691 (9th Cir.), *cert. denied*, 498 U.S. 998, 111 S.Ct. 556, 112 L.Ed.2d 563 (1990). In arguing against injunctive relief, EPA points to cases recognizing factors indicating that equitable relief may be inappropriate. *See, e.g., In re Barr Laboratories, Inc.*, 930 F.2d 72, 74 (D.C.Cir.) (agency's choice of priorities is an important factor in considering whether to grant equitable relief), *cert. denied*, 502 U.S. 906, 112 S.Ct. 297, 116 L.Ed.2d 241 (1991); *Natural Resources Defense Council v. Train*, 510 F.2d 692, 712 (D.C.Cir.1975) (court may need to give *1300 agency

some leeway due to budgetary commitments or technological problems); *Environmental Defense Fund v. Thomas*, 627 F.Supp. 566, 569-70 (D.D.C.1986) (EPA's good faith is a factor). None of these factors militates against an award of declaratory relief. They do not grant an executive agency the authority to bypass explicit congressional deadlines. The deadlines are not aspirational—Congress set them and expected compliance. See 132 Cong.Rec. 32,381-82 (remarks of Senator Stafford, commenting on EPA delay and the establishment of statutory deadlines as “outside dates.”) This court must uphold adherence to the law, and cannot condone the failure of an executive agency to conform to express statutory requirements. For these reasons, we grant NRDC's request for declaratory relief. EPA's failure to abide by the statutory deadlines is unlawful.

b. Request for Injunction.

NRDC asks the Court to enjoin the EPA from further extensions for permit applications from municipal and industrial dischargers. Injunctions are an extraordinary remedy issued at a court's discretion when there is a compelling need. 11 Charles A. Wright & Arthur R. Miller, *Federal Practice & Procedure* § 2942, at 365, 368-69 (1973). We decline to enjoin the EPA on discretionary grounds.

4 Injunctive relief could involve extraordinary supervision by this court. Injunctive relief may be inappropriate where it requires constant supervision. *Id.* at 376. At issue are deadlines for the three major categories of dischargers, each of which has a two-part application. The permitting process will go on for several years. While recognizing the importance of the interests involved, we nevertheless decline to engage in the active management of such a remedy.

5 In this situation, we must operate on the assumption that an agency will follow the dictates of Congress and the court. As noted above, the EPA does not have the authority to predicate future rules or deadlines in disagreement with this opinion. See *Allegheny General Hosp. v. NLRB*, 608 F.2d 965, 970 (3rd Cir.1979). We presume that the EPA will duly perform its statutory duties. See *Upholstered Furniture Action Council v. California Bureau of Home Furnishing*, 442 F.Supp. 565, 568 (E.D.Cal.1977) (three judge court). Because we decline to take on potentially extensive supervision of the EPA, Congress may need to find other ways to ensure compliance if the agency is recalcitrant.

c. Deadlines for Permit Approval and Compliance.

NRDC requests that the court compel EPA to revise the rules to include deadlines for permit approval or denial and permit compliance consistent with the statute. Section 402(p)(4)(A) calls for the EPA to issue or deny permits for industrial and large municipalities by February 4, 1991, which is one year after the applications are submitted, and states that “[a]ny such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of the issuance of such permit.” CWA § 402(p)(4)(A), 33 U.S.C. § 1342(p)(4)(A). The statute sets out a similar schedule for medium municipalities, except that the deadlines are two years later. CWA § 402(p)(4)(B), 33 U.S.C. § 1342(p)(4)(B).

6 The regulations promulgated by the EPA contain neither final approval deadlines nor compliance deadlines for industrial dischargers or medium and large municipalities. 55 Fed.Reg. at 48,072. By failing to regulate final approval and compliance, EPA has omitted a key component of the statutory scheme. To ensure adherence to the statutory time frame, especially in the face of deadlines already missed, the regulated community must be informed of these deadlines. EPA's failure to include these important deadlines is an arbitrary and capricious exercise of its responsibility to issue regulations pursuant to the statute.

We see no need for additional delay while supplemental regulations are issued. Given the extraordinary delays already encountered, EPA must avoid further delay. *1301 The regulations should inform the regulated community of the statute's outside dates for compliance.¹¹ See CWA § 402(p)(4)(A)-(B), 33 U.S.C. § 1342(p)(4)(A)-(B).

d. Timeline for Small and Medium Systems.

7 The parties disagree on when small systems (those serving a population of less than 100,000) should be regulated. As noted above, the temporary statutory exemption for all storm water sources expires on October 1, 1992. The statute requires EPA to establish a comprehensive program to regulate point sources subject to the moratorium, such as small municipalities, by that date. CWA § 401(p)(1), (6), 33 U.S.C. § 1342(p)(1), (6).

Pointing to a perceived statutory gap, NRDC argues that small systems should be subject to the same permitting schedule applicable to medium systems, to assure that they are regulated when the permitting moratorium ends on October 1, 1992. However, the plain language of the statute prohibits this. Section 402(p)(1) forbids requiring a permit for

entities not listed as exceptions (such as small municipalities) before October 1, 1992. Yet the deadline for part 1 of the application for medium systems is currently May 18, 1992. 55 Fed.Reg. at 48,072.

Even if NRDC is correct that EPA is not proceeding so that regulations will be in place on October 1, 1992, we cannot ignore the plain language of the statute by adopting NRDC's solution. The CWA does not require regulation of such systems prior to expiration of the moratorium. We therefore reject NRDC's proposal that small systems be put on the same schedule as medium ones.

8 NRDC asks the court to put the medium systems on the same schedule as the large systems, in order to achieve closer compliance with the timeline set out in § 402(p)(4)(B). However, EPA's current schedule for medium systems, although delayed, is still within the statutory scheme in its relation to the schedule for large systems. That is, Congress placed the medium systems on a staggered permitting schedule to start two years after the large systems and industrial users. The EPA schedule now has medium municipal system applications due six months after the applications for the large municipal systems. 55 Fed.Reg. at 48,072. For this reason, the current deadline for medium municipalities does not appear to be unreasonable despite the unlawful delay.

C. Exclusion of Certain Sources from Regulation.

1. Definition of "Municipal Separate Storm Sewer System."

Section 402(p) refers to "municipal separate storm sewer system[s] serving a population" of a specified size. CWA § 402(p)(2)(C), (D), 33 U.S.C. § 1342(p)(2)(C), (D). NRDC contends that EPA's definition of this term violates the plain language of the statute, fails to take into account the statutory definition of the word "municipality" and is arbitrary and capricious because the agency considered improper factors when it defined the term. All of this, according to NRDC, results in an impermissible narrowing of the municipalities covered by the first two rounds of permitting.

The 1987 amendments to the CWA did not contain definitions of "municipal" or "separate storm sewer system," but the CWA amendments enacted in 1972 defined "municipality" as follows:

[e]xcept as otherwise specifically provided, when used in this chapter: (4) The term

"municipality" means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved *1302 management agency under section 1288 of this title [33 U.S.C. § 1288].

33 U.S.C. § 1362.

In the November 1990 regulations, the EPA defined "municipal separate storm sewer" as: "a conveyance or system of conveyances ... [o]wned or operated by a State, city, town, borough, county, parish, district, association or other public body...." 55 Fed.Reg. at 48,065 (to be codified at 40 C.F.R. § 122.26(b)(8)). This definition echoes the language of 33 U.S.C. § 1362(4). However, when defining large and medium municipal separate storm sewer systems serving a population of a specified size, EPA brought in other factors. 55 Fed.Reg. at 48,064 (to be codified at 40 C.F.R. § 122.26(b)(4), (7)). EPA defines medium and large separate storm sewer systems using two main categories:

- 1) separate storm sewer systems located in an incorporated place with the requisite population, and
- 2) separate storm sewer systems located in unincorporated, urbanized portions of counties containing the requisite population (as listed in Appendices H and I to the rule), excluding those municipal separate sewers located in incorporated places, townships or towns within such counties.¹² 55 Fed.Reg. at 48,064. NRDC opposes this definition for municipal separate storm sewer systems for the reasons explained below.

First, NRDC argues that according to the definitional section cited above and principles of statutory construction, general definitions apply wherever the defined term appears elsewhere in the law. See 33 U.S.C. § 1362 ("[e]xcept as otherwise specifically provided" the definitions apply throughout the act); *Sierra Club v. Clark*, 755 F.2d 608, 613 (8th Cir.1985). NRDC argues that the scope of the statutory definition of "municipality" in 33 U.S.C. § 1362(4) and the scope of the phrase "municipal separate storm sewer system serving a population" are the same. NRDC thus proposes that the correct definition is a system of conveyances owned or operated by the full range of entities described at 33 U.S.C. § 1362(4), (cities, towns, etc.) with populations within the ranges designated at § 402(p)(2), i.e., 250,000 or more for

large systems and between 100,000 and 250,000 for medium systems.

However, we do not believe that the entire phrase used in the act, "municipal separate storm sewer system serving a population of [a specified size]" can be equated with the term "municipality" in the manner that NRDC proposes. The act contains no definition of either "system" or "serving a population." The word "system" is particularly ambiguous in the context of storm sewers.¹³ We therefore agree with EPA that there is no single, plain meaning for the disputed words.

Because the term is ambiguous, we must look first to whether Congress addressed the issue in another way. See *Abourezk v. Reagan*, 785 F.2d 1043, 1053 (D.C.Cir.1986) (" [i]f the court finds that Congress had a specific intent ..., the court stops there and enforces that intent regardless of the agency's interpretation") (citing *Chevron U.S.A. Inc. v. Natural Resources Defense Council Inc.*, 467 U.S. 837, 842-43 & n. 9, 104 S.Ct. 2778, 2781 & n. 9, 81 L.Ed.2d 694 (1984)), *aff'd by an equally divided court*, 484 U.S. 1, 108 S.Ct. 252, 98 L.Ed.2d 1 (1987). The legislative history is not illuminating. Although it explains that a purpose of the permitting scheme was to attack the most serious sources of discharge first,¹⁴ this general goal is not helpful in discerning the specific meaning of "municipal separate storm sewer system serving a population." Without clear guidance from Congress, we turn to the agency's justifications *1303 for its choices in the face of NRDC's objections.

NRDC claims that EPA's definition is arbitrary and capricious because EPA considered improper factors, including its own work load, the incorporation status of municipalities, and urban density. "[A]n agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 2866, 77 L.Ed.2d 443 (1983).

EPA's final definition took into account many issues and concerns of the regulated community. See 55 Fed.Reg. at 48,039. EPA considered eight different options for defining large and medium municipal separate storm sewer systems. 55 Fed.Reg. at 48,038-43. EPA considered focusing on ownership or operation of a system by an incorporated place, but found that this approach did not take into

account systems operated by flood control districts, state transportation systems, or concerns relating to watershed management. It instead fashioned a multi-faceted approach. This choice of approach is not unreasonable.

NRDC challenges EPA's consideration of incorporation as a factor. It claims that limiting regulation to incorporated places of the appropriate size excludes portions of 378 counties that contain over 100,000 people. NRDC essentially contends that because counties are a type of municipality, storm water conveyances in all counties with populations over 100,000 should come within the definition of either medium or large municipal separate storm sewer systems. We have already rejected NRDC's claim that the definition of regulated "systems" must include conveyances in all "municipalities."

EPA's use of incorporation as a factor is not arbitrary and capricious or inconsistent with the statute. The agency proceeded on the reasonable assumption that cities possess the police powers needed effectively to control land use within their borders. See 55 Fed.Reg. at 48,039, 48,043. The first major category within the definition of regulated "systems," municipal separate storm sewers located within incorporated places having the requisite population, is reasonable.

NRDC questions EPA's second major category, which covers storm sewers located in unincorporated urbanized areas of counties with the designated population, but excludes conveyances located in incorporated places with populations under 100,000 within those counties. The exclusion, however, has a legitimate statutory basis. The statute prohibits EPA from requiring permits for systems serving under 100,000 persons prior to October 1, 1992. CWA § 402(p)(1), 33 U.S.C. § 1342(p)(1). EPA reasonably concluded that conveyances within small incorporated places should be considered parts of small systems limited to those incorporated places, rather than parts of larger systems serving whole counties. EPA's definition attempts to capture population centers of over 100,000 (by including urbanized, unincorporated areas) without violating the congressional stricture against regulation of areas with populations under 100,000 (thus excluding incorporated areas of less than 100,000 within a county).

In arriving at its definition of "municipal separate storm sewer systems serving" a designated population, EPA investigated numerous options and considered comments from a range of viewpoints. We find "a rational connection between the facts

found and the choices made.” *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43, 103 S.Ct. at 2866.

NRDC objects to EPA's use of 1980 census data and EPA's definition of urban density. While it appears that NRDC has solid arguments as to why it would be preferable to use 1990 census figures and adopt its method of determining urban density, our role is not to determine whether EPA has chosen the best among all possible *1304 methods. We can only determine if its choices are rational. EPA chose the 1980 census data because it was the most widely available decennial census data at the time of rule formulation and promulgation. Neither this choice nor its use of the Census Bureau's definition of urbanized area is arbitrary and capricious.

EPA took agency work load into account in arriving at its definition. 55 Fed.Reg. at 48,039. NRDC objects on the basis that Congress considered the issue of work load when it developed the “phase-in” approach and allowed permit applications on a system- or jurisdiction-wide basis. However, this broad congressional scheme does not prohibit further consideration of EPA's work load as one among many factors in its attempt to fashion a workable program.

9 In summary, NRDC's argument that the phrase “municipal separate storm sewer system serving a population” has the plain meaning NRDC proposes is not persuasive. Although EPA's definition in the face of the statute's ambiguity is complex, if not convoluted, it is not arbitrary and capricious, and we therefore reject NRDC's request that the definition be declared invalid.

2. EPA Exemption for Light Industry.

10 NRDC challenges the portion of the EPA rule excluding various types of “light industry” from the definition of “discharge associated with industrial activity.”

Under CWA § 402(p)(2)(B), a “discharge associated with industrial activity” is an exception to the permit moratorium. In the November rule, EPA modified the statutory scheme by drawing distinctions among light and heavy industry and considering actual exposure to industrial materials. Although the statute does not define “associated with industrial activity,” the EPA definition excludes industries it considers more comparable to retail, commercial or service industries. The excluded categories are manufacturers of pharmaceuticals, paints, varnishes, lacquers, enamels, machinery, computers, electrical equipment, transportation equipment, glass products, fabrics, furniture, paper board,

food processors, printers, jewelry, toys and tobacco products. 55 Fed.Reg. at 48,008. These types of facilities need apply for permits only if certain work areas or actual materials are exposed to storm water. *Id.* EPA justifies these exemptions on the assumption that most of the activity at these types of manufacturers takes place indoors, and that emissions from stacks, use of unhooded manufacturing equipment, outside material storage or disposal, and generation of large amounts of dust and particles will all be minimal. 55 Fed.Reg. at 48,008.

Thus, EPA considers actual exposure to certain materials or stormwater for the light industry categories, but does not consider actual exposure for the other industrial categories. After careful review of the statutory language and the record, we conclude that this distinction is impermissible.

We note that the language “discharges associated with industrial activity” is very broad. The operative word is “associated.” It is not necessary that storm water be contaminated or come into direct contact with pollutants; only association with any type of industrial activity is necessary.

There is a brief discussion of the issue in the legislative history: “[a] discharge is associated with industrial activity if it is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. Discharges which do not meet this definition include those discharges associated with parking lots and administrative and employee buildings.” 133 Cong.Rec. 985 (1987); *see also* 132 Cong.Rec. 31,968 (1986) (same). EPA argues that the words “directly related” indicate Congress's intent to require permits for only those materials that come in contact with industrial materials. *See* 55 Fed.Reg. at 48,007. However, the examples given—parking lots and administrative buildings—indicate that the intent was to exclude only those facilities or parts of a facility that are completely non-industrial.

EPA's definition follows the language quoted above: “Storm water discharge associated with industrial activity means the *1305 discharge from any conveyance which is used for collecting and conveying stormwater and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant.” 40 C.F.R. § 122.26(b)(14). EPA applies this definition differently depending on type of industry. EPA bases its regulation of industrial activity on Standard Industrial Classification (“SIC”) categories. For most of the industrial SIC categories (identified at 40 C.F.R. § 122.26(b)(i-x)), the EPA definition includes all stormwater discharges from plant yards, access roads and rail lines,

material handling sites, storage and disposal sites, shipping and receiving areas, and manufacturing buildings. 40 C.F.R. § 122.26(b)(14). However, for the “light industry” categories identified in 40 C.F.R. § 122.26(b)(14)(xi), stormwater must be actually exposed to raw materials, by-products, waste, etc., before permitting is required.

EPA justifies this difference on the ground that for “light industry,” industrial activity will take place indoors, and that generation of large amounts of particles and emissions will be minimal. There is nothing in the record submitted to the Court however, which supports this assumption. *See, e.g.*, 55 Fed.Reg. at 48,008. Without supportable facts, we are unable to rely on our usual assumption that the EPA has rationally exercised the duties delegated to it by Congress. To exempt these industries from the normal permitting process based on an unsubstantiated assumption about the this group of facilities is arbitrary and capricious.

In addition, by designating these light industries as a group that need only apply for permits if actual exposure occurs, EPA impermissibly alters the statutory scheme. The statute did set up a similar approach for oil, gas, and mining industries. However, no other classes of industrial activities are subject to the more lenient “actual exposure” test. To require actual exposure entirely shifts the burden in the permitting scheme. Most industrial facilities will have to apply for permits and show the EPA or state that they are in compliance. Light industries will be relieved from applying for permits unless actual exposure occurs. The permitting scheme then will work only if these facilities self-report, or the EPA searches out the sources and shows that exposure is occurring. We do not know the likelihood of either self-reporting or EPA inspection and monitoring of light industries, and the regulations appear to contemplate neither for these industries. For this reason, the proposed regulation is also arbitrary and capricious.

In conclusion, we hold that the rule for light industries is arbitrary and capricious, vacate the rule, and remand for further proceedings.

3. Exclusion of Construction Sites of Less than Five Acres.

11 NRDC challenges the exemption for construction sites of less than five acres. EPA concedes that the construction industry should be subject to storm water permitting because at a high level of intensity, construction is equivalent to other regulated industrial activities. 55 Fed.Reg. at 48,033. Construction sites can pollute with soil sediments,

phosphorus, nitrogen, nutrients from fertilizers, pesticides, petroleum products, construction chemicals and solid wastes. *Id.* EPA states that such substances can be toxic to aquatic organisms, and affect water used for drinking and recreation. *Id.*

Following its characterization of construction sites as suitable for regulation, EPA defined its task as determining “an acreage limit [] appropriate for identifying sites that amount are (sic) to industrial activity.” 55 Fed.Reg. at 48,036. EPA originally proposed regulations that exempted operations that disturb less than one acre of land and are not part of a common plan of development or sale. 55 Fed.Reg. at 48,035-36. In response to comments by the regulated community about the administrative burden presented by the regulation, EPA increased the exemption to five acres. 55 Fed.Reg. at 48,036. EPA also noted that larger sites will involve heavier equipment for removing vegetation and bedrock than smaller sites. *Id.* at 48,036.

*1306 We find that EPA's rationale for increasing the limit from one to five acres inadequate and therefore arbitrary and capricious. EPA cites no information to support its perception that construction activities on less than five acres are non-industrial in nature.

12 EPA also claims agency power, inherent in statutory schemes, to make categorical exemptions when the result is *de minimis*. *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C.Cir.1979). However, if construction activity is industrial in nature, and EPA concedes that it is, EPA is not free to create exemptions from permitting requirements for such activity. *See Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369, 1377 (D.C.Cir.1977) (once Congress has delineated an area that requires permits, EPA is not free to create exemptions).

Further, we find the *de minimis* principle inapplicable here. The *de minimis* exemption is only available where a regulation would “yield a gain of trivial or no value.” *Alabama Power Co., supra*, at 361. Because of the lack of data, we cannot know whether exempting sites of less than five acres will indeed have only a *de minimis* effect.

The *de minimis* concept is based on the principle that the law does not concern itself with trifling matters. *Id.* at 360. We question its applicability in a situation such as this where the gains from application of the statute are being weighed against administrative burdens to the regulated community. *See id.* at 360-361 (implied authority to make cost-benefit

decisions must derive from statute, and not general *de minimis* doctrine).

Further, EPA's claim that the five-acre exemption is *de minimis* is contradicted by the admission that even small construction sites can have a significant impact on local water quality. The EPA acknowledges that "[o]ver a short period of time, construction sites can contribute more sediment to streams than was previously deposited over several decades." 55 Fed.Reg. at 48,033. Without data supporting the expanded exemption, we owe no deference to EPA's line-drawing. We thus hold that EPA's choice of a five-acre limit is arbitrary and capricious, invalidate that portion of the rule exempting construction sites of five acres or less from permitting requirements, and remand for further proceedings.

4. Exemption for oil and gas activities.

The 1987 amendments created an exemption from the permit requirement for uncontaminated runoff from mining, oil and gas facilities. See Appendix, CWA § 402(l)(2), 33 U.S.C. §§ 1342(l)(2). Section 402(l)(2) states that a permit is not required for discharges of storm water runoff from mining, oil or gas operations composed entirely of flows from conveyance systems used for collecting precipitation runoff and "which are not contaminated by contact with, or do not come into contact with any overburden, raw material, intermediate products, finished product, byproduct, or waste products". NRDC claims that the November 1990 rule sets up an impermissible standard for determining contamination at oil and gas facilities. The relevant portion of the rule states that at these facilities, an operator is not required to submit a permit application unless the facility has had a discharge of a reportable quantity¹⁵ since November 1987, or contributes to a violation of a water quality standard. 55 Fed.Reg. 48,067 (to be codified at 40 C.F.R. § 122.26(c)(1)(iii)). A facility which has had a release of oil or a hazardous substance in excess of RQs since *1307 1987 must submit a permit application. *Id.*; 55 Fed.Reg. at 48,029-30.

NRDC claims that oil and gas operations should be subject to the stricter standards which apply to mining operations.¹⁶ It also objects to EPA's use of RQs as the only test for contamination of runoff from oil and gas storm water dischargers, claiming it is inconsistent with the legislative history. We conclude that the legislative history does not support NRDC's position.

The conference report states:

[P]ermits are not required where stormwater runoff is diverted around mining operations or oil and gas operations and does not come in contact with overburden, raw material, product, or process wastes. In addition, where stormwater runoff is not contaminated by contact with such materials, *as determined by the administrator*, permits are also not required. With respect to oil or grease or hazardous substances, the determination of whether stormwater is "contaminated by contact with" such materials, *as established by the Administrator*, shall take into consideration whether these materials are present in such stormwater runoff in excess of reportable quantities under section 311 of the Clean Water Act ..., or in the case of mining operations, above natural background levels.

H.R.Rep. No. 1004, 99th Cong., 2d Sess., at 151 (emphasis added).

13 Thus, the EPA Administrator has discretion to determine whether or not storm water runoff at an oil, gas or mining operation is contaminated with two types of materials: (1) overburden, raw material, product, or process wastes and (2) oil, grease or hazardous substances. The report sets out factors for the Administrator to consider in determining contamination for the latter group of pollutants.

NRDC first claims that because section 402(l)(2) treats oil, gas and mining together, the EPA rule must do the same. NRDC's second objection is based on its interpretation of the language in the conference report. Because the conference report lists RQs as only one factor to be taken into consideration, NRDC insists EPA cannot make it the only factor to measure contamination for oil and gas facilities.

Both of these arguments must fail in light of the conference report, which gives the Administrator discretion to determine when contamination has occurred with respect to the substances listed in the statute, i.e., overburden, raw materials, waste products, etc. See CWA § 402(l)(2). The conference report states that the Administrator shall take certain factors into account, but the report is clear that the determination of whether storm water is contaminated is within the Administrator's discretion.

NRDC argues that the remarks of certain congressmen during congressional debate show that the mining, oil, and gas exemptions were to apply only if the discharges were entirely free of contaminants. We find these examples less persuasive than the clear language of the conference report. Moreover, in light of the discretion granted the Administrator in the conference report, we cannot say that the rule as promulgated is an arbitrary and capricious exercise of that discretion.

NRDC also contends that Congress intended that EPA consider reportable quantities only in determining if a discharge is contaminated with oil, grease, or hazardous substances. Other pollutants, according to NRDC, must be found to contaminate the discharge if they exceed background levels.

EPA did not, in fact, limit itself to reportable quantities in determining which oil or gas facilities must apply for a permit. The rule requires a permit for any facility which "[c]ontributes to a violation of a water quality standard." 40 C.F.R. § 122.26(c)(1)(iii)(C). This requirement addresses contamination with substances other than oil and hazardous substances. We find no support in the statute or the legislative history for NRDC's claim that, with respect *1308 to these substances, levels above background must be considered "contamination." The conference report quoted above requires consideration of background levels of any pollutant only with respect to mining operations.

D. Lack of Controls for Municipal Storm Water Discharge.

14 NRDC contends that EPA has failed to establish substantive controls for municipal storm water discharges as required by the 1987 amendments. Because Congress gave the administrator discretion to determine what controls are necessary, NRDC's argument fails.

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 existing, stricter controls for industrial storm water dischargers but prescribed new controls for municipal storm water discharge. CWA § 402(p)(3)(A), (B), 33 U.S.C. § 1342(p)(3)(A)-(B). The Act states that 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-storm water 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.*

Section 402(p)(3)(B), 33 U.S.C. § 1342(p)(3)(B) (emphasis added).

NRDC charges that the EPA regulations accomplish neither of the goals above, i.e., they do not effectively prohibit non-storm water discharges nor do they require the controls described in ¶ (iii), above. NRDC argues that Congress granted the moratorium precisely to give EPA the opportunity to develop new, substantive standards for storm water control of municipal sources and instead EPA wrote vague regulations containing no minimum criteria or performance standards.¹⁷ However, the language in ¶ (iii), above, requires the Administrator or a state to design controls. Congress did not mandate a minimum standards approach or specify that EPA develop minimal performance requirements. NRDC also claims that the testing requirements are inadequate because there is only limited sampling at a limited number of sites. However, we must defer to EPA on matters such as this, where EPA has supplied a reasoned explanation of its choices. *See* 55 Fed.Reg. at 48,049.

NRDC's argument that the EPA rule is inadequate cannot prevail in the face of the clear statutory language and our standard of review. Congress could have written a statute requiring stricter standards, and it did not. We therefore reject NRDC's argument that EPA's storm water control regulations fail to comply with the statute.¹⁸

E. Lack of Notice and Comment on the Approval of Part 1 of Industrial Group Storm Water Applications.

NRDC objects to the lack of opportunity for notice and comment before EPA approval of part 1 of group applications for industrial dischargers. Each member of a proposed group must submit part 1 of the application.¹⁹ If EPA approves part 1, only *1309 a small subset of the member facilities need submit part 2 of the application. 55 Fed.Reg. at 48,072 (to be codified at 40 C.F.R. 122.26(e)(2)). NRDC claims that because approval of part 1 waives the requirement of filing

part 2 for most members of a group, EPA's decision on part 1 is equivalent to a "rule" requiring notice and comment from the public. The issue thus presented is whether EPA's decision on a part 1 group permit application is a "rule" as defined in 5 U.S.C. § 551(4) (1988)²⁰ requiring public notice and opportunity to comment under 5 U.S.C. § 553 (1988), or is otherwise subject to the notice and comment requirement.

15 NRDC argues that approval or disapproval of a part 1 application requires public comment because it has "general applicability" pursuant to 5 U.S.C. § 551(4) and because it will have a "palpable effect" in that it will relieve the majority of entities in the group from submitting data in part 2 of the application. NRDC cites *NRDC v. EPA*, 683 F.2d 752 (3rd Cir.1982) and *Council of Southern Mountains, Inc. v. Donovan*, 653 F.2d 573 (D.C.Cir.1981) in support of its argument. Both cases involved the postponement of regulations. See *NRDC*, 683 F.2d at 753-54, 764 (indefinite postponement of effective date of final amendments to regulations dealing with the discharge of toxic pollutants requires notice and comment because it has a substantial impact on the public and the industry); *Council of Southern Mountains, Inc.*, 653 F.2d at 575, 580 n. 28 (deferral of implementation of regulations requiring coal operators to supply life-saving equipment ordinarily would require notice and comment because it has a "palpable effect" upon the industry and the public).

We find these cases to be distinguishable. Both involve the postponement of rules of general applicability to an entire industry, or to a large class of pollutants. In contrast, although the part 1 application process will relieve some entities from the need to furnish further data, the decision is specific to a particular permit application and approval of a preliminary application will not implement, interpret or prescribe any general law or policy pursuant to 5 U.S.C. § 551(4). Rulemaking ordinarily involves "broad judgments, legislative in nature rather than the resolution of a particular dispute of facts." *Washington Utilities & Transportation Com'n v. Federal Communication Commission*, 513 F.2d 1142, 1160 (9th Cir.1975), cert. denied, 423 U.S. 836, 96 S.Ct. 62, 46 L.Ed.2d 54 (1975). The decision to approve a part 1 permit application, although it may affect a large number of applicants, is nevertheless focused on a specific factual question: whether the application adequately designates a representative smaller group subject to the more extensive data gathering requirements in part 2 of the application. See 55 Fed.Reg. at 48,028. Because the decision involves a discrete, factual issue, the better view is that it is neither a rule nor otherwise subject to the notice and comment requirement.

Because approval of a part 1 application is essentially a factual determination, we hold that EPA's group permit application process for industrial dischargers is not invalid by its failure to provide for notice and comment.

III. CONCLUSION

In summary, we grant and deny relief as follows:

1. *"Deadlines" issue.* We grant the request for declaratory relief and deny the request for injunctive relief. We deny the request to place small, medium and large municipalities on the same permitting schedule. We hold that EPA's failure to include deadlines for permit approval or denial and compliance consistent with CWA § 402(p) is arbitrary and capricious.

2. *Exclusion of Sources from Regulation.* We uphold the definition of "municipal *1310 separate storm sewers serving a population." We hold that the exemption for construction sites of less than five acres is arbitrary and capricious and remand for further proceedings. Based on the record before us, we vacate that portion of the rule regulating "light industry" and remand for further proceedings.

3. *Other issues.* We uphold the rule as to oil and gas operations and storm water control. We further hold that EPA approval of part 1 of a group application for an industrial discharger is not a rule requiring notice and comment from the public.

Petition for Review GRANTED IN PART and DENIED IN PART.

APPENDIX A

CWA § 402, 33 USCA § 1342

(1) Limitation on permit requirement

....

(2) Stormwater runoff from oil, gas, and mining operations

The Administrator shall not require a permit under this section, nor shall the Administrator directly or indirectly require any State to require a permit, for discharges of stormwater runoff from mining operations or oil and gas exploration, production, processing, or treatment operations or transmission facilities, 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 do not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct, or waste products located on the site of such operations.

(p) Municipal and industrial stormwater discharges

(1) General rule

Prior to October 1, 1992, 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 *1311 the State determines appropriate for the control of such pollutants.

(4) Permit application requirements

(A) Industrial and large municipal discharges

Not later than 2 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraphs (2)(B) and (2)(C). Applications for permits for such discharges shall be filed no later than 3 years after February 4, 1987. Not later than 4 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(B) Other municipal discharges

Not later than 4 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraph (2)(D). Applications for permits for such discharges shall be filed no later than 5 years after February 4, 1987. Not later than 6 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(5) Studies

The Administrator, in consultation with the States, shall conduct a study for the purposes of-

(A) identifying those stormwater discharges or classes of stormwater discharges for which permits are not required pursuant to paragraphs (1) and (2) of this subsection;

(B) determining, to the maximum extent practicable, the nature and extent of pollutants in such discharges; and

(C) establishing procedures and methods to control stormwater discharges to the extent necessary to mitigate impacts on water quality.

Not later than October 1, 1988, the Administrator shall submit to Congress a report on the results of the study described in subparagraphs (A) and (B). Not later than October 1, 1989, the Administrator shall submit to Congress a report on the results of the study described in subparagraph (C).

(6) Regulations

Not later than October 1, 1992, the Administrator, in consultation with State and local officials, shall issue regulations (based on the results of the studies conducted under paragraph (5)) which designate stormwater discharges, other than those discharges described in paragraph (2), to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources. The program shall, at a minimum, (A) establish priorities, (B) establish requirements for State stormwater management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.

O'SCANNLAIN, Circuit Judge, concurring in part and dissenting in part:

I concur in Parts I, II.A, II.C.1, II.C.4, II.E, and much of Part II.B of the majority opinion. I dissent from Part II.B.2.c, directing EPA to issue supplemental regulations. I dissent also from Parts II.C.2 and II.C.3, in which the court invalidates EPA's exclusion of storm water discharges from certain light industrial and small construction sites from the definition of "discharges associated with industrial activity." Finally, I concur in the result, but not the reasoning, of Part II.D, holding that EPA has not acted unlawfully by failing to include specific control requirements in the permit application regulations.

*1312 I

The majority holds that EPA has violated statutory requirements by failing to set dates for approval of, and compliance with, permits as part of its permit application program. *Ante* at 1300. Despite the holding in Part II.B.2.b that injunctive relief is inappropriate (with which I agree), the majority in Part II.B.2.c orders EPA to issue supplemental regulations setting such deadlines immediately.

I am not convinced that the statute requires EPA to set these deadlines as part of the permit application process. The provision at issue reads, in relevant part:

(4) Permit application requirements

(A) Industrial and large municipal discharges

Not later than 2 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraphs (2)(B) and (2)(C). Applications for permits for such discharges shall be filed no later than 3 years after February 4, 1987. Not later than 4 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

(B) Other municipal discharges

Not later than 4 years after February 4, 1987, the Administrator shall establish regulations setting forth the permit application requirements for stormwater discharges described in paragraph (2)(D). Applications for permits for such discharges shall be filed no later than 5 years after February 4, 1987. Not later than 6 years after February 4, 1987, the Administrator or the State, as the case may be, shall issue or deny each such permit. Any such permit shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the date of issuance of such permit.

CWA § 402(p)(4); 33 U.S.C. § 1342(p)(4) (1988).

While the statute establishes a time line EPA must follow, it does not, in my view, require that EPA include the deadline for permit approval in the permit application regulations. I agree that, given EPA's past delays and the fact that the statutory dates for issuance or denial of permits are now long past, it is appropriate for this court to declare that the statute requires EPA to issue or deny permits within one year of the application deadline. I do not, however, see that any purpose is served by requiring EPA to issue supplemental regulations setting out these deadlines, and I doubt our authority to do so.

With respect to compliance deadlines, the statute contemplates that such deadlines will be set in individual permits as they are issued. *See* CWA § 402(p)(4)(A), (B) ("Any such permit shall provide for compliance..."). Each permit must contain a compliance deadline, which may not

exceed three years from the date of issuance. Nothing in the statute requires EPA to establish compliance deadlines now, before any permits have been issued. Accordingly, in my view, NRDC's challenge to the lack of compliance deadlines in EPA's current regulations is premature. I therefore dissent from Part II.B.2.c of the majority opinion.

II

I dissent also from Parts II.C.2 and II.C.3. In my view, EPA's definition of "discharge associated with industrial activity" is a reasonable construction of an ambiguous statute, entitled to deference. While my colleagues acknowledge that we may not overturn an agency rule that represents a "permissible construction" of a statute, *ante* at 1297 (quoting *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 843, 104 S.Ct. 2778, 2781, 81 L.Ed.2d 694 (1984)), they fail to apply that axiom.

A

EPA's rule excludes from the permitting requirement certain light industry facilities at which "areas where material handling equipment or activities, raw materials, intermediate *1313 products, final products, waste materials, byproducts, or industrial machinery" are not exposed to storm water. *See* 40 C.F.R. § 122.26(b)(14). EPA determined that discharges from such facilities do not fall within the definition of "discharges associated with industrial activity." In my view, this determination was reasonable.

The majority concedes that the statute does not define "discharge associated with industrial activity." *Ante* at 1304. The operative phrase, as my colleagues note, is "associated with." *See id.* For purposes of evaluating the light industry exemption, I concede that manufacturing falls within the generally accepted meaning of "industrial activity," and that many of the facilities exempted by the EPA rule are manufacturers. Nonetheless, that concession does not compel the conclusion that discharges from such facilities are "associated with industrial activity."

The majority concludes, without explanation, that the phrase "discharges associated with industrial activity" is "very broad." *Ante* at 1304. Neither the plain meaning of the term "associated" nor the legislative history of the statute support this conclusion. "Associated with" means closely related to or connected with. *See Webster's Ninth New Collegiate Dictionary* 110 (1986). To the extent it casts any light on the subject, the legislative history supports a narrow reading of

the phrase "associated with." Four members of the House, in the course of floor debates on the measure both before and after President Reagan's veto, explained that:

[a] discharge is associated with industrial activity if it is *directly related to manufacturing, processing or raw materials storage areas at an industrial plant.*

Discharges which do not meet this definition include those discharges associated with parking lots and administrative and employee buildings.

133 Cong.Rec. 985 (1987) (statement of Rep. Hammerschmidt) (emphasis added).¹ The underscored language suggests that Congress intended to regulate only discharges directly related to certain activities at industrial facilities. EPA's interpretation, that discharges are "directly related" to these activities only if storm water may reasonably be expected to come into contact with them before its discharge, is eminently logical.

The majority opinion interprets the exclusion of parking lots as an expression of congressional intent "to exclude only those facilities or parts of a facility that are completely nonindustrial." *Ante* at 1304. My colleagues' reliance on the second sentence of the statement quoted above to establish this intent, however, is misplaced. The sentence relied on cannot assist us in our search for the meaning of "associated with" because it employs that very term. Moreover, it does not pretend to establish an exhaustive list of areas excluded from regulation. Legislators listed discharges from parking lots and administrative and employee buildings as *among those* not directly related to industrial activity; no one suggested that *only* discharges associated with those structures were to be excluded.

EPA's definition is consistent with the plain words of the statute and, to the extent any intent is discernible, the congressional intent. EPA has defined the term "storm water discharge associated with industrial activity" to cover only those discharges reasonably expected to come into contact with industrial activities. A large number of facilities automatically fall within EPA's definition and are required to *1314 apply for permits. Because facilities falling within certain specified classifications under the Standard Industrial Classification manual generally conduct their operations entirely indoors, minimizing the likelihood of contact with storm water, EPA has not automatically included them within the regulations. However, these facilities *are* required

to apply for permits if "areas where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery at these facilities are exposed to storm water." 40 C.F.R. § 122.26(b)(14). If a storm water discharge is in fact directly related to or associated with the industrial activity carried on at a facility falling within the light industry category, the facility must obtain a permit.²

In my view, the statute's treatment of oil and gas facilities supports EPA's reading of the term "associated with industrial activity." Congress specifically exempted from the permit requirement discharges from oil and gas facilities and mining operations which have not come in contact with raw materials, finished products, or waste products. CWA § 402(l)(2). This section indicates a congressional intent to exempt uncontaminated discharges which have not come into contact with "industrial activities" from regulation. For oil, gas, and mining operations, Congress in this section supplied a specific, and quite limited, definition of "industrial activities." For other facilities, that definition was left to the discretion of EPA, which has adopted a much broader definition, encompassing contact with such things as industrial machinery and materials handling equipment. See 40 C.F.R. § 122.26(b)(14).

I do not mean to suggest that the majority's construction of the statute is untenable. It may even be preferable to the reading chosen by the agency. Nonetheless, in my view the statute is ambiguous and the legislative history does not demonstrate any clear congressional intent. The question before this court, therefore, is not whether "the agency construction was the only one it permissibly could have adopted" or even whether it is the "reading the court would have reached if the question initially had arisen in a judicial proceeding." *Chevron, U.S.A. v. NRDC*, 467 U.S. 837, 843 n. 11, 104 S.Ct. 2778, 2782 n. 11, 81 L.Ed.2d 694 (1984). We need only inquire if the agency's construction is a permissible one. *Id.* at 843, 104 S.Ct. at 2781. EPA's definition falls well within permissible bounds, and should be upheld.

B

Although the issue is closer, I also am not persuaded that EPA's exemption for construction sites under five acres should be struck down. EPA has not conceded that "construction activity is industrial in nature." *Ante* at 1306. In the preamble to its final rule, EPA noted that "Construction activity at a high level of intensity is comparable to other

activity that is traditionally viewed as industrial, such as natural resource extraction."³ 55 Fed.Reg. 48,033 (1990) (emphasis added). EPA explained that it was "attempting to focus [regulation] only on those construction activities *1315 that resemble industrial activity." 55 Fed.Reg. at 48,035 (emphasis added).

Neither NRDC nor the majority point to anything in the statute or the legislative history that would require the agency to define "industrial activity" as including all construction operations. Accordingly, I believe deference is due EPA's definition, provided it is not arbitrary, capricious, or manifestly contrary to the statute. *Chevron, U.S.A.*, 467 U.S. at 844, 104 S.Ct. at 2782.

In trying to determine when construction should be treated as industrial activity, EPA considered a number of possible approaches. See 55 Fed.Reg. at 48,035. Exempting construction that would be completed within a certain designated time frame was deemed inappropriate, because the work could be both intensive and expansive but nonetheless take place over a short period of time. Basing the limit on quantity of soil removed was also rejected as not relating to the amount of land surface disturbed. EPA finally settled on the surface area disturbed by the construction project as a feasible and appropriate mechanism for "identifying sites that are [sic] amount to industrial activity." 55 Fed.Reg. at 48,036.

Having determined that not all construction amounts to industrial activity, and that the appropriate basis for differentiation is land area disturbed, EPA then had to determine where to draw the line. Initially, EPA proposed to exempt all construction operations disturbing less than one acre of land, as well as single family residential projects disturbing less than five acres. 53 Fed.Reg. 49,431 (1988). In the final rule, however, EPA adopted a five-acre minimum for all construction projects. 55 Fed.Reg. 48,066 (1990); 40 C.F.R. § 122.26(b)(14)(x).

Admittedly, the final rule contains little in the way of justification for treating two-acre sites differently than five-acre ones, but that does not necessarily make it arbitrary and capricious. Line-drawing is often difficult. NRDC was apparently willing to accept EPA's proposed one-acre/five-acre rule. Although NRDC now challenges the blanket five-acre rule, it offers no evidence that sites excluded from the permitting requirement constitute "industrial activity." In such absence of any evidence in the record undermining EPA's conclusion on an issue squarely within its expertise, I believe the rule must be upheld.⁴

III

Finally, while I concur in the result reached by the majority in Part II.D, rejecting NRDC's claim that EPA has unlawfully failed to require substantive controls on municipal discharges, I disagree with the majority's reasoning. In my view, NRDC's claim is premature, and we should decline to address its merits.

NRDC contends that the 1987 amendments require EPA to establish substantive controls for municipal storm water discharges. In support of this argument, NRDC relies on CWA § 402(p)(3)(B), 33 U.S.C. § 1342(p)(3)(B), which provides:

Permits for discharges from municipal storm sewers-

(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....

This section refers only to *permits*, and says nothing about permit applications. Because EPA has yet to issue any

Footnotes

- 1 National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges, 55 Fed.Reg. 47,990 (1990) (to be codified at 40 C.F.R. § 122.26); National Pollutant Discharge Elimination System Permit Application Regulations for Storm Water Discharges; Application Deadline for Group Applications, 56 Fed.Reg. 12,098 (1991) (to be codified at 40 C.F.R. § 122.26(e)).
- 2 The Act is popularly known as the Clean Water Act or the Federal Water Pollution Control Act. 33 U.S.C. § 1251. For more background on the CWA, see *EPA v. State Water Resources Control Bd.*, 426 U.S. 200, 202-09, 96 S.Ct. 2022, 2023-26, 48 L.Ed.2d 578 (1976); *Sierra Club v. Union Oil of California*, 813 F.2d 1480, 1483 (9th Cir.1987), *vacated on other grounds*, 485 U.S. 931, 108 S.Ct. 1102, 99 L.Ed.2d 264 (1988); and *Natural Resources Defense Council v. Train*, 510 F.2d 692, 695-97 (D.C. Cir.1975).
- 3 The Nationwide Urban Runoff Program (NURP) conducted from 1978 through 1983 found that urban runoff from residential, commercial and industrial areas produces a quantity of suspended solids and chemical oxygen demand that is equal to or greater than that from secondary treatment sewage plants. 55 Fed.Reg. at 47,991. A significant number of samples tested exceeded water quality criteria for one or more pollutants. *Id.* at 47,992. Urban runoff is adversely affecting 39% to 59% of the harvest-limited shellfish beds in the waters off the East Coast, West Coast and in the Gulf of Mexico. 56 Fed.Reg. at 56,548.
- 4 See 132 Cong. Rec. 32,381 (1986).
- 5 Senator Stafford, speaking in favor of the conference report for the Water Quality Act, noted that "EPA should have developed this program long ago. Unfortunately, it did not. The conference substitute provides a short grace period during which EPA and the States generally may not require permits for municipal separate storm sewers." 132 Cong. Rec. 32,381 (1986). Senator Chafee stated "[t]he Agency has been unable to move forward with a [storm water discharge control] program, because the current law did not give enough guidance to the Agency. This provision provides such guidance, and I expect EPA to move rapidly to implement this control program." 133 Cong. Rec. 1,264 (1987).
- 6 Pub.L. No. 100-4, 101 Stat. 7 (1987) (codified as amended in scattered sections of 33 U.S.C.).
- 7 Large municipal systems are those serving a population of 250,000 or more. § 402(p)(2)(C).

permits, NRDC's claim on this point is premature. In the absence of any indication to the contrary, we must assume that any permit issued will comply with all applicable statutory requirements. The statute does not require that EPA detail the substantive controls to be imposed when establishing permit application requirements. Accordingly, I would reject NRDC's claim without *1316 reaching the issue of the Administrator's discretion in selecting those controls.

IV

In sum, I join much of my colleagues' opinion. However, I would not require EPA to issue supplemental regulations detailing the time line for issuance of and compliance with permits, and I would uphold EPA's definition of "discharge associated with industrial activity." Finally, I would reject NRDC's claim that EPA is required to detail control measures in the permit application regulations on the grounds that the statute requires control measures only in the permits themselves.

Parallel Citations

34 ERC 2017, 61 USLW 2015, 22 Env'tl. L. Rep. 20,950

- 8 Since NRDC filed this action, Congress has passed certain legislation affecting some of the deadlines at issue. Congress ratified the date of September 30, 1991 for part 1 of group applications for industrial dischargers. *See* Dire Emergency Supplemental Appropriations Act of 1991, Pub.L. No. 102-27, § 307, 105 Stat. 130, 152 (1991). Section 1068 of the Intermodal Surface Transportation Efficiency Act of 1991 ("ISTEA") clarifies the deadlines for storm water discharges associated with industrial activity from facilities owned or operated by a municipality. Pub.L. No. 102-240, § 1068, 105 Stat. 1914, 2007 (1991). ISTEA deadlines are being reviewed in a separate case. Nothing in this opinion should be viewed as requiring EPA to comply with deadlines that have been altered or superseded by the ISTEA.
- 9 *See* 55 Fed.Reg. at 48,071-722 (to be codified at 40 C.F.R. § 122.26(e)); 67 Fed.Reg. at 12,100 (to be codified at 40 C.F.R. § 122.26(e)(2)(iii)). EPA changed certain of these deadlines after this case was submitted. These changes are the subject of a separate case. The EPA rules at issue set no date for final approval or denial of applications from municipal or industrial dischargers, nor for compliance by these regulated entities. *See* 55 Fed.Reg. at 48,072.
- 10 NRDC initially claimed that this extension was unlawful because it was granted without proper notice and comment. However, Congress approved this extended deadline in a supplemental appropriations bill. Dire Emergency Supplemental Appropriations Act of 1991, Pub.L. No. 102-27 § 307, 105 Stat. 130, 152 (1991). This Act moots the procedural and substantive challenge to this extended deadline.
- 11 In addition, pursuant to the statute, compliance deadlines applicable to each facility shall be contained in its permit.
- 12 The rule also permits the Administrator to include certain other systems as part of a medium or large system due to the physical interconnections between the systems, their locations, or certain other factors. *See* 40 C.F.R. § 122.26(b)(4)(iii), (iv) and (b)(7)(iii), (iv).
- 13 Storm sewers located within the boundaries of a city might be part of a state highway system, a flood control district, or a system operated by the state or county. *See* 55 Fed.Reg. at 48,041.
- 14 *See, e.g.*, 133 Cong. Rec. 991 (1987) (statement of Rep. Stangeland).
- 15 "Reportable Quantities" (RQs) are not effluent guidelines setting up permissible limits for pollutants. Rather, they are quantities the discharge of which "may be harmful to the public health or welfare of the United States." CWA § 311(b)(4), 33 U.S.C. § 1321(b)(4). EPA has established RQs for a large number of substances, pursuant to both CWA section 311, 33 U.S.C. § 1321, and the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") section 102, 42 U.S.C. § 9602. *See* 40 C.F.R. Parts 110, 117, 302. The operator of any vessel or facility which releases the RQ of any substance must immediately notify the National Response Center. *See, e.g.*, 40 C.F.R. § 110.10.
- 16 Operators of mines must submit permit applications whenever storm water discharges come into contact with overburden, waste products, etc. 40 C.F.R. § 122.26(c)(1)(iv).
- 17 The requirements for permit applications are set forth at 40 C.F.R. § 122.26(d). Individual NPDES permit writers (EPA or state officials) will decide whether application proposals are adequate. Applicants must submit information on source control methods and estimate the annual pollutant load reduction to be achieved from their proposed management programs, but they are not required to achieve any specified level of reduction of any pollutants. *See* 55 Fed.Reg. at 48,070-71.
- 18 We base our holding on NRDC's challenge to the regulations at issue. Whether a specific permit complies with the requirements of section 402(p)(3)(B) would, of course, be another matter not controlled by this decision.
- 19 Part I must include the identity of the group's participants, a description of the participants' industrial activities, a list of significant materials exposed to precipitation and the identity of the subset of the group's members who will submit quantitative data in part 2 of the application. 55 Fed.Reg. at 48,067.
- 20 A rule means "the whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency...." 5 U.S.C. § 551(4).
- 1 This statement was repeated verbatim by Reps. Stangeland and Snyder. 133 Cong. Rec. at 991-92; 132 Cong. Rec. at 31,959, 31,964 (1986). Rep. Rowland offered a slight variation on the theme:
One of the discharge categories is "a discharge associated with an industrial activity." A discharge is not considered to be associated with industrial activity unless it is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. Such discharges include [sic] those from parking lots and administrative areas and employee buildings.
132 Cong. Rec. at 31,968. Rep. Rowland apparently misspoke; he probably meant, like the other legislators who addressed the topic, to say "[s]uch discharges *do not* include" those from parking lots.
- 2 Thus, nothing turns on the assumption, attacked by my colleagues as unsupported by the record, *ante* at 1304, that industrial activities at this category of facilities will take place largely indoors. Where the assumption does not hold true, the permit requirement applies with full force. I also note that NRDC has pointed us to no evidence undermining EPA's assumption.

Unlike my colleagues, I decline to assume that EPA will not carry out its responsibility to identify and to require permits of facilities where industrial activities are in fact exposed to storm water, or that such facilities will ignore their statutory duty to apply for permits. Should that occur, a lawsuit challenging EPA's failure to enforce its regulations might well be in order. An unsubstantiated suspicion that EPA may not vigorously enforce its regulations, however, does not make those regulations arbitrary or capricious.

3 EPA did admit that "[e]ven small construction sites may have a significant negative impact on water quality in localized areas," 55 Fed.Reg. at 48,033. In the absence of any indication of what EPA meant by "small," however, that statement does not undermine EPA's exemption of sites under five acres.

4 Because I conclude that the rule falls within the permissible bounds of the statutory definition of "discharges associated with industrial activity," I need not consider the applicability of the *de minimis* exception.

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Attachment 23

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64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754,
63 Cal. Comp. Cases 733, 98 Cal. Daily Op.
Serv. 4644, 98 Daily Journal D.A.R. 6559

CITY OF RICHMOND, Plaintiff and Appellant,
v.

COMMISSION ON STATE MANDATES,
Defendant and Respondent; DEPARTMENT OF
FINANCE, Real Party in Interest and Respondent.

No. Co26835.

Court of Appeal, Third District, California.

May 28, 1998.

SUMMARY

A city filed an administrative mandamus action against the Commission on State Mandates, seeking a determination that an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, was a state mandate to which the city was entitled to reimbursement under Cal. Const., art. XIII B, § 6, which applies when a state law establishes a new program or higher level of service payable by local governments. The amendment eliminated local safety members of PERS from the coordination provisions for death benefits payable under workers' compensation and under PERS, whereby survivors of a local safety member of PERS who are killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. The trial court denied the petition, finding that the amendment created an increased cost but not an increased level of service by local governments. (Superior Court of Sacramento County, No. 96CS03417, James Timothy Ford, Judge.)

The Court of Appeal affirmed. The court held that although the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did the amendment impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. Local entities are not entitled to reimbursement

for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. The court also held that assembly bill analyses stating that the amendment was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review, and has provided that the initial determination by Legislative Counsel is not binding on the commission. (Opinion by Morrison, J., with Puglia, P. J., and Nicholson, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1) Administrative Law § 138--Judicial Review and Relief--Appellate Court-- Standard--Decision of Commission on State Mandates.

Under Gov. Code, § 17559, a proceeding to set aside a decision of the Commission on State Mandates on a claim may be commenced on the ground that the commission's decision was not supported by substantial evidence. Where the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, review on appeal is generally the same. However, the appellate court independently reviews the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. The question of whether a law is a state-mandated program or a higher level of service under Cal. Const., art. XIII B, § 6, is a question of law that is reviewed de novo.

(2a, 2b, 2c) State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Workers' Compensation Death Benefits Payable to Local Safety Members.

An amendment to Lab. Code, § 4707, to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for death benefits payable under workers' compensation and under PERS, whereby the survivors of a local safety member of PERS who is killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter, did not mandate a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under Cal. Const., art. XIII B, § 6. Although

the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did it impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers.

(3a, 3b) State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Purpose.

Cal. Const., art. XIII B, § 6, which requires a subvention of funds to reimburse local governments when a state law mandates a new program or higher level of service on local governments, was intended to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 123A.]

(4) Statutes § 43--Construction--Aids--Legislative Analysis--Reimbursement for State Mandates--Legislative Intent.

Assembly bill analyses of an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, stating that it was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review (Gov. Code, §§ 17500, 17559) and has provided that the initial determination by legislative counsel is not binding on the commission (Gov. Code, § 17575).

COUNSEL

Nossaman, Guthner, Knox & Elliott, Robert J. Sullivan, Stephen P. Wilman, John T. Kennedy and Scott N. Yamaguchi for Plaintiff and Appellant.

Dwight L. Herr, County Counsel (Santa Cruz), Ronald R. Ball, City Attorney (Carlsbad), Michael G. Colantuono, City Attorney (Cudahay), William B. Connors, City Attorney (Monterey), Jonathan B. Stone, City Attorney (Montebello),

Daniel J. McHugh, City Attorney (Redlands), Jeffrey G. Jorgensen, City Attorney (San Luis Obispo), Brian Libow, City Attorney (San Pablo), Howard, Rice, Nemerovski, Canady & Falk and Richard C. Jacobs as Amici Curiae on behalf of Plaintiff and Appellant.

Gary D. Hori and Shawn D. Silva for Defendant and Respondent.

Daniel E. Lungren, Attorney General, Linda A. Cabatic, Assistant Attorney General, Marsha Bedwell and Shelleyanne W. L. Chang, Deputy Attorneys General, for Real Party in Interest and Respondent. *1193

MORRISON, J.

Chapter 478 of the Statutes of 1989 (chapter 478) amended Labor Code section 4707 to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for death benefits payable under workers' compensation and under PERS. As a result, the survivors of a local safety member of PERS who is killed in the line of duty receives both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. This proceeding presents the question whether chapter 478 mandates a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under article XIII B section 6 of the California Constitution. We conclude that chapter 478 is not a state mandate requiring reimbursement and affirm the judgment.

Factual and Procedural Background

The workers' compensation system provides for death benefits payable to the deceased employee's survivors. (Lab. Code, § 4700 et seq.) There are also preretirement death benefits under PERS. (Gov. Code, § 21530 et seq.) There is a special death benefit under PERS if the death was industrial and the deceased was a patrol, state peace officer/firefighter, state safety officer, state industrial, or local safety member. (Gov. Code, § 21537.) Labor Code section 4707 provides a coordination or offset for workers' compensation death benefits when the special death benefit under PERS is payable. In such cases, no workers' compensation death benefit, other than burial expenses, is payable, except that if the PERS special death benefit is less than the workers' compensation death benefit, the difference is paid as a workers' compensation death benefit. The total death benefit is equal to the greater of the PERS special death benefit or the workers' compensation benefit, not the combination of the two death benefits.

Prior to 1989, Labor Code section 4707 provided in part: "No benefits, except reasonable expenses of burial ... shall be awarded under this division on account of the death of an employee who is a member of the Public Employees' Retirement System unless it shall be determined that a special death benefit ... will not be paid by the Public Employees' Retirement System to the widow or children under 18 years of age, of the deceased, on account of said death, but if the total death allowance paid to said widow and children shall be less than the benefit otherwise payable under this division such widow and children shall be entitled, under this division, to the difference." (Stats. 1977, ch. 468, § 4, pp. 1528-1529.)
*1194

Chapter 478 amended Labor Code section 4707 to make technical changes, to provide the death benefit is payable to the surviving spouse rather than to the widow, and to add subdivision (b). Subdivision (b) of Labor Code section 4707 reads: "The limitation prescribed by subdivision (a) shall not apply to local safety members of the Public Employees' Retirement System." (Stats. 1989, ch. 478, § 1, p. 1689.)

In 1992, David Haynes, a police officer for the City of Richmond (Richmond), was killed in the line of duty. Officer Haynes was a local safety member of PERS. His wife and children received the PERS special death benefit; they also received a death benefit under workers' compensation.

Richmond filed a test claim with the Commission on State Mandates (the Commission), contending chapter 478 created a state-mandated local cost.¹ Richmond sought reimbursement of the cost of the workers' compensation death benefit, estimated to be \$295,432. As part of its test claim, Richmond included legislative history of chapter 478, purporting to show a legislative intent to create a reimbursable state mandate.

The Commission denied the test claim. It found that chapter 478 dealt with workers' compensation benefits and case law held that workers' compensation laws are laws of general application and not subject to section 6 of article XIII B of the California Constitution. It noted the legislative history containing analyses that chapter 478 was a state mandate had been prepared before the issuance of *City of Sacramento v. State of California* (1990) 50 Cal.3d 51 [266 Cal.Rptr. 139, 785 P.2d 522].

Richmond filed a petition for a writ of administrative mandate under Code of Civil Procedure section 1094.5, seeking to compel the Commission to approve its claim. Both the

Commission and the Department of Finance, as real parties in interest, responded. The court denied the petition, finding chapter 478 created an increased cost but not an increased level of service by local governments.

Discussion

I

(1) Under Government Code section 17559, a proceeding to set aside the Commission's decision on a claim may be commenced on the ground that the Commission's decision is not supported by substantial evidence. Where *1195 the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, our review on appeal is generally the same. (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814 [38 Cal.Rptr.2d 304].) However, we independently review the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810 [53 Cal.Rptr.2d 521].) The question of whether chapter 478 is a state-mandated program or higher level of service under article XIII B, section 6 of the California Constitution is a question of law we review de novo. (45 Cal.App.4th at p. 1810.)

With certain exceptions not relevant here, "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service" (Cal. Const. art. XIII B, § 6, (hereafter referred to as section 6).)

In *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202], the Supreme Court considered whether laws increasing the amount employers, including local governments, had to pay in certain workers' compensation benefits were a reimbursable "higher level of service" under section 6. The court looked to the intent of the voters in adopting the constitutional provision by initiative. (43 Cal.3d at p. 56.) Noting that the phrase "higher level of service" is meaningless alone, the court found it must be read in conjunction with the phrase "new program." The court concluded, "that the drafters and the electorate had in mind the commonly understood meanings of the term-programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on

local governments and do not apply generally to all residents and entities in the state." (*Ibid.*)

(2a) Richmond contends chapter 478 meets both tests to qualify as a program under section 6. Richmond contends increased death benefits are provided to generate a higher quality of local safety officers and thus provide the public with a higher level of service. Richmond argues that providing increased death benefits to local safety workers is analogous to providing protective clothing and equipment for fire fighters. In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 [234 Cal.Rptr. 795], executive orders requiring updated protective clothing and equipment for firefighters were found to be reimbursable state mandates under section 6. The executive orders applied only to fire protection, a peculiarly governmental function. The court noted that police and fire *1196 protection are two of the most essential and basic functions of local government. (190 Cal.App.3d at p. 537.) Richmond urges that since chapter 478 applies only to local safety members, it is also a state mandate directed to a peculiarly local governmental function.

In *Carmel Valley Fire Protection Dist. v. State of California*, *supra*, 190 Cal.App.3d 521, the executive order required updated equipment for the fighting of fires. The use of this equipment would result in more effective fire protection and thus would provide a higher level of service to the public. Here chapter 478 addresses death benefits, not the equipment used by local safety members. Increasing the cost of providing services cannot be equated with requiring an increased level of service under a section 6 analysis. A higher cost to the local government for compensating its employees is not the same as a higher cost of providing services to the public. (*City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484 [235 Cal.Rptr. 101] [temporary increase in PERS benefit to retired employees which resulted in higher contribution rate by local government was not a program or service under section 6].) In *County of Los Angeles v. State of California*, *supra*, 43 Cal.3d 46, the increase in certain workers' compensation benefits resulted in an increase in the cost to local governments of providing services. Nonetheless, the Supreme Court found no "higher level of service" under section 6. Similarly, a new requirement for mandatory unemployment insurance for local government employees, an increase in the cost of providing services, was not a "new program" or "higher level of service" in *City of Sacramento v. State of California*, *supra*, 50 Cal.3d 51, 66-70. Chapter 478 fails to meet the first test of a "program" under section 6.

Richmond urges chapter 478 meets the second test of a program under section 6 because it imposed a unique requirement on local governments that was not applicable to all residents and entities within the state. (*County of Los Angeles v. State of California*, *supra*, 43 Cal.3d 46, 56.) Richmond argues that only local governments have "local safety members" and chapter 478 required double death benefits, both PERS and workers' compensation, for this specific group of employees. By requiring double death benefits for local safety members, chapter 478 imposed a unique requirement on local government.

The Commission takes a different view of chapter 478. First, it argues that chapter 478 addresses an aspect of workers' compensation law, which, under *County of Los Angeles v. State of California*, *supra*, 43 Cal.3d 46, is a law of general application to which section 6 does not apply. The Commission argues chapter 478 imposes no unique requirement; it merely *1197 eliminates the previous exemption from providing workers' compensation death benefits to local safety members. As such, chapter 478 simply puts local government employers on the same footing as all other nonexempt employers, requiring that they provide the workers' compensation death benefit. That chapter 478 affects only local government does not compel the conclusion that it imposes a unique requirement on local government. The Commission contends Richmond's view of chapter 478 is too narrow; the law must be considered in its broader context.

While Richmond's argument has surface appeal, we conclude the Commission's view is the correct one. Section 6 was designed to prevent the state from forcing programs on local government. (3a) "[T]he intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not passed by the Legislature to 'force' programs on localities." (*County of Los Angeles v. State of California*, *supra*, 43 Cal.3d at pp. 56-57.) "The goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending. [Citation.] Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs. Neither of these goals is frustrated by requiring local agencies to provide the same protections to their employees as do private

employers. Bearing the costs of salaries, unemployment insurance, and workers' compensation coverage-costs which all employers must bear-neither threatens excessive taxation or governmental spending, nor shifts from the state to a local agency the expense of providing governmental services. ("Id. at p. 61.)

Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. In *City of Sacramento v. State of California*, *supra*, 50 Cal.3d 51, the Legislature enacted a statute requiring local governments to participate in the state's unemployment insurance system on behalf of their employees. Local entities made a claim for reimbursement. First, the Supreme Court found that like an increase in workers' compensation benefits, a requirement to provide unemployment insurance did not compel new or increased "service to the public" at the local level. (*Id.* at pp. 66-67.) The court next addressed whether the new law imposed a unique requirement on local governments.

"Here, the issue is whether costs *unrelated* to the provision of public services are *nonetheless* reimbursable costs of government, because they are *1198 imposed on local governments 'unique[ly],' and not merely as an incident of compliance with general laws. State and local governments, and nonprofit corporations, had previously enjoyed a special *exemption* from requirements imposed on most other employers in the state and nation. Chapter 2/78 merely eliminated the exemption and made these previously exempted entities subject to the general rule. By doing so, it may have imposed a requirement 'new' to local agencies, but that requirement was not 'unique.' [¶] The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision." (*City of Sacramento v. State of California*, *supra*, 50 Cal.3d 51, 68-69, italics in original.)

Richmond argues that Labor Code section 4707, prior to chapter 478, was not an exemption from workers' compensation, relying on *Jones v. Kaiser Industries Corp.* (1987) 43 Cal.3d 552 [237 Cal.Rptr. 568, 737 P.2d 771]. In *Jones*, the plaintiff, a city police officer, was killed in a traffic accident while on duty. His survivors brought suit against the city, contending it has created and maintained a dangerous condition at the intersection where the accident

occurred. Plaintiffs argued their suit was not barred by the exclusivity provisions of workers' compensation because they did not receive a workers' compensation death benefit under Labor Code section 4707. The court rejected this argument. First, plaintiffs did receive a benefit under workers' compensation in the form of burial expenses. Further, Labor Code section 4707 was designed not to exclude plaintiffs from receiving workers' compensation benefits, but to assure they received the maximum benefit under either PERS or workers' compensation. (43 Cal.3d at p. 558.)

Under *Jones v. Kaiser Industries Corp.*, *supra*, 43 Cal.3d 552, one receiving a special death benefit under PERS rather than the workers' compensation death benefit is not considered exempt from workers' compensation for purposes of its exclusivity provisions, precluding a suit against the employer for negligence. This conclusion does not affect the analysis that chapter 478, by removing the offset provisions for employers of local safety members, merely makes local governments "indistinguishable in this respect from private employers." (*County of Los Angeles v. State of California*, *supra*, 43 Cal.3d at p. 58.)

(2b) Richmond's error is in viewing chapter 478 from the perspective of what the final result is, rather than from the perspective of what the law mandates. (3b) "We recognize that, as is made indisputably clear from *1199 the language of the constitutional provision, local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state." (*Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835 [244 Cal.Rptr. 677, 750 P.2d 318].) (2c) While the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments.

Further, the view that the Legislature was proceeding by stages in enacting chapter 478 finds support in the history of the nearly identical predecessor to chapter 478, Assembly Bill No. 1097 (1987-1988 Reg. Sess.). Assembly Bill No. 1097 was passed in 1988, but was vetoed by the Governor. While the final version of Assembly Bill No. 1097 was virtually identical to chapter 478 in adding subdivision (b) to Labor

Code section 4707 (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended Mar. 22, 1988), the bill was very different when it began. The initial version of Assembly Bill No. 1097 repealed Labor Code section 4707 in its entirety. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) introduced Mar. 2, 1987.) The next version made Labor Code section 4707 applicable only to state members of PERS. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended June 15, 1987.) The final version left Labor Code section 4707 applicable to all but local safety members of PERS.

II

(4) As part of its test claim, Richmond included portions of the legislative history of chapter 478 to show the Legislature intended to create a state mandate. This history includes numerous bill analyses by legislative committees that state the bill creates a state-mandated local program.

Government Code section 17575 requires the Legislative Counsel to determine if a bill mandates a new program or higher level of service under section 6. If the Legislative Counsel determines the bill will mandate a new program or higher level of service under section 6, the bill must contain a section specifying that reimbursement shall be made from the state mandate fund, that there is no mandate, or that the mandate is being disclaimed. (Gov. Code, § 17579.) The Legislative Counsel found that chapter 478 imposed *1200 a state-mandated local program. The enacted statute provided: "Notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement does not exceed one million dollars (\$1,000,000), reimbursement shall be made from the State Mandates Claims Fund." (Stats. 1989, ch. 478, § 2, p. 1689.)

One analysis concluded this language was technically deficient because it does not contain a specific acknowledgment that the bill is a state mandate. Reimbursement could not be made until the Commission held a hearing on a test claim. The analysis concluded it "should not be a serious problem because the information provided in this analysis could also be provided to the Commission on State Mandates if any local agency submits a claim for reimbursement to that Commission."

Another analysis suggested including an appropriation to avoid the necessity of the Commission having to determine that the bill was a mandate.

Richmond argues this legislative history shows the Legislature intended chapter 478 to be a state mandate and that it should be considered in making that determination. Amici curiae submitted a brief urging that case law holding that legislative history is irrelevant to the issue of whether there is a state-mandated new program or higher level of service under section 6 is wrongly decided.² Amici curiae argue that the intent of the Legislature should control. They further note that the legislative history of chapter 478 shows that the initial opposition of the League of California Cities was dropped after the bill was amended to ensure reimbursement, and that the Governor signed the bill after he had vetoed a similar one that was not considered a state mandate. Amici curiae argue that to ignore the widespread understanding that the bill created a state mandate would undermine the legislative process.

In *County of Los Angeles v. Commission on State Mandates*, supra, 32 Cal.App.4th 805, plaintiff sought reimbursement for costs incurred under Penal Code section 987.9 for providing certain services to indigent criminal defendants. Plaintiff argued the Legislature's initial appropriation of funds to cover the costs incurred under Penal Code section 987.9 was a final and *1201 unchallengeable determination that section 987.9 constituted a state mandate. The court rejected this argument. "The findings of the Legislature as to whether section 987.9 constitutes a state mandate are irrelevant." (32 Cal.App.4th at p. 818.)

The court, relying on *Kinlaw v. State of California* (1991) 54 Cal.3d 326 [285 Cal.Rptr. 66, 814 P.2d 1308], found the Legislature had created a comprehensive and exclusive procedure for implementing and enforcing section 6. (*County of Los Angeles v. Commission on State Mandates*, supra, 32 Cal.App.4th at pp. 818-819.) This procedure is set forth in Government Code section 17500 et seq. "[T]he statutory scheme contemplates that the Commission, as a quasi-judicial body, has the sole and exclusive authority to adjudicate whether a state mandate exists. Thus, any legislative findings are irrelevant to the issue of whether a state mandate exists, and the Commission properly determined that no state mandate existed." (32 Cal.App.4th at p. 819.)

In *City of San Jose v. State of California*, supra, 45 Cal.App.4th 1802, 1817-1818, the court relied upon *County of Los Angeles v. Commission on State Mandates*, supra,

32 Cal.App.4th 805, in rejecting the argument that the determination by Legislative Counsel that a bill imposed a state mandate was entitled to deference.

Amici curiae contend these cases are wrong because they ignore the cardinal rules of statutory construction that courts must construe statutes to conform to the purpose and intent of lawmakers and that the intent of the Legislature should be ascertained to effectuate the purpose of the law.

Amici curiae are correct that “ ‘the objective of statutory interpretation is to ascertain and effectuate legislative intent.’ [Citation.]” (*Trope v. Katz* (1995) 11 Cal.4th 274, 280 [45 Cal.Rptr.2d 241, 902 P.2d 259].) Where such intent is not clear from the language of the statute, we may resort to extrinsic aids, including legislative history. (*People v. Coronado* (1995) 12 Cal.4th 145, 151 [48 Cal.Rptr.2d 77, 906 P.2d 1232].) Here, however, the issue is not the interpretation of Labor Code section 4707. The parties agree it requires that the survivors of local safety members killed due to an industrial injury receive both the special death benefit under PERS and the workers' compensation death benefit. Rather, the issue is whether section 6 requires reimbursement for the costs incurred by local governments

under chapter 478. The Legislature has entrusted that determination to the Commission, subject to judicial review. (Gov. Code, §§ 17500, 17559.) It has provided that the initial determination by Legislative Counsel is not binding on the Commission. (*Id.*, § 17575.) Indeed, the language of chapter 478 recognizes that the determination of whether the bill is a state mandate lies with *1202 the Commission. It reads, “if the Commission on State Mandates determines that this act contains costs mandated by the state, ...” (Stats. 1989, ch. 478, § 2, p. 1689, italics added.) While the legislative history of chapter 478 may evince the understanding or belief of the Legislature that chapter 478 created a state mandate, such understanding or belief is irrelevant to the issue of whether a state mandate exists. (*County of Los Angeles v. Commission on State Mandates, supra*, 32 Cal.App.4th 805, 819.)

Disposition

The judgment is affirmed.

Puglia, P. J., and Nicholson, J., concurred.

Appellant's petition for review by the Supreme Court was denied August 19, 1998. *1203

Footnotes

- 1 " 'Test claim' means the first claim filed with the commission alleging that a particular statute or executive order imposes costs mandated by the state." (Gov. Code, § 17521.)
- 2 The California State Association of Counties, and the Cities of Carlsbad, Cudahy, Montebello, Monterey, Redlands, San Luis Obispo and San Pablo filed an amici curiae brief in support of Richmond.

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Attachment 24

38 Cal.Rptr.3d 450

Court of Appeal, Fourth District, Division 2, California.

CITY OF RANCHO CUCAMONGA,
Plaintiff and Appellant,

v.

REGIONAL WATER QUALITY CONTROL

BOARD-SANTA ANA REGION et
al., Defendants and Respondents;
County of San Bernardino et al., Real
Parties in Interest and Respondents.

No. E037079. Jan. 26,
2006. As Modified Feb. 27, 2006.

Synopsis

Background: Cities filed petitions for writs of mandate to challenge the procedure by which municipal storm sewer permit was issued by regional water quality control board, the conditions imposed by permit, and the expense of permit requirements. The Superior Court, San Bernardino County, No. RCV 071613, Shahla Sabet, J., sustained without leave to amend the demurrer of State Water Resources Control Board to entire action, sustained demurrer as to four causes of action and granted motion to strike of the regional board, and denied petition for writ of mandate. City appealed.

Holdings: The Court of Appeal, Gaut, J., held that:

- 1 State Water Resources Control Board was not a proper party in lawsuit;
- 2 regional water quality control board could move to strike less than all causes of action;
- 3 substantial evidence supported regional water quality control board's findings in issuing permit; and
- 4 permit requirements were not overly prescriptive.

Affirmed.

Attorneys and Law Firms

**452 James L. Markman, Brea; Richards, Watson & Gershon, John J. Harris, Los Angeles, and Evan J. McGinley, for Plaintiff and Appellant.

Bill Lockyer, Attorney General, Mary E. Hackenbracht, Senior Assistant Attorney General, Richard Magasin, Supervising Deputy Attorney General, and Jennifer F. Novak, Deputy Attorney General, for Defendants and Respondents.

Opinion

*1379 OPINION

GAUT, J.

1. Introduction

This case involves environmental regulation of municipal storm sewers that carry excess water runoff to the Santa Ana River as it passes through San Bernardino County on its way to the Pacific Ocean. Federal and state laws impose regulatory controls on storm sewer discharges. Municipalities are required to obtain and comply with a federal regulatory permit limiting the quantity and quality of water runoff that can be discharged from these storm sewer systems.

In this instance, the Regional Water Quality Control Board for the Santa Ana Region (the Regional Board) conducted public hearings and then issued a comprehensive 66-page municipal storm sewer permit governing 18 local *1380 public entities. Two permittees, the City of Rancho Cucamonga and the City of Upland, among others, filed an administrative appeal with the State Water Resources Control Board (the State Board.) The State Board summarily dismissed the appeal. The Cities of Rancho Cucamonga and Upland¹ then filed a petition for writ of mandate and complaint against the State Board and the Regional Board.

The trial court sustained without leave to amend the demurrer of the State Board to the entire action. It sustained the demurrer as to four causes of action and granted the motion to strike of the Regional Board. After a hearing, the trial court denied the petition for writ of mandate.

Both procedurally and substantively, the City of Rancho Cucamonga challenges the conditions imposed by the NPDES² Permit and Waste Discharge Requirements (the 2002 permit). It contends the procedure by which the 2002 permit was adopted was not legal, that the 2002 permit's conditions are not appropriate for the area, and that the permit's requirements are too expensive. Because we conclude the permit was properly adopted and its conditions and requirements are appropriate, we reject these contentions.

2. The National Pollutant Discharge Elimination System

California cases have repeatedly explained the complicated web of federal and state laws and regulations concerning water pollution, especially storm sewer discharge into the public waterways. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 619-621, 26 Cal.Rptr.3d 304, 108 P.3d 862 (*Burbank*); *Building Industry Assn. of San Diego County v. State Water Resources Control Board* (2004) 124 Cal.App.4th 866, 872-875, 22 Cal.Rptr.3d 128 (*Building Industry*); *Communities for a Better Environment v. State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, 1092-1094, 1 Cal.Rptr.3d 76 (*Communities*); **453 *WaterKeepers Northern California v. State Water Resources Control Board* (2002) 102 Cal.App.4th 1448, 1451-1453, 126 Cal.Rptr.2d 389 (*WaterKeepers*)).

For purposes of this case, the important point is described by the California Supreme Court in *Burbank*: "Part of the federal Clean Water Act [33 U.S.C. § 1251 et seq.] is the National Pollutant Discharge Elimination System (NPDES), '[t]he primary means' for enforcing effluent limitations and standards under the Clean Water Act. *1381 (*Arkansas v. Oklahoma* [(1992) 503 U.S. 91, 101, 112 S.Ct. 1046, 117 L.Ed.2d 239.]) The NPDES sets out the conditions under which the federal EPA or a state with an approved water quality control program can issue permits for the discharge of pollutants in wastewater. (33 U.S.C. § 1342(a) & (b).) In California, wastewater discharge requirements established by the regional boards are the equivalent of the NPDES permits required by federal law. (§ 13374.)" (*Burbank, supra*, 35 Cal.4th at p. 621, 26 Cal.Rptr.3d 304, 108 P.3d 862.)

California's Porter-Cologne Act (Wat.Code, § 13000 et seq.) establishes a statewide program for water quality control. Nine regional boards, overseen by the State Board, administer the program in their respective regions. (Wat.Code, §§ 13140, 13200 et seq., 13240, and 13301.) Water Code sections 13374 and 13377 authorize the Regional Board to issue federal NPDES permits for five-year periods. (33 U.S.C. § 1342, subd. (b)(1)(B).)

As discussed more fully in part 6 below, the state-issued NPDES permits are subject to the informal hearing procedures set forth for administrative adjudications. (Gov.Code, § 11445.10 et seq.; Cal.Code Regs., tit. 23, § 647 et seq.) The issuance of permits is specifically excluded from the procedures for administrative regulations and rulemaking. (Gov.Code, §§ 11340 et seq., 11352.)

3. Factual and Procedural Background

The Regional Board issued the first NPDES permit for San Bernardino County in 1990. The principal permittee was the San Bernardino Flood Control District (the District). The 1990 permit required the permittees to develop and implement pollution control measures, using "best management practices" and monitoring programs, to eliminate illegal discharges and connections, and to obtain any necessary legal authority to do so. The management programs could be existing or new.

In 1993, the District developed the NPDES Drain Area Management Program (DAMP).

The second NPDES permit was issued in 1996 and was based on the Report of Waste Discharge (ROWD) prepared by the principal permittee and co-permittees, including Rancho Cucamonga. The 1996 permit proposed extending the existing program, which included inspections of industrial and commercial sources; policies for development and redevelopment; better public education; and implementation of a monitoring program. It offered a commitment to reduce pollutants to the "maximum extent practicable."

In 2000, the permittees submitted another ROWD to renew their NPDES permit. The 2000 ROWD proposed continuing to implement and develop water quality management and monitoring programs.

*1382 Based on the 2000 ROWD, the Regional Board staff created five successive drafts of the 2002 permit, incorporating written comments by Rancho Cucamonga and others and comments made during two public workshops. Some of the comments addressed the economic considerations of anticipated prohibitive compliance costs.

The notice of the public hearing to consider adoption of the 2002 permit hearing **454 announced: "relevant Regional Board files are incorporated into the record;" the governing procedures were those for an informal hearing procedure as set forth in "Title 23, California Code of Regulations, Section 647 et seq.;" and "Hearings before the Regional Water Board are not conducted pursuant to Government Code section 11500 et seq.," the alternative formal hearing procedure for administrative adjudication. The notice was mailed to all permittees. The accompanying "fact sheet," which was publicly circulated, offered further information about the conduct and nature of the hearing and the legal and

factual grounds for the Regional Board's recommendation to adopt the 2002 permit.

The informal public hearing was conducted on April 26, 2002. Neither Rancho Cucamonga nor any of the permittees objected to the form or substance of the hearing. Ultimately, after a staff presentation and testimony, including a statement from Rancho Cucamonga's counsel, the Regional Board adopted the 2002 permit. After the State Board dismissed their administrative appeal, Rancho Cucamonga and Upland filed the instant action.

The operative pleading is the second amended petition for writ of mandate and complaint. The petition alleges that the State Board and the Regional Board acted illegally and in excess of their jurisdiction in developing, adopting and implementing the 2002 permit. Based on 26 pages of general allegations, the petition asserts eight causes of action, alleging the State Board and the Regional Board violated sections 13241, 13263, and 13360 of the Water Code (the Porter-Cologne Act); the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.); the California Administrative Procedure Act (Gov.Code, §§ 11340-11529); the California Constitution; and the Federal Clean Water Act; and seeking declaratory and injunctive relief.

The State Board successfully opposed the action on demurrer. The Regional Board eliminated four causes of action, the fourth, fifth, seventh, and eighth by demurrer and motion to strike. On the remaining four causes of action, the trial court found in favor of the Regional Board.

***1383 4. State Board's Demurrer**

1 Rancho Cucamonga maintains the trial court should not have sustained the demurrer of the State Board without leave to amend because the State Board is the ultimate authority on state-issued NPDES permits, and, therefore, was properly joined as a party: "Because the State Board has for all intents and purposes adopted the rules and policies of general application upon which the Permit is based, it is clearly a proper party to this action."

The difficulty with Rancho Cucamonga's theory of liability against the State Board is, to quote Gertrude Stein about the City of Oakland, "There is no there there." (Gertrude Stein, *Everybody's Autobiography*.) In other words, Rancho Cucamonga's allegations against the State Board lack any substance. Instead, Rancho Cucamonga launches an unspecific attack on the State Board without identifying any

particular problems. The petition makes the unexceptional allegation that the State Board formulates general water control policy which it implements and enforces through regional boards. It also alleges the State Board has not complied with the Administrative Procedure Act but it does not identify any objectionable policies or how there is no compliance. Instead the petition complains about a State Board letter directing that all NPDES permits follow consistent principles regarding Standard Urban Storm Water Mitigation **455 Plans. Additionally, the petition maintains the 2002 permit included new reporting requirements and increased costs of compliance.

But the foregoing allegations did not articulate any improper State Board conduct. The 2002 permit, issued by the Regional Board and not by the State Board, is not subject to formal rule-making procedures. (Gov.Code, § 11352, subd. (b).) The State Board's letter, explaining a precedential decision concerning mitigation plans; is not an example of formal rule-making. (Gov.Code, § 11425.60, subd. (b).) By dismissing Rancho Cucamonga's administrative appeal concerning the 2002 permit, the State Board declined to become involved and the Regional Board's decision to issue the permit became final and subject to judicial review. (*People ex rel Cal. Regional Wat. Quality Control Bd. v. Barry* (1987) 194 Cal.App.3d 158, 177, 239 Cal.Rptr. 349.) But the State Board was not made a proper party by reason of its dismissal of the administrative appeal.

Furthermore, even if Rancho Cucamonga had identified any cognizable claim against the State Board, it would have been barred by the 30-day statute of limitations for challenging an improperly adopted State Board regulation or order. (Wat.Code, § 13330; Gov.Code, § 11350.)

*1384 We hold the trial court properly sustained without leave to amend the State Board's demurrer to the second amended petition for writ of mandate and complaint.

5. Standard of Review for Petition for Writ of Mandate

2 In deciding a petition for writ of mandate, the trial court exercises its independent judgment. (Code Civ. Proc., § 1094.5, subd. (c); Wat.Code, § 13330, subd. (d); *Building Industry, supra*, 124 Cal.App.4th at p. 879, 22 Cal.Rptr.3d 128.) But, "[i]n exercising its independent judgment, a trial court must afford a strong presumption of correctness concerning the administrative findings, ... Because the trial court ultimately must exercise its own independent judgment, that court is free to substitute its own findings after first

giving due respect to the agency's findings." (*Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 817-818, 85 Cal.Rptr.2d 696, 977 P.2d 693 (*Fukuda*).

3 4 On appeal, the reviewing court determines whether substantial evidence supports the trial court's factual determinations. (*Fukuda, supra*, 20 Cal.4th at p. 824, 85 Cal.Rptr.2d 696, 977 P.2d 693; *Building Industry, supra*, 124 Cal.App.4th at p. 879, 22 Cal.Rptr.3d 128.) The trial court's legal determinations receive a de novo review with consideration being given to the agency's interpretations of its own statutes and regulations. (*Building Industry, supra*, at p. 879, 22 Cal.Rptr.3d 128; *Nasha L.L.C. v. City of Los Angeles* (2004) 125 Cal.App.4th 470, 482, 22 Cal.Rptr.3d 772.)

6. Rancho Cucamonga's Objections to the Administrative Record and Lack of Notice

5 The notice of the administrative hearing for adoption of the 2002 permit included the statement that the Regional Board's files would be incorporated as part of the record. Before trial on the writ petition, Rancho Cucamonga attempted to raise an omnibus objection to the entire administrative record and a specific objection to four documents, three studies about marine pollution and one economic study. The trial court ruled the objections had been waived by not making them before or at the time of the hearing. Applying the presumption of administrative regularity, we affirm the trial court's evidentiary ruling. (*Mason v. Office of Administrative **456 Hearings* (2001) 89 Cal.App.4th 1119, 1131, 108 Cal.Rptr.2d 102.)

The reasons given by Rancho Cucamonga as to why the trial court should have sustained its objections to all or part of the administrative record are that it did not waive its objections to the record because Rancho Cucamonga did not know the hearing was adjudicative; the Regional Board did not provide *1385 notice of an informal hearing (Gov.Code, § 11445.30); and Rancho Cucamonga never had an opportunity to object to the administrative record.

6 As noted previously, Government Code section 11352, subdivision (b), makes the issuance of an NPDES permit exempt from the rulemaking procedures of the Administrative Procedure Act. Permit issuance is a quasi-judicial, not a quasi-legislative, rule-making proceeding: "The exercise of discretion to grant or deny a license, permit or other type of application is a quasi-judicial function." (*Sommerfeld v. Helmick* (1997) 57 Cal.App.4th 315, 320, 67 Cal.Rptr.2d 51;

City of Santee v. Superior Court (1991) 228 Cal.App.3d 713, 718, 279 Cal.Rptr. 22.)

Instead, the Regional Board correctly followed the administrative adjudication procedures (Gov.Code, § 11445.10 et seq.) and the companion regulations at California Code of Regulations, Title 23, sections 647-648.8 for informal adjudicative public hearings. These procedures were announced in the notice of hearing which also stated that Government Code section 11500 et seq., governing formal administrative adjudication hearings, would not apply, thus satisfying Government Code section 11445.30 requiring notice of an informal hearing procedure. At the time of the hearing, Rancho Cucamonga did not object to the informal procedure. Rancho Cucamonga's effort to argue that federal notice requirements (40 C.F.R. § 124.8, subd. (b)(6)(ii) (2005)) should also have been followed fails because this involved a state-issued NPDES permit adopted according to California procedures.

Because Rancho Cucamonga was given notice that the hearing on the permit would proceed as an informal administrative adjudication, it cannot successfully argue it was relieved of the obligation to object to the administrative record at the time of the hearing. An informal administrative adjudication contemplates liberality in the introduction of evidence. (Cal. Code Regs., tit. 23, §§ 648, subd. (d) and 648.5.1.) If Rancho Cucamonga wished to object to the informal hearing procedures, including the liberal introduction of evidence, it should have raised its objections as provided by statute and regulation before or at the time of the hearing (Gov.Code, §§ 11445.30, 11445.40, and 11445.50; Cal. Code Regs., tit. 23, § 648.7), not a year later in the subsequent civil proceeding.

7. Economic Considerations for Issuance of NPDES Permit

Rancho Cucamonga's next assignment of error is that the Regional Board failed to consider the economic impact of the requirements of the 2002 permit by not conducting a cost-benefit analysis. Rancho Cucamonga relies on the California Supreme Court's *Burbank* opinion, in which the court held: "When ... a regional board is considering whether to make the pollutant restrictions in a wastewater discharge permit more stringent than federal law *1386 requires, California law allows the board to take into account economic factors, including the wastewater discharger's cost of compliance." (*Burbank, supra*, 35 Cal.4th at p. 618, 26 Cal.Rptr.3d 304, 108 P.3d 862.) Rancho Cucamonga contends that the 2002 permit

exceeds federal requirements and that, therefore, this case should be remanded for a consideration of **457 economic factors. (See *ibid.*; Wat.Code, § 13241, subd. (d).)

The two problems with this argument are the trial court found there was no evidence that the 2002 permit exceeded federal requirements and Rancho Cucamonga does not explain now how it does so. There was also evidence that the 2002 permit was based on a fiscal analysis and a cost-benefit analysis. In the absence of the foundational predicate and in view of evidence that cost was considered, Rancho Cucamonga's contention on this point fails.

7 We also reject Rancho Cucamonga's related procedural argument that the Regional Board's motion to strike was impermissible as piecemeal adjudication. (*Regan Roofing v. Superior Court* (1994) 24 Cal.App.4th 425, 432-436, 29 Cal.Rptr.2d 413, *Lilienthal & Fowler v. Superior Court* (1993) 12 Cal.App.4th 1848, 1851-1855, 16 Cal.Rptr.2d 458.) It is well recognized a court may strike all or part of a pleading as it did in this instance. (Code Civ. Proc., §§ 431.10 and 436; *PH II, Inc. v. Superior Court* (1995) 33 Cal.App.4th 1680, 1682-1683, 40 Cal.Rptr.2d 169.)

8. Substantial Evidence

8 Rancho Cucamonga also challenges the trial court's independent factual determination that sufficient evidence supports the findings of the Regional Board. Rancho Cucamonga's main contention is that the 2002 permit was not distinctively crafted for San Bernardino County but, instead, copied a similar permit for other counties without identifying any particular water quality impairment in San Bernardino County caused by the permittees. In other words, no evidence in the record supports issuance of the 2002 permit and the trial court did not identify any such evidence in its statement of decision.

One problem with Rancho Cucamonga's foregoing argument is that the Clean Water Act requires an NPDES permit to be issued for *any* storm sewer discharge, whether there is any actual impairment in a particular region. (33 U.S.C. § 1342; *Communities, supra*, 109 Cal.App.4th at pp. 1092-1093, 1 Cal.Rptr.3d 76.) Therefore, Rancho Cucamonga's contention that the permit fails to identify impaired water bodies in the region is beside the point.

In its statement of decision, the trial court discussed the inadequacy of the arguments and evidence cited by Rancho Cucamonga and concluded: "The San Bernardino Permit

is based in part on the Basin Plan for this region. It is *1387 also based on the permittees' own reports and monitoring within this region.... It incorporates the permittees' management program, which is unique to these cities and county." The trial court included a citation to the 1993 DAMP report's "Geographic Description of the Drainage Area," which discusses the specific conditions present in San Bernardino County.

On appeal, Rancho Cucamonga faults the trial court for not presenting a more detailed description of the evidence supporting the issuance of the permit. We do not think the trial court, or this court, must bear that burden.

9 First, "[a]n agency may ... rely upon the opinion of its staff in reaching decisions, and the opinion of staff has been recognized as constituting substantial evidence. (*Coastal Southwest Dev. Corp. v. California Coastal Zone Conservation Com.* (1976) 55 Cal.App.3d 525, 535-536, 127 Cal.Rptr. 775.)" (*Browning-Ferris Industries v. City Council* (1986) 181 Cal.App.3d 852, 866, 226 Cal.Rptr. 575.) Here the Regional Board adopted the recommendation of its staff in issuing the permit. And, as the record shows, the staff's recommendation was based on the previous 1990 and 1996 permits, the 1993 DAMP **458 report and the 2000 ROWD, the permittees' application for renewal of the 1996 permit, as well as more general water quality factors. The evidence contradicts Rancho Cucamonga's assertion, that "the Regional Board simply copied verbatim the NPDES Permit for North Orange County, a coastal region with markedly different water quality conditions and problems."

As part of the trial court's consideration of the petition for writ of mandate, Rancho Cucamonga and the Regional Board directed the court to review specific items of evidence contained in the administrative record. In its opposing brief, the Regional Board offered a detailed account of the evidence supporting the issuance of the permit. The trial court indicated it had reviewed the parties' submissions before ruling. It discussed the evidence at the hearing on the petition and referred to it in its statement of decision. (*Lala v. Maiorana* (1959) 166 Cal.App.2d 724, 731, 333 P.2d 862.) Rancho Cucamonga had the burden of showing the Board abused its discretion or its findings were not supported by the facts. (*Building Industry, supra*, 124 Cal.App.4th at pp. 887-888, 22 Cal.Rptr.3d 128.) To the extent it attempted to do so at the trial court level, it was not successful.

This court has independently reviewed the record with particular attention to the evidence as emphasized by the

parties. We do not, however, find it incumbent upon us or the trial court to review the many thousands of pages submitted on appeal and identify the particular evidence that constitutes substantial evidence. Instead, we deem the trial court's findings sufficient and not affording any grounds for reversal. (*Building Industry, supra*, 124 Cal.App.4th at p. 888, 22 Cal.Rptr.3d 128; see *Weisz Trucking Co., Inc. v. Emil R. Wohl *1388 Construction* (1970) 13 Cal.App.3d 256, 264, 91 Cal.Rptr. 489, citing *Perry v. Jacobsen* (1960) 184 Cal.App.2d 43, 50, 7 Cal.Rptr. 177.)

9. Safe Harbor Provision

10 As it did repeatedly below, Rancho Cucamonga maintains the 2002 permit violates section 402(k) of the Clean Water Act (33 U.S.C. § 1342, subd. (k)), because the permit does not include "safe harbor" language, providing that, if a permittee is in full compliance with the terms and conditions of its permit, it cannot be found in violation of the Clean Water Act. (*United States Public Interest Research Group v. Atlantic Salmon of Maine, LLC* (1st Cir.2003) 339 F.3d 23, 26; *EPA v. State Water Resources Control Bd.* (1976) 426 U.S. 200, 205, 96 S.Ct. 2022, 48 L.Ed.2d 578.) The trial court found there was no statutory right to a "safe harbor" provision to be included as the term of the permit. We agree.

This seems like much ado about nothing because 33 U.S.C. § 1342, subdivision (k), already affords Rancho Cucamonga the protection it seeks: "Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 1319 and 1365 of this title, with sections 1311, 1312, 1316, 1317, and 1343 of this title, except any standard imposed under section 1317 of this title for a toxic pollutant injurious to human health." Rancho Cucamonga does not cite any persuasive authority as to why this statutory protection had to be duplicated as a provision in the 2002 permit.

Furthermore, the 2002 permit complied with the State Board's Water Quality Order No. 99-05, a precedential decision requiring NPDES permits to omit "safe harbor" language used in earlier permits. A permit without "safe harbor" language was upheld in ***459 Building Industry, supra*, 124 Cal.App.4th at p. 877, 22 Cal.Rptr.3d 128. The trial court did not err.

10. Maximum Extent Practicable

Rancho Cucamonga protests that the 2002 permit's discharge limitations/prohibitions exceed the federal requirement that storm water dischargers should "reduce the discharge of pollutants to the maximum extent practicable." (33 U.S.C. § 1342, subd. (p)(3)(B)(iii).) The trial court, however, found there was no evidence presented that the 2002 permit exceeded federal requirements. Because there is no evidence, the issue presented is hypothetical and, therefore, premature. (*Building Industry, supra*, 124 Cal.App.4th at p. 890, 22 Cal.Rptr.3d 128.)

Additionally, as Rancho Cucamonga recognizes, *Building Industry* rejected the contention that a "regulatory permit violates federal law because it allows the Water Boards to impose municipal storm sewer control measures more **1389* stringent than a federal standard known as 'maximum extent practicable.' [Citation.] [Fn. omitted.] [W]e ... conclude the Water Boards had the authority to include a permit provision requiring compliance with state water quality standards." (*Building Industry, supra*, 124 Cal.App.4th at p. 871, 22 Cal.Rptr.3d 128.) The *Burbank* case, allowing for consideration of economic factors when federal standards are exceeded, does not alter the analysis in this case where there was no showing that federal standards were exceeded and where there was evidence that economic factors were considered. Furthermore, like the permit in *Building Industry*, the 2002 permit contemplates controlling discharge of pollutants to the maximum extent practicable through a "cooperative iterative process where the Regional Water Board and Municipality work together to identify violations of water quality standards." (*Building, supra*, at p. 889, 22 Cal.Rptr.3d 128.) The 2002 permit does not exceed the maximum extent practicable standard.

11. The Requirements of the 2002 Permit

11 Rancho Cucamonga lastly complains the requirements of the 2002 permit are "overly prescriptive," illegally dictating the manner of compliance and improperly delegating to the permittees the inspection duties of the State Board and the Regional Board. Rancho Cucamonga's arguments contradict the meaning and spirit of the Clean Water Act.

In creating a permit system for dischargers from municipal storm sewers, Congress intended to implement actual programs. (*Natural Resources Defense Council, Inc. v. Costle* (D.C.Cir.1977) 568 F.2d 1369, 1375.) The Clean Water Act authorizes the imposition of permit conditions, including: "management practices, control techniques and

system, design and engineering methods, and such other provisions as the Administrator of the State determines appropriate for the control of such pollutants.” (33 U.S.C. § 1342, subd. (p)(3)(B)(iii).) The Act authorizes states to issue permits with conditions necessary to carry out its provisions. (33 U.S.C. § 1342, subd. (a)(1).) The permitting agency has discretion to decide what practices, techniques, methods and other provisions are appropriate and necessary to control the discharge of pollutants. (*NRDC v. EPA* (9th Cir.1992) 966 F.2d 1292, 1308.) That is what the Regional Board has created in the 2002 permit.

Rancho Cucamonga's reliance on Water Code section 13360 is misplaced because that code section involves enforcement and implementation of state water quality law, (Wat.Code, § 13300 et seq.) not compliance with the Clean Water Act (Wat.Code, § 13370 et seq.) The federal law **460 preempts the state law. (*Burbank, supra*, 35 Cal.4th at p. 626, 26 Cal.Rptr.3d 304, 108 P.3d 862.) The Regional Board must comply with federal law requiring detailed conditions for NPDES permits.

*1390 Furthermore, the 2002 permit does afford the permittees discretion in the manner of compliance. It is the permittees who design programs for compliance, implementing best management practices selected by the permittees in the DAMP report and approved by the Regional Board. Throughout the permit, the permittees are granted considerable autonomy and responsibility in maintaining and enforcing the appropriate legal authority; inspecting and maintaining their storm drain systems according to criteria they develop; establishing the priorities for their own inspection requirements; and establishing programs for new development. The development and implementation of programs to control the discharge of pollutants is left largely to the permittees.

More particularly, we agree with the Regional Board that the permit properly allocated some inspection duties to the permittees. As part of their ROWD application for a permit, the permittees proposed to “Conduct Inspection, Surveillance, and Monitoring. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal storm drain system.” The ROWD also discussed continuing existing inspection programs.

Footnotes

1 Upland is not a party to this appeal.

Water Code section 13383 provides that as part of compliance with the Clean Water Act, the Regional Board may establish inspection requirements for any pollutant discharger. Federal law, either expressly or by implication, requires NPDES permittees to perform inspections for illicit discharge prevention and detection; landfills and other waste facilities; industrial facilities; construction sites; certifications of no discharge; non-stormwater discharges; permit compliance; and local ordinance compliance. (40 C.F.R. 122.26, subds. (d), (g); 33 U.S.C. § 1342, subd. (p)(3)(B)(ii).) Permittees must report annually on their inspection activities. (40 C.F.R. § 122.42, subd. (c)(6) (2005).)

Rancho Cucamonga claims it is being required to conduct inspections for facilities covered by other state-issued general permits. Rancho Cucamonga and the other permittees are responsible for inspecting construction and industrial sites and commercial facilities within their jurisdiction for compliance with and enforcement of local municipal ordinances and permits. But the Regional Board continues to be responsible under the 2002 NPDES permit for inspections under the general permits. The Regional Board may conduct its own inspections but permittees must still enforce their own laws at these sites. (40 C.F.R. § 122.26, subd. (d)(2) (2005).)

*1391 12. Disposition

Rancho Cucamonga is the only of the original 18 permittees still objecting to the 2002 NPDES permit. It has not successfully demonstrated that substantial evidence does not support the trial court's factual determinations or the trial court erred in its interpretation and application of state and federal law.

We affirm the judgment and order the prevailing parties to recover their costs on appeal.

HOLLENHORST, Acting P.J., and RICHLI, J., concur.

Parallel Citations

135 Cal.App.4th 1377, 36 Env'tl. L. Rep. 20,026, 06 Cal. Daily Op. Serv. 845, 06 Cal. Daily Op. Serv. 1699, 2006 Daily Journal D.A.R. 1126

City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa..., 135 Cal.App.4th 1377 (2006)

38 Cal.Rptr.3d 450, 36 Env'tl. L. Rep. 20,026, 06 Cal. Daily Op. Serv. 845, 06 Cal. Daily Op. Serv. 1699...

2 The National Pollutant Discharge Elimination System.

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Attachment 25

826 P.2d 730
Supreme Court of California,
In Bank.

FARMERS INSURANCE
EXCHANGE et al., Petitioners,

v.

The SUPERIOR COURT of Los
Angeles County, Respondent.
The PEOPLE, Real Party in Interest.

No. S016912. April 6, 1992.

People, through Attorney General, brought suit against insurers under Unfair Business Practices Act for refusal to offer good driver discount policies to all eligible applicants. The Superior Court, Los Angeles County, No. C753955, Robert M. Mallano, J., found that People were barred from proceeding for failure to exhaust administrative remedies available under Insurance Code but that People could proceed under Business and Professions Code despite separate statutory enforcement scheme. Writ of mandate was sought. The Court of Appeal affirmed. Appeal was taken. The Supreme Court, Lucas, C.J., held that: (1) absent legislation clearly addressing whether court could exercise discretion under primary jurisdiction doctrine, court could exercise that discretion and decline to hear suit until administrative process had been invoked and completed, and (2) prior resort to administrative process was required to determine whether insurers' refusal to offer good driver discount policy violated Business and Professions Code.

Judgment of Court of Appeal reversed with directions.

Mosk, J., filed dissenting opinion.

Attorneys and Law Firms

***489 *381 **732 Barger & Wolen, Royal F. Oakes, Larry M. Golub, Linda C. Johnson and Richards D. Barger, Los Angeles, for petitioners.

No appearance for respondent.

John K. Van de Kamp and Daniel E. Lungren, Attys. Gen., Andrea Sheridan Ordin, Chief Asst. Atty. Gen., Michael J. Strumwasser, Fredric D. Woocher and Herschel T. Elkins, Asst. Attys. Gen., Albert Norman Sheldon, Ronald A. Reiter and M. Howard Wayne, Deputy Attys. Gen., for real party in interest.

Gary T. Yancey, Dist. Atty., Contra Costa, Gary E. Koepfel, Deputy Dist. Atty., Martinez, Gail K. Hillebrand, Nettie Y. Hoge, San Francisco, Paul E. Lee, Los Angeles, and Robert Fellmeth, San Diego, as amici curiae on behalf of real party in interest.

Opinion

LUCAS, Chief Justice.

The People, through the Attorney General (real party in interest), filed suit against various insurers (petitioners) under the Unfair Practices Act (Bus. & Prof.Code, § 17000 et seq.). We granted review to decide whether this judicial action should be stayed under the doctrine of "primary jurisdiction" pending administrative action by the Commissioner of the Department of Insurance (hereafter sometimes the Commissioner). (See Ins.Code, § 1858 et seq.; all further statutory references are to this code unless otherwise indicated.)

We conclude that in the absence of legislation clearly addressing whether a court may exercise discretion under the primary jurisdiction doctrine, a court may exercise such discretion and may decline to hear a suit until the administrative process has been invoked and completed. We hold that prior resort to the administrative process is required in the circumstances of this case and that the trial court abused its discretion in concluding otherwise.

I. Facts and Procedure

The People filed a two-count complaint alleging petitioners violated sections 1861.02 and 1861.05, enacted by the voters in November 1988 as part of Proposition 103, by refusing to offer a "Good Driver Discount policy" to all eligible applicants.

In their first cause of action, the People claim that since November 1989, petitioners ***490 **733 have violated the above provisions by: (i) refusing to offer and *382 sell a Good Driver Discount policy to any person who meets the standards of section 1861.025 (see § 1861.02, subd. (b)(1)); (ii) refusing to charge persons who qualify for the Good Driver Discount policy a rate "at least 20% below the rate the insured would otherwise have been charged for the same coverage" (see § 1861.02, subd. (b)(2)); (iii) unlawfully using the absence of insurance as a criterion for determining eligibility for a Good Driver Discount policy, and generally, for the setting of automobile insurance rates and premiums

(see § 1861.02, subd. (c)); and (iv) “unfairly discriminating in eligibility and rates for insurance for persons who qualify under the statutory criteria for a Good Driver Discount policy” (see § 1861.05, subd. (a)).

Under the first cause of action the People seek an order pursuant to Code of Civil Procedure section 526, enjoining petitioners from violating section 1861.02, subdivisions (b) (1), (b)(2), and (c), and section 1861.05, subdivision (a).

The second cause of action—which is the subject of this proceeding—incorporates the allegations of the first count, and asserts: “The violations of sections 1861.02 and 1861.05 as set forth above constitute unlawful and unfair business practices, in violation of Business and Professions Code section 17200.”

Under the second cause of action the complaint seeks the injunctive relief described above pursuant to Business and Professions Code section 17204, a \$2,500 civil penalty against each petitioner for each violation of law pursuant to Business and Professions Code section 17206, and “such other relief as this Court deems just and proper.”

1 Petitioners demurred to both causes of action on the ground, inter alia, that the People’s suit was precluded by their failure to pursue and exhaust administrative remedies. The trial court sustained the demurrer as to the first cause of action (the Insurance Code claim), concluding that under *County of Los Angeles v. Farmers Ins. Exchange* (1982) 132 Cal.App.3d 77, 85-87, 182 Cal.Rptr. 879, the People were barred from proceeding because they failed to exhaust administrative remedies available under the Insurance Code. The People do not contest this ruling.¹

As to the second cause of action (the Business and Professions Code claim), however, the court overruled the demurrer, concluding that under *383 *People v. McKale* (1979) 25 Cal.3d 626, 159 Cal.Rptr. 811, 602 P.2d 731, the People may proceed under the Business and Professions Code “even though there is a separate statutory scheme for enforcement of [Insurance Code] section 1861.02.”

Petitioners sought a writ of mandate in the Court of Appeal challenging the propriety of this latter ruling. In an unpublished opinion, the Court of Appeal agreed with the trial court. It reasoned that “exhaustion of administrative remedies” is not required before an action under section 17200 of the Business and Professions Code may be prosecuted because (i) the People’s second cause of action seeks a remedy that is “merely cumulative” to administrative

remedies sought in the first count, and (ii) the courts can more promptly resolve the issues in this case than can the Insurance Commissioner.

As noted, we conclude prior resort to the administrative process is appropriate in these circumstances, and we therefore reverse the decision of the Court of Appeal.

II. The Statutory Schemes

A. The Unfair Practices Act

2 The Unfair Practices Act is found in ***491 **734 Business and Professions Code, section 17000 et seq. Section 17200 of the Business and Professions Code broadly defines “unfair competition” as, inter alia, any “unlawful, unfair or fraudulent business practice....” “Unlawful business activity” proscribed under section 17200 includes “‘anything that can properly be called a business practice and that at the same time is forbidden by law.’” (*Barquis v. Merchants Collection Assn.* (1972) 7 Cal.3d 94, 113, 101 Cal.Rptr. 745, 496 P.2d 817 [hereafter *Barquis*].) As the People observe in their brief on the merits, “[i]n essence, an action based on Business and Professions Code section 17200 to redress an unlawful business practice ‘borrows’ violations of other laws and treats these violations, when committed pursuant to business activity, as unlawful practices independently actionable under section 17200 et seq. and subject to the distinct remedies provided thereunder.”

Section 17205 of the Business and Professions Code states: “Unless otherwise expressly provided, *the remedies or penalties provided by this chapter are cumulative to each other and to the remedies or penalties available under all other laws of this state.*” (Italics added.) Section 17204 of the Business and Professions Code authorizes the Attorney General to prosecute an action to enjoin violations of section 17200 of the Business and Professions Code. Finally, Business and Professions Code section 17206 provides for a \$2,500 civil penalty for each violation of section 17200.

*384 The People’s complaint under section 17200 of the Business and Professions Code is grounded on asserted violations of four provisions of the McBride-Grunsky Insurance Regulatory Act of 1947 (McBride Act) (Stats.1947, ch. 805, §§ 1-7, pp. 1896-1908), which is set out in the Insurance Code, division 1, part 2, chapter 9. We will briefly outline the relevant provisions of the McBride Act before analyzing the People’s action under the Business and Professions Code.

B. The McBride Act

As modified by the voters through the initiative process, and by the Legislature through various amendments, the McBride Act presently is found in sections 1851 through 1861.16 of the Insurance Code.

1. Provisions for Administrative Hearings and Judicial Review

Section 1858 establishes an administrative scheme under which "[a]ny person aggrieved by any rate charged, rating plan, rating system, or underwriting rule ... may" file a complaint with the Insurance Commissioner. (*Id.*, subd. (a).)² If, after considering the insurer's response, the commissioner finds the complaint states "probable cause" of a violation of the McBride Act, the commissioner "shall proceed as provided in Section 1858.1." (§ 1858, subd. (c).)

Section 1858.1 sets out procedures for the commissioner's investigation and resolution of the complaint. If the commissioner determines there is "good cause" to believe an insurer's rating scheme fails to comply with the requirements of the chapter, he or she "shall give notice in writing to that insurer, ... stating therein in what manner and to what extent that noncompliance is alleged to exist and specifying therein a reasonable time ... in which that noncompliance may be corrected, and specifying therein the amount of any penalty that may be due..." (*Id.*, 1st par.) The section also sets out procedures to be followed by an insurer to contest the allegation of noncompliance, or, inter alia, to enter into a consent order. (*Id.*, 2d par.)

***492 **735 Section 1858.2 sets out procedures for public hearings on disputed issues and requires the commissioner to issue a decision within 60 days after *385 submission following a hearing. Sections 1858.3 through 1858.5 concern powers granted the commissioner, monitoring of complaints, and suspension of an insurer's license for noncompliance with the commissioner's orders. Sections 1858.07 and 1859.1 set out monetary penalties for an insurer's failure to comply with statutory rate-setting provisions, or the commissioner's orders.

Finally, section 1858.6 provides for judicial review following "[a]ny finding, ... ruling or order made by the commissioner under this chapter ... in accordance with the provisions of the Code of Civil Procedure."

2. Relevant Substantive Provisions

Various substantive sections of the McBride Act were significantly augmented and altered by the voters in November 1988. (See *CalFarm Ins. Co. v. Deukmejian* (1989) 48 Cal.3d 805, 258 Cal.Rptr. 161, 771 P.2d 1247.) The following sections are relevant here:

Section 1861.02, subdivision (b)(1) (hereafter section 1861.02(b)(1)), provides, inter alia, that all persons who meet specified criteria set out in section 1861.025 "shall be qualified to purchase a Good Driver Discount policy from the insurer of his or her choice." Section 1861.02, subdivision (b) (2) (hereafter section 1861.02(b)(2)), requires that the "rate charged for a Good Driver Discount policy shall ... be at least 20 #low the rate the insured would otherwise have been charged for the same coverage." Under subdivision (c) of section 1861.02 (hereafter section 1861.02(c)), "[t]he absence of prior automobile insurance coverage, in and of itself, shall not be a criterion for determining eligibility for a Good Driver Discount policy, or generally for automobile rates, premiums, or insurability." Finally, section 1861.05, subdivision (a) (hereafter section 1861.05(a)) states, "[n]o rate shall be approved or remain in effect which is ... unfairly discriminatory or otherwise in violation of this chapter." (As noted above, the People claim petitioners have violated all four provisions since November 1989.)³

The voters in 1988 also repealed various sections that had previously exempted the business of insurance from this state's antitrust laws (see *386 former §§ 1850-1850.3, 1853, 1853.6, 1853.7), and added section 1861.03, subdivision (a), which provides: "The business of insurance shall be subject to the laws of California applicable to any other business, including, but not limited to, ... the antitrust and unfair business practices laws (Parts 2 (commencing with section 16600) and 3 (commencing with Section 17500) of Division 7 of the Business and Professions Code)." Part 2 of the Business and Professions Code contains section 17200, the basis of the People's action in this case.

III. The Primary Jurisdiction Doctrine

A. Development of the Doctrine

The judicially created doctrine of "primary jurisdiction" (also referred to as the doctrine of "prior resort"⁴ or "preliminary jurisdiction"⁵), originated in *Texas & Pac. Ry. v. Abilene Cotton Oil Co.* (1907) 204 U.S. 426, 27 S.Ct. 350, 51

L.Ed. 553 (hereafter *Abilene*), and as explained below, most ***493 **736 of the development of the doctrine has occurred in the federal courts.

1. *Abilene*

In *Abilene, supra*, 204 U.S. 426, 27 S.Ct. 350, a shipper sued a railroad in state court under the common law to recover alleged unreasonable amounts charged for transporting interstate freight. Such common law suits had been regularly entertained before enactment of the Interstate Commerce Act (Commerce Act) and creation of the Interstate Commerce Commission (ICC) in 1887. (204 U.S. at p. 436, 27 S.Ct. at p. 353.) Under the Commerce Act, Congress granted the ICC power to hear such complaints by shippers, and to order reparations to those injured. (*Id.*, at p. 438, 27 S.Ct. at p. 354.) Despite provisions of the Commerce Act allowing a litigant to elect between administrative enforcement of statutory rights and judicial enforcement of common law rights,⁶ the high court declined to allow the common law suit in the first instance. Instead, it ruled that in order to promote uniformity and *387 consistency of rate regulations, the shipper “must ... primarily invoke redress through the Interstate Commerce Commission....” (*Id.*, at p. 448, 27 S.Ct. at p. 358.) The court explained that “if, without previous action by the Commission, power might be exerted by courts and juries generally to determine the reasonableness of an established rate, it would follow that unless all courts reached an identical conclusion a uniform standard of rates in the future would be impossible, as the standard would fluctuate and vary, depending on the divergent conclusions reached as to reasonableness by the various courts called upon to consider the subject as an original question.” (*Id.*, at p. 440, 27 S.Ct. at p. 355.)

The court concluded that the act should be construed to allow only those judicial actions that seek “redress of such wrongs as can, consistently with the context of the act, be redressed by courts without previous action by the Commission, and, therefore, does not imply the power in a court to primarily hear complaints concerning wrongs of the character of the one here complained of.” (*Abilene, supra*, 204 U.S. at p. 442, 27 S.Ct. at p. 356; see also *id.*, at p. 446, 27 S.Ct. at p. 357.)⁷

2. *Merchants*

The doctrine of *Abilene, supra*, 204 U.S. 426, 27 S.Ct. 350, was refined and clarified in *Merchants, supra*, 259 U.S. 285, 42 S.Ct. 477, another case in which a shipper attempted to press suit against a railway to recover asserted overcharges.

Justice Brandeis, speaking for the court, allowed the state court suit to proceed because the issue presented in that case—i.e., the proper interpretation of a tariff—was one of ***494 **737 law and neither involved disputed facts, nor required the exercise of expertise possessed by the ICC. The court explained, “Preliminary resort to the Commission [is necessary when] ... the enquiry is essentially one of fact and of discretion in technical matters; and uniformity can be secured only if its determination is left to the Commission. Moreover, *388 that determination is reached ordinarily upon voluminous and conflicting evidence, for the adequate appreciation of which acquaintance with many intricate facts of transportation is indispensable; and such acquaintance is commonly to be found only in a body of experts. But what construction shall be given to a railroad tariff presents ordinarily a question of law which does not differ in character from those presented when the construction of any other document is in dispute.” (*Id.*, at p. 291, 42 S.Ct. at p. 479.)

3. *Western Pacific*

In a third railroad shipping case, *United States v. Western Pac. R. Co.* (1956) 352 U.S. 59, 77 S.Ct. 161, 1 L.Ed.2d 126 (hereafter *Western Pacific*), the shipper (the United States government) filed suit in the Court of Claims to recover alleged overcharges. The issue presented was similar to that in *Merchants, supra*, 259 U.S. 285, 42 S.Ct. 477, i.e., the construction of a railroad tariff. Specifically, the question posed was whether shipments of steel bomb cases filled with napalm gel should be classified as “incendiary bombs” (subject to a high first-class tariff rate) or merely “gasoline in steel drums” (subject to a lower, fifth-class rate).

The high court considered the factors articulated in *Abilene, supra*, 204 U.S. 426, 27 S.Ct. 350, and *Merchants, supra*, 259 U.S. 285, 42 S.Ct. 477, i.e., (i) “the desirable uniformity which would obtain if initially a specialized agency passed on certain types of administrative questions” (*Western Pacific, supra*, 352 U.S. at p. 64, 77 S.Ct. at p. 165), and (ii) the need to secure “the expert and specialized knowledge of the agencies involved.” (*Ibid.*) The court asserted that the term “incendiary bomb,” as used in the tariff regulations, posed a question of construction that “involves factors ‘the adequate appreciation of which’ presupposes an ‘acquaintance with many intricate facts of transportation’ ” possessed by the ICC. (*Western Pacific, supra*, 352 U.S. at p. 66, 77 S.Ct. at p. 166, quoting *Merchants, supra*, 259 U.S. at p. 291, 42 S.Ct. at p. 479.) Accordingly, the court concluded, “in the circumstances here presented the question of tariff construction, as well as that of the reasonableness of the tariff as applied, was within

the exclusive primary jurisdiction of the Interstate Commerce Commission.” (*Western Pacific, supra*, 352 U.S. at p. 63, 77 S.Ct. at p. 165.)

4. *Nader*

A more recent high court case illustrates both procedural and substantive aspects of the primary jurisdiction doctrine. In *Nader v. Allegheny Airlines* (1976) 426 U.S. 290, 96 S.Ct. 1978, 48 L.Ed.2d 643 (hereafter *Nader*), the plaintiff filed a common law tort action for fraudulent misrepresentation *389 against an airline that sold him a confirmed ticket on an overbooked flight, causing the plaintiff to miss his flight. Like the statute at issue in *Abilene, supra*, 204 U.S. 426, 27 S.Ct. 350, the relevant section of the Federal Aviation Act (49 U.S.C. § 1381) provided, “ [n]othing contained in this chapter shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this chapter are in addition to such remedies.” (*Nader, supra*, 426 U.S. at p. 298, 96 S.Ct. at p. 1984, quoting that act; see *ante*, p. 493, fn. 6 of 6 Cal.Rptr.2d, p. 736, fn. 6 of 826 P.2d.)

The United States District Court entertained the suit and entered judgment for the plaintiff, but the United States Court of Appeals for the District of Columbia, applying the primary jurisdiction doctrine, reversed and remanded for administrative findings on, inter alia, the common law claim. It took judicial notice that the Civil Aeronautics Board (Board) was then considering the same challenges to carriers' overbooking practices in an ongoing rulemaking proceeding, and held that before the plaintiff would be allowed to proceed with his misrepresentation action, the ***495 **738 Board should be allowed to consider whether the challenged practices fell within its power to investigate complaints and issue cease-and-desist orders. (*Nader v. Allegheny Airlines, Inc.* (D.C.Cir.1975) 512 F.2d 527, 546.) Accordingly, the court of appeals instructed the district court to *stay* further action on the plaintiff's misrepresentation claim pending the outcome of the rulemaking proceeding. (*Id.*, at p. 552.)⁸

The high court reversed. Initially, it observed that there was no “irreconcilable conflict between the statutory scheme and the persistence of common-law remedies.” (*Nader, supra*, 426 U.S. 290, 299, 96 S.Ct. 1978, 1984) and that “[u]nder the circumstances, the common-law action and the statute ... may coexist.” (*Id.*, at p. 300, 96 S.Ct. at p. 1985.)

The court then proceeded to apply the primary jurisdiction doctrine. It noted that under the administrative scheme at issue, individual consumers were “not even entitled” to

initiate proceedings before the Board. (*Nader, supra*, 426 U.S. at p. 302, 96 S.Ct. at p. 1986.) The fact that the plaintiff in the case before it had no authority to bring an administrative action, *390 however, did not resolve the court's primary jurisdiction inquiry. Instead, the court relied on *Western Pacific, supra*, 352 U.S. 59, 77 S.Ct. 161, and other primary jurisdiction cases, in determining whether “considerations of uniformity in regulation and of technical expertise ... call for prior reference to the Board.” (*Nader, supra*, 426 U.S. at p. 304, 96 S.Ct. at p. 1987.) It concluded the proposed misrepresentation action posed no challenge to uniformity of regulation (*id.*, at pp. 304-305, 96 S.Ct. at p. 1987), and that “[t]he standards to be applied in an action for fraudulent misrepresentation are within the conventional competence of the courts, and the judgment of a technically expert body is not likely to be helpful in the application of these standards to the facts of this case.” (*Id.*, at pp. 305-306, 96 S.Ct. at pp. 1987-1988.) Accordingly, the court held prior resort to the administrative process was not required, and hence the plaintiff's “tort action should not be stayed pending reference to the Board....” (*Id.*, at p. 307, 96 S.Ct. at p. 1988.)

B. The Primary Jurisdiction and Exhaustion Doctrines Compared

Petitioners assert throughout their briefs that the People should be required to “exhaust” their administrative remedies before pursuing their civil action in this case. As suggested above and explained below, the applicable principle in this case is the primary jurisdiction doctrine, not the exhaustion doctrine.

Petitioners' mischaracterization is understandable because courts have often confused the two closely related concepts (see, e.g., 2 Cooper, *supra*, at pp. 572-573). “Both are essentially doctrines of comity between courts and agencies. They are two sides of the timing coin: Each determines whether an action may be brought in a court or whether an agency proceeding, or further agency proceeding, is necessary.” (Schwartz, *Administrative Law* (1984) § 8.23, p. 485.)

3 In *Western Pacific, supra*, 352 U.S. 59, 77 S.Ct. 161, the high court explained: “ ‘Exhaustion’ applies where a claim is cognizable in the first instance by an administrative agency alone; judicial interference is withheld until the administrative process has run its course. ‘Primary jurisdiction,’ on the other hand, applies where a claim is originally cognizable in the courts, and comes into play whenever enforcement of the claim requires the resolution

of issues which, under a regulatory ***496 **739 scheme, have been placed within the special competence of an administrative body; in such a case the judicial process is suspended pending referral of such issues to the administrative body for its views." (*Id.*, at pp. 63-64, 77 S.Ct. at p. 165, italics added; see also Schwartz, *supra*, § 8.23 at p. 486 ["Exhaustion applies where an agency *391 alone has exclusive jurisdiction over a case; primary jurisdiction where both a court and an agency have the legal capacity to deal with the matter."].)

As noted above, count 1 of the People's complaint presented a question of exhaustion of administrative remedies; the People attempted to litigate Insurance Code claims over which the Insurance Commissioner has been given exclusive jurisdiction without first invoking and completing the available administrative process set out in the Insurance Code. (See *ante*, p. 490, fn. 1 of 6 Cal.Rptr.2d, p. 733, fn. 1 of 826 P.2d.) By contrast, count 2 of the complaint—the only count before us now—presents a different issue. The Business and Professions Code claim in count 2 is "originally cognizable in the courts," and thus it triggers application of the primary jurisdiction doctrine.

C. Policy Considerations Underlying the Primary Jurisdiction and Exhaustion Doctrines

The policy reasons behind the two doctrines are similar and overlapping. The exhaustion doctrine is principally grounded on concerns favoring administrative autonomy (i.e., courts should not interfere with an agency determination until the agency has reached a final decision) and judicial efficiency (i.e., overworked courts should decline to intervene in an administrative dispute unless absolutely necessary). (See 2 Cooper, *supra*, at p. 573; Schwartz, *supra*, § 8.30 at p. 503; Koch, *Administrative Law and Practice* (1985) § 10.22, p. 177.) As explained above, the primary jurisdiction doctrine advances two related policies: it enhances court decisionmaking and efficiency by allowing courts to take advantage of administrative expertise, and it helps assure uniform application of regulatory laws. (See *Western Pacific, supra*, 352 U.S. at pp. 64-65, 77 S.Ct. at p. 165; 2 Cooper, *supra*, at p. 563; Schwartz, *supra*, § 8.24 at pp. 487-488; Koch, *supra*, § 10.23 at pp. 179-180; Modjeska, *Administrative Law Practice and Procedure* (1982) p. 204.)

4 No rigid formula exists for applying the primary jurisdiction doctrine (*Western Pacific, supra*, 352 U.S. 59, 64, 77 S.Ct. 161, 165). Instead, resolution generally hinges on a court's determination of the extent to which the policies noted

above are implicated in a given case. (*Ibid.*; 2 Cooper, *supra*, at pp. 564-570, and cases discussed.)⁹ This discretionary approach *392 leaves courts with considerable flexibility to avoid application of the doctrine in appropriate situations, as required by the interests of justice.¹⁰

IV. Whether the Legislature has Precluded Application of the Primary Jurisdiction Doctrine in Actions Filed Under Section 17200 of the Business and Professions Code

5 The People suggest that the Legislature, by establishing "cumulative" admin **740 istrative ***497 (§ 1858 et seq.) and civil (Bus. & Prof.Code, § 17200) "remedies" for the alleged violation of sections 1861.02 and 1861.05, has precluded courts from applying the primary jurisdiction doctrine in a case filed under the Business and Professions Code. In support, they cite *City of Susanville v. Lee C. Hess Co.* (1955) 45 Cal.2d 684, 290 P.2d 520 (hereafter *Susanville*), which states: "where a statute provides an administrative remedy and also provides an alternative judicial remedy the rule requiring exhaustion of the administrative remedy has no application if the person aggrieved and having both remedies afforded him by the same statute, elects to use the judicial one." (*Id.*, at p. 689, 290 P.2d 520, citing *Scripps etc. Hospital v. Cal. Emp. Com.* (1944) 24 Cal.2d 669, 673-674, 151 P.2d 109 (hereafter *Scripps*); see also *Abelleira v. District Court of Appeal* (1941) 17 Cal.2d 280, 292, 109 P.2d 942 (hereafter *Abelleira*) ["where an administrative remedy is provided by statute, relief must be sought from the administrative body and this remedy exhausted before the courts will act"].)

Contrary to the People's suggestions, we do not view the cited cases as addressing the primary jurisdiction doctrine. All three cases applied the exhaustion of remedies doctrine, and not the primary jurisdiction doctrine.¹¹ *393 Moreover, to the extent the People may be understood to assert that the analysis of *Scripps, supra*, 24 Cal.2d 669, 151 P.2d 109, and *Susanville, supra*, 45 Cal.2d 684, 290 P.2d 520, should control here by analogy, we find those cases inapposite. *Scripps, supra*, makes it clear that the trial court properly declined to *dismiss* an employer's action for its failure to *exhaust* an available, "alternative" administrative remedy, but nowhere does it address the primary jurisdiction question, namely, whether the trial court had authority to (i) entertain a civil action, and (ii) in ***498 **741 the exercise of its discretion under the judicially created primary jurisdiction doctrine, *stay* the judicial proceedings pending action by the administrative agency (see *ante*, p. 495, fn. 8 of 6 Cal.Rptr.2d, p. 738, fn. 8 of 826 P.2d). The same is true of *Susanville*,

supra.¹² Accordingly, we do not read the cited cases as prohibiting a court from exercising its discretion under the primary jurisdiction doctrine merely because “alternative” or “cumulative” administrative ~~394~~ and civil remedies are made available to a plaintiff.¹³ We conclude instead as follows:

6 7 If the Legislature establishes a scheme under which a court is prohibited from exercising discretion under the doctrine of primary jurisdiction, a court must honor the legislative scheme, and may not decline to adjudicate a suit on the basis that available administrative processes should first be invoked and completed. If, however, the Legislature does not preclude a court from exercising its discretion under the primary jurisdiction doctrine, a court may do so and, in appropriate cases, may decline to adjudicate a suit until the administrative process has been invoked and completed.

Accordingly, the threshold question we must decide is whether the Legislature established a scheme that precludes a court from exercising discretion under the primary jurisdiction doctrine. For the reasons set out below, we conclude the legislative scheme at issue here does not address the primary jurisdiction issue, and a court thus is free to exercise its discretion to determine whether to stay proceedings in this suit pending action by the Insurance Commissioner.

The People assert that section 1861.03, subdivision (a) (which, as noted above,¹⁴ provides that the insurance industry is subject to, *inter alia*, Business and Professions Code section 17200 et seq.) “neither restricts the use of section 17200 in insurance cases nor requires the use of administrative procedures within the Department of Insurance for the implementation of section 17200 or the adjudication of any violations....”

8 We agree that section 1861.03 does not condition a suit under Business and Professions Code section 17200 on prior resort to the administrative process under the Insurance Code. Indeed, it does not speak to that issue at all. It merely modifies preexisting law, to provide, in essence, that insurers are subject to the unfair business practices laws *in addition to* preexisting regulations under the McBride Act, as amended. Section 1861.03 discloses no legislative preference for, or against, permitting a court to exercise its discretion under the primary jurisdiction doctrine to stay judicial proceedings pending action by the Insurance Commissioner.

9 The People advance a similar argument with respect to Business and Professions Code section 17205, which, as noted above, states: “Unless ~~395~~ otherwise expressly provided, the remedies or penalties provided by this chapter are cumulative to each other and to the remedies or penalties available under all other laws of this state.” We conclude, however, that the “unfair competition” remedy provided under Business and Professions Code section 17205 also fails to disclose legislative intent one way or the other on the question presented here, namely, whether the Legislature ~~499~~ ~~742~~ intended to preclude a court from exercising discretion under the primary jurisdiction doctrine in a suit filed under Business and Professions Code section 17200. Instead, section 17205 merely reflects legislative intent that the remedy under Business and Professions Code section 17200 not displace any other remedy that might exist.

10 We base our construction of section 17205 of the Business and Professions Code not merely on the language of that section viewed in isolation, but on the scheme of the Unfair Practices Act as a whole. As noted above, section 17200 of the Business and Professions Code defines “unfair competition” very broadly, to include “ ‘anything that can properly be called a business practice and that at the same time is forbidden by law.’ ” (*Barquis, supra*, 7 Cal.3d 94, 113, 101 Cal.Rptr. 745, 496 P.2d 817.) Because it sweeps so broadly, the Unfair Practices Act applies to many situations in which no administrative process is available to address the challenged practice. Thus there is nothing from which we can conclude that the Legislature intended to preclude a court presented with a suit under the Unfair Practices Act from exercising discretion under the primary jurisdiction doctrine, in situations in which the practice challenged is one over which an administrative agency may also exercise jurisdiction. Instead, as with section 1861.03, subdivision (a), we conclude the Unfair Practices Act, and Business and Professions Code section 17205 in particular, discloses no legislative intent to preclude a court from exercising discretion under the primary jurisdiction doctrine before entertaining a civil action under section 17200 of the Business and Professions Code. It follows that we may consider whether to stay judicial proceedings pending action by the Insurance Commissioner in this case.

V. Recent Application of the Primary Jurisdiction Doctrine

Recently we applied primary jurisdiction principles in *Rojo v. Kliger* (1990) 52 Cal.3d 65, 276 Cal.Rptr. 130, 801 P.2d 373

(*Rojo*), in which the plaintiff asserted (i) statutory violations of the Fair Employment and Housing Act (Gov. Code, § 12900 et seq., hereafter the FEHA), and (ii) common law violations (intentional infliction of emotional distress, and wrongful discharge in contravention of public policy). Instead of submitting her claims to the administrative body established under the FEHA, the plaintiff in *Rojo* filed a civil suit.

*396 We held exhaustion of available remedies under the FEHA necessary before a plaintiff may proceed with *statutory claims* under that act (*Rojo, supra*, 52 Cal.3d at pp. 83-84, 276 Cal.Rptr. 130, 801 P.2d 373), but we found prior resort¹⁵ unnecessary before a plaintiff may proceed with a civil suit based on *common law claims* for damages resulting from sex discrimination in employment (*id.*, at pp. 84-88, 276 Cal.Rptr. 130, 801 P.2d 373). A review of the factors motivating this latter holding assists our analysis in the present case.

We held prior resort to the administrative process unnecessary for two reasons. First, we explained, “the FEHA does not have a ‘pervasive and self-contained system of administrative procedure’ [citation] for general regulation or monitoring of employer-employee relations so as to assess or prevent discrimination or related wrongs in the employment context....” (*Rojo, supra*, 52 Cal.3d at pp. 87-88, 276 Cal.Rptr. 130, 801 P.2d 373.) Second, “the factual issues in an employment discrimination case [are not] of a complex or technical nature beyond the usual competence of the judicial system.” (*Id.*, at p. 88, 276 Cal.Rptr. 130, 801 P.2d 373.) We concluded, “[w]ith all due respect to the efficiency and expertise the [administrative agency] bring[s] to bear in investigating and determining statutory discrimination cases, and the salutary effect [it has] on the settlement and disposition of such cases, these are not cases having such a paramount ***500 **743 need for specialized agency fact-finding expertise as to require [prior resort to and] exhaustion of administrative remedies before permitting an aggrieved person to pursue his or her related nonstatutory claims and remedies in court.” (*Ibid.*)

VI. Application of the Primary Jurisdiction Doctrine in This Case

Our analysis in *Rojo, supra*, 52 Cal.3d 65, 276 Cal.Rptr. 130, 801 P.2d 373, informs the result in this case. First, as explained above (*ante*, pp. 491-492 of 6 Cal.Rptr.2d, pp. 734-735 of 826 P.2d), the Insurance Commissioner has at his disposal a “pervasive and self-contained system of

administrative procedure” to deal with the precise questions involved herein.

11 Second, and more important, based on the allegations in the People's complaint, there is good reason to require that these administrative procedures be invoked here. As we explain below, we conclude that considerations of judicial economy, and concerns for uniformity in application of the complex insurance regulations here involved, strongly militate in favor of a stay to await action by the Insurance Commissioner in the present case.

In *Rojo, supra*, 52 Cal.3d 65, 276 Cal.Rptr. 130, 801 P.2d 373, we reasoned that in light of the nature of the common law action involved in that case, the agency had no special expertise that would warrant prior resort to its procedures. By contrast, other *397 courts have observed that questions involving insurance ratemaking pose issues for which specialized agency fact-finding and expertise is needed in order to both resolve complex factual questions and provide a record for subsequent judicial review. As noted in *Karlin v. Zalta* (1984) 154 Cal.App.3d 953, 986, 201 Cal.Rptr. 379, “[the Insurance Commissioner's] determination with respect to controverted rates could not only be of inestimable value to a court should trial be inevitable, but might eliminate the need for a trial, or might resolve major elements of dispute.” (See also *County of Los Angeles v. Farmers Ins. Exchange, supra*, 132 Cal.App.3d 77, 87, 182 Cal.Rptr. 879 [“the Insurance Commissioner and the Department of Insurance possess sophisticated bodies of expertise in this field which make them particularly able to handle these matters”].)

The People assert the claims at issue here “involve relatively simple factual determinations which do not require the detailed examination of experts within the Department of Insurance.” To support this view of their complaint, they assert, for the first time in briefs filed in this court, that their action is in reality one to preclude Farmers Insurance Exchange from referring persons who meet the criteria for a Good Driver Discount policy to Mid-Century Insurance Company, a “substandard” insurer that is part of the Farmers Group, but which charges rates “substantially higher” than Farmers for the same coverage.¹⁶

12 We cannot accept the People's recharacterization of their complaint. The complaint filed in superior court makes no mention of any alleged improper referral plan between Farmers and Mid-Century, and, although it was clearly possible for the People to do so,¹⁷ the complaint does ***501 **744 not on its face allege the factual claim that

the People now advance. Instead, the complaint tracks *398 the specific language of four of the numerous Insurance Code provisions that relate to Good Driver Discount policies. Taken at face value, the People's complaint alleges violations of specific statutory eligibility rules governing such policies, and violations of the statutory rules for rates under those policies.

We conclude that in determining whether it is appropriate to issue a stay of judicial proceedings in order to permit administrative action under the primary jurisdiction doctrine, we must confine our analysis to the complaint as written. A review of the allegations in the People's complaint demonstrates the "paramount need for specialized agency fact-finding expertise" in this case. (*Rojo, supra*, 52 Cal.3d at p. 88, 276 Cal.Rptr. 130, 801 P.2d 373.)

The gravamen of the People's action under section 17200 of the Business and Professions Code is alleged violation of three specific "Good Driver Discount policy" provisions of section 1861.02(b) and 1861.02(c), and the "unfairly discriminatory rates" provision of section 1861.05(a). In order to decide whether petitioners have violated the cited subdivisions of section 1861.02, it must be determined whether petitioners refused to offer discount policies to those who qualified for such a policy; refused to charge rates at least 20 percent below the rate that would otherwise have been charged; and used the absence of prior automobile insurance coverage, "in and of itself," to determine eligibility for a Good Driver Discount policy, or to establish rates and premiums. In order to decide whether petitioners have violated section 1861.05, it must be determined whether they employed an "unfairly discriminatory" rate. The resolution of these questions mandates exercise of expertise presumably possessed by the Insurance Commissioner, and poses a risk of inconsistent application of the regulatory statutes if courts are forced to rule on such matters without benefit of the views of the agency charged with regulating the insurance industry.

13 First, in determining eligibility for Good Driver Discount policies, section 1861.02(b)(1) specifies that the criteria set out in section 1861.025 are to be used. That section in turn addresses the eligibility of persons who have been involved in accidents during the prior three years, and who were "principally at fault." (§ 1861.025, subd. (b)(1), (b)(4).) The statute further provides, as to both criteria, "[t]he commissioner shall adopt regulations setting guidelines to be used by insurers for their determination of fault for the purposes *399 of [these] paragraph[s]." (§ 1861.025, subd. (b)(4); see Cal.Code Regs., tit. 10, ch. 5, subch.

4.7, § 2632.13.1.) It seems clear to us that the Insurance Commissioner is best suited initially to determine whether his or her own regulations pertaining to eligibility have been faithfully adhered to by an insurer.

Similarly, the determination of whether a given Good Driver Discount policy comports with the "20 percent discount" provision of the statute also calls for exercise of administrative expertise preliminary to judicial review. Inevitably, analysis of the People's claim will require "a searching inquiry into the factual complexities of [automobile] insurance ratemaking and the conditions of that market during the turbulent time here involved." (*Karlin v. Zalta, supra*, 154 Cal.App.3d 953, 983, 201 Cal.Rptr. 379.) To address the People's claim, one must inquire into the insurer's ratemaking process in order to determine what the rate would be for a given driver without the discount. Thereafter one must discern whether the rate offered on a given Good Driver Discount policy is 20 percent ***502 **745 below what the insured would otherwise have been charged. As we have observed, the question of insurance rate regulation has "traditionally commanded administrative expertise applied to controlled industries." (*Chicago Title Ins. Co. v. Great Western Financial Corp.* (1968) 69 Cal.2d 305, 323, 70 Cal.Rptr. 849, 444 P.2d 481.)

14 There is no reason to conclude otherwise in the present case; we think it is plain that a court attempting to determine whether a given Good Driver Discount policy meets the statutory 20 percent discount requirements should have the benefit of the Insurance Commissioner's expert assessment of that issue. In addition, we note that section 1861.02, subdivision (e), provides, "The commissioner shall adopt regulations implementing *this section* and insurers may submit applications pursuant to this article which comply with those regulations..." (Italics added; see Cal.Code Regs., tit. 10, ch. 5, subch. 4.7, § 2632.1 et seq.) As above, it seems clear that the Insurance Commissioner, rather than a court, is best suited initially to determine whether his or her own regulations pertaining to compliance have been faithfully adhered to by an insurer.¹⁸

15 Finally, and for the same reasons, the determination whether petitioners employed rates that are "unfairly discriminatory" also calls for exercise of administrative expertise preliminary to judicial review. In practice, resolution of the "unfairly discriminatory rate" question will turn in many instances on determination of the above discussed rate-setting provisions of *400 the Insurance Code. It is readily apparent that a court would benefit

immensely, and uniformity of decisions would be greatly enhanced, by having an expert administrative analysis available before attempting to grapple with such a potentially broad-ranging and technical question of insurance law.¹⁹

Accordingly, we reject the People's assertion that because eventual recourse to the courts is likely in this case, nothing is to be gained by requiring prior resort to the administrative process involved here. As we said in *Westlake Community Hosp. v. Superior Court* (1976) 17 Cal.3d 465, 476, 131 Cal.Rptr. 90, 551 P.2d 410, "even if ... ultimate resort to the courts [is] inevitable [citation], the prior administrative proceeding will still promote judicial efficiency by unearthing the relevant evidence and by providing a record which the court may review." In addition, we reject any suggestion that the interests of justice militate against a requirement of prior resort in this case. (See *ante*, p. 496, fns. 9 & 10 of 6 Cal.Rptr.2d, p. 739, fns. 9 & 10 of 826 P.2d.) The People do not assert that the administrative remedies available from the Insurance Commissioner are "inadequate," and we dismiss as unsupported conjecture the suggestion that prior resort to the administrative process will unduly delay or frustrate resolution of the issues presented in the People's complaint.

The cases cited by the People (*People v. McKale, supra*, 25 Cal.3d 626, 159 Cal.Rptr. 811, 602 P.2d 731; *People v. Los Angeles Palm, Inc.* (1981) 121 Cal.App.3d 25, 175 Cal.Rptr. 257; and *People v. Casa Blanca Convalescent Homes, Inc.* (1984) 159 Cal.App.3d 509, 206 Cal.Rptr. 164), do not require a contrary result. In *McKale, supra*, 25 Cal.3d 626, 159 Cal.Rptr. 811, 602 P.2d 731, we held that although a specific ***503 **746 statutory remedy existed for a violation of the Mobilehome Park Act (Health & Saf.Code, § 18200 et seq.), a civil action for unfair competition under Business and Professions Code section 17200 et seq. was proper. *Los Angeles Palm, Inc., supra*, 121 Cal.App.3d 25, 175 Cal.Rptr. 257, allowed an action under section 17200 et seq. of the Business and Professions Code although the Labor Code provided a remedy for the harm alleged. *Casa Blanca Convalescent Homes, Inc., supra*, 159 Cal.App.3d 509, 206 Cal.Rptr. 164, recognized the Attorney General's right to sue under Business and Professions Code section 17200 et seq. based on conduct also regulated by the Department of Health Services under Health and Safety Code, section 1417 et seq. All three cases, however, are inapposite.

*401 Each decision focused on *whether* -not *when* -the People may bring an unfair competition action. At most, they may be read as implicitly holding that, based on the allegations involved in those matters, prior resort to available

administrative processes was unnecessary on the facts of each case. None of the cases stands for the proposition that actions brought under the Business and Professions Code are, as a matter of law, outside the application of the primary jurisdiction doctrine.

Finally, we reject the People's unsupported and novel claim that because the Attorney General is the chief law enforcement officer of the state, actions filed by him should not be subject to the primary jurisdiction doctrine. The reasons supporting the doctrine apply to private citizens and the Attorney General alike, and the two classes of plaintiffs should be treated equally. The primary jurisdiction doctrine evolved for the benefit of courts and administrative agencies, and unless precluded by the Legislature, it may be invoked whenever a court concludes there is a "paramount need for specialized agency fact-finding expertise." (*Rojo, supra*, 52 Cal.3d at p. 88, 276 Cal.Rptr. 130, 801 P.2d 373.)²⁰

VII. Conclusion

We conclude, based on the complaint as it stands, that a paramount need for specialized agency review militates in favor of imposing a requirement of prior resort to the administrative process, and as noted above we reject any suggestion that the interests of justice militate against application of a prior resort requirement in this case.

Accordingly, the judgment of the Court of Appeal is reversed with directions to issue a writ of mandate directing the superior court to stay judicial proceedings in this case and retain the matter on the court's docket pending proceedings before the Insurance Commissioner (see, e.g., *Tank Car Corp. v. Terminal Co., supra*, 308 U.S. 422, 432-433, 60 S.Ct. 325, 331; *Sherhoff v. Superior Court, supra*, 44 Cal.App.3d 406, 408-409, 118 Cal.Rptr. 680), and to closely monitor the progress of the administrative proceedings to ensure against unreasonable delay of the People's civil action (see, e.g., *Sherhoff v. Superior Court, *402 supra*, 44 Cal.App.3d 406, 408, 118 Cal.Rptr. 680; *Red Lake Band of Chippewa Indians v. Barlow* (8th Cir.1988) 846 F.2d 474, 476-477; see generally *Rohr Industries v. Wash. Metro Area Transit Auth.* (D.C.Cir.1983) 720 F.2d 1319, 1326-1327).

PANELLI, KENNARD, ARABIAN, BAXTER and GEORGE, JJ., concur.

***504 MOSK, Justice, dissenting.

I dissent. California has never recognized the doctrine of primary jurisdiction, and prior authority in this state is in conflict with that concept. Even if this court should decide at some time to judicially legislate that theory, the facts involved in this case, and the dilatory result, do not justify its application. Finally, there are sound reasons of policy for holding that the question whether petitioners violated the Unfair Practices Act (Bus. & Prof.Code, § 17000 et seq.) should be decided by a court initially rather than by successive determinations by the Commissioner of the Department of Insurance (Insurance Commissioner) and a court.

I

No decision in this state has ever forthrightly applied the doctrine of primary jurisdiction, and the three California cases to which the majority refer and attempt to distinguish are in direct conflict with that doctrine. (*City of Susanville v. Lee C. Hess Co.* (1955) 45 Cal.2d 684, 290 P.2d 520 (*Susanville*); *Scripps etc. Hospital v. Cal. Emp. Com.* (1944) 24 Cal.2d 669, 151 P.2d 109 (*Scripps*); *McKee v. Bell-Carter Olive Co.* (1986) 186 Cal.App.3d 1230, 231 Cal.Rptr. 304 (*McKee*)).¹ Each holds that in a situation like the matter before us, in which a litigant is afforded the choice whether to bring a proceeding before an administrative body or to file an action in court, the litigant may choose either remedy, and is not required to resort initially to the agency for the vindication of his or her rights. The holdings in these cases are in direct conflict with the majority's determination that a court has discretion whether or not to exercise jurisdiction under these circumstances.

*403 If anything, the present case is an even stronger vehicle than the cited cases for application of the well-established rule relied on therein. The statutes in those cases (with the exception of *McKee*), merely granted the right to an administrative determination or to a court action. They did not contain language like section 17205 of the Business and Professions Code, which provides explicitly that the remedies under the Unfair Practices Act are "cumulative" to those granted under any other laws.

The majority opinion declares that the three cases cited applied "the exhaustion of remedies doctrine, and not the primary jurisdiction doctrine." I disagree with this characterization of the cases. In fact, all three cases refused to apply the exhaustion doctrine because the Legislature had given the aggrieved party a choice of remedies. As the majority opinion concedes, the exhaustion doctrine applies

when the administrative agency *alone* has initial jurisdiction to hear the matter. In all three cases cited above—as well as in the present case—both the agency and a court had such power, and therefore the exhaustion doctrine did not apply. The majority simply refuse to adhere to the prevailing theory on which those cases were decided, i.e., that it is for the litigant to choose which forum to utilize in these circumstances.

The opinion attempts to distinguish *Scripps* on the ground that it did not "address the primary jurisdiction question" because it failed to decide whether a court has authority to exercise its discretion to stay judicial proceedings pending action by an administrative agency. In fact, the ***505 **748 *Scripps* court's holding can only be read as prohibiting the exercise of such discretion. After stating the rule that a litigant may choose the forum in which to bring the action if the Legislature has provided alternative remedies, *Scripps* declares that "it is not for the courts to add conditions to the exercise of [the right to bring an action in court] which are not imposed by the statute." (24 Cal.2d at p. 674, 151 P.2d 109.) I cannot read this holding as anything but a determination that a court does not have the power to require a litigant to first resort to an administrative remedy when a statute provides a choice whether to do so or to bring a court action.

As for *Susanville*, which the majority attempt to distinguish on the same ground as *Scripps*, it holds that the rule requiring exhaustion of administrative remedies has "no application" if the aggrieved person is granted alternative remedies and elects to use judicial means. (45 Cal.2d at p. 689, 290 P.2d 520.) This amounts to a determination that a court cannot compel a litigant to resort to the process of an administrative agency if one has been granted the right to sue in court.

The majority state, regarding *McKee*, that they do not to read the opinion in that case as suggesting that the availability of cumulative remedies bars *404 application of the primary jurisdiction doctrine. In my view, there is no other way to read the decision. The *McKee* opinion recites the general rule of *Scripps*, and then concludes that because the administrative proceeding and the court action are cumulative remedies, plaintiff is not required to exhaust administrative remedies. (186 Cal.App.3d 1230 at p. 1246, 231 Cal.Rptr. 304.) A party who has been granted the right to bring a court action cannot be compelled to exhaust administrative remedies, if either course is open under the law.

The only case cited by the majority which they claim applied the doctrine of primary jurisdiction in California, is *Rojo v. Kliger* (1990) 52 Cal.3d 65, 276 Cal.Rptr. 130, 801 P.2d 373

(*Rojo*). However, as the majority must recognize, *Rojo* refers not to that doctrine but to exhaustion of remedies. There, the plaintiffs filed a civil action seeking damages for employment discrimination. We held that they should not be required to exhaust their remedies before the Fair Employment and Housing Commission, employing reasoning generally used to determine whether a party should be required to exhaust administrative remedies. (See e.g., *Karlin v. Zalta* (1984) 154 Cal.App.3d 953, 983, 201 Cal.Rptr. 379.)

If it should be deemed advisable to adopt a judge-made doctrine of primary jurisdiction in this state, the majority should state forthrightly that they do so, instead of futilely attempting to distinguish cases which are incompatible with the existence of that doctrine.

II

Even if the primary jurisdiction principle should become applicable in California, it would not apply under the circumstances of this case.

The majority state several grounds for requiring the People to bring this proceeding before the Insurance Commissioner. First, relying on the reasons advanced in *Rojo*, they assert that here, unlike in that case, the administrative agency has “a ‘pervasive and self-contained system of administrative procedure’ to deal with the precise questions involved herein.” In support of this proposition, they cite sections of the Insurance Code that prescribe the procedure for the investigation and resolution of complaints regarding allegations of unfair rates. That is, notice and hearing, proceedings to contest the allegations made by the complainant, and provisions for appeal. But the Fair Employment and Housing Commission in *Rojo* had similar powers. (52 Cal.3d at p. 72, 276 Cal.Rptr. 130, 801 P.2d 373.) I dispute the majority's assertion that the administrative procedures for challenging rates before the Insurance Commissioner are “pervasive,” for we have found in a case as recently decided as *Rojo* that similar procedures do not meet that description.

*405 Nor do I agree with the second ground offered by the majority as the justification for requiring that the People resort ***506 first to **749 a determination of the issues raised in their complaint by the Insurance Commissioner, i.e., that his expertise is required to resolve the issues. Unlike *Karlin v. Zalta*, *supra*, 154 Cal.App.2d 953, 983, 201 Cal.Rptr. 379, on which the majority rely, the issues raised by the People are not “singularly within the technical competence of the

Insurance Commissioner through the enlistment of agency resources.” The question whether an insured is entitled to a “good driver” discount depends on whether the driver was involved in an accident during the prior three years, and was “principally at fault.” The insurer makes the determination of fault under guidelines issued by the commissioner. (Ins.Code, § 1861.025, subd. (b)(4).) A court in its fact-finding role is at least as qualified as the commissioner to determine whether an insurer has followed those guidelines. (Cf. *Gt. No. Ry. v. Merchants Elev. Co.* (1922) 259 U.S. 285, 291, 42 S.Ct. 477, 479, 66 L.Ed. 943, refusing to apply the primary jurisdiction doctrine because “what construction shall be given to a railroad tariff presents ordinarily a question of law....”) This determination of facts cannot be said to be within the special “technical competence,” of the Insurance Commissioner. It is significant that he makes no such claim in this case.

Once the question of fault is decided, it is necessary to ascertain whether the required discount has been afforded. The majority assert that this determination calls for a “searching inquiry into the factual complexities of [automobile] insurance ratemaking.” I disagree. The issue here is not whether the insurer charged a reasonable rate or one which complies with statutory requirements for such a rate, but whether the rate charged is below what the insurer would have charged without the discount. The answer to that is clear under the circumstances of this case. No determination whether the discount was afforded is required by either the Insurance Commissioner or a court because it is undisputed that the “good driver” discount provisions have not been implemented. It follows that the rate charged is in excess of the rate which would have been charged without the discount.

The majority claim also that uniformity of decision will be enhanced by an administrative determination of the issues raised in the People's complaint before a court attempts to grapple with “such a broad-ranging and technical question of insurance law.” But the question whether a driver is entitled to a “good driver” discount under the guidelines adopted by the commissioner involves the application of those guidelines to the circumstances of a particular case. I fail to see how uniformity of decision will be promoted by a preliminary determination of the issue by the commissioner since the fault of each driver depends on the facts relating to a specific *406 driving record, and application of the guidelines thereto. Those are typical decisions made by a court rather than an administrative agency.

III

Furthermore, there are persuasive policy reasons which militate against application of the primary jurisdiction doctrine in this case.

First, it will not promote judicial economy. In *Rojo*, we reasoned that a determination by the administrative agency of the issues raised in the complaint would have no beneficial impact on the judicial system because the case must in any event still enter the "judicial pipeline." (52 Cal.3d at p. 88, 276 Cal.Rptr. 130, 801 P.2d 373.) This rationale also applies here. If, as occurred in *Sherhoff v. Superior Court*, supra, 44 Cal.App.3d 406, 118 Cal.Rptr. 680, the Insurance Commissioner declines to exercise his jurisdiction to decide the issues raised in this proceeding—as he indicates he is likely to do by his support of the Attorney General herein—the courts will not receive the assistance from administrative determination of the issues which the majority claim as the justification for application of the primary jurisdiction doctrine.

Moreover, as we also observed in *Rojo*, requiring the agency to decide the matter would limit the resources available to it for resolution of cases within its jurisdiction. It is no secret that the Insurance Commissioner ***507 **750 is understaffed and overburdened with litigation relating to Proposition 103. The Department of Insurance agrees. It supports the position of the People in this case on the ground that the Insurance Commissioner cannot reasonably be expected to respond to all allegations of violations of the Unfair Practices Act, and that requiring the exhaustion

of administrative remedies would weaken or destroy the effectiveness of remedies granted thereunder.

By providing in Proposition 103 that both the Insurance Commissioner and the People should have the power to enforce the "good driver" provisions, the voters clearly intended that the People have the right to obtain an expeditious determination before a court whether an insurer is complying with those provisions. They did not contemplate dilatory proceedings and successive decisions on the same issue by the Insurance Commissioner and subsequently by the courts. The holding of the majority violates this intent.

Finally, the opinion dismisses summarily as "unsupported conjecture" the claim that prior resort to the administrative process will unduly delay or frustrate resolution of the issues presented by the People. As the majority concede, however, expense to litigants and delay are factors which militate against application of the doctrine. (See *United States v. McDonnell Douglas *407 Corp.* (8th Cir.1984) 751 F.2d 220, 224; *Mississippi Power & Light Co. v. United States Gas Pipe Line Co.* (5th Cir.1976) 532 F.2d 412, 419; cf. *Rojo*, supra, 52 Cal.3d 65, 88, 276 Cal.Rptr. 130, 801 P.2d 373.)

It is now three and one-half years since Proposition 103 was enacted, and the voters are still waiting for the enforcement of the discount insurers are required to afford to good drivers. The majority fail to justify the significant and unnecessary delay which their holding is certain to cause in the enforcement of this key provision of Proposition 103.

I would affirm the judgment of the Court of Appeal.

Parallel Citations

2 Cal.4th 377, 826 P.2d 730

Footnotes

- 1 This conclusion appears correct. Pursuant to the Insurance Code, the People's claims under that code are exclusively the province of the Insurance Commissioner. (§ 1860.2 ["The ... enforcement of this chapter shall be governed solely by the provisions of this chapter."]; § 1858 et seq. [setting out procedures for administrative determination of rate and ratemaking issues].) Judicial review is of course available to challenge those administrative determinations (see §§ 1858.6, 1861.09), but such review may be obtained only after the available administrative procedures have been invoked and exhausted (see *post*, p. 497, fn. 11 of 6 Cal.Rptr.2d, p. 740, fn. 11 of 826 P.2d).
- 2 It is clear that the Attorney General, on behalf of the People, may initiate or intervene in such a complaint. (§ 1861.10, subd. (a) ["Any person may initiate or intervene in any proceeding permitted or established pursuant to this chapter, challenge any action of the commissioner under this article, and enforce any provision of this article"].) As an alternative to the complaint procedure, section 1858.1, paragraph one, allows the commissioner to initiate proceedings by providing the insurer with written notice of noncompliance.
- 3 Effective September 1990, and operative January 1, 1991, the Legislature added section 1861.16, subdivision (b), which states: "An agent or representative representing one or more insurers having common ownership or operating in California under common management or control shall offer, and the insurer shall sell, a good driver discount policy to a good driver from an insurer within

- that common ownership, management, or control group, which offers the lowest rates for that coverage. This requirement applies notwithstanding the underwriting guidelines of any of those insurers or the underwriting guidelines of the common ownership, management, or control group....” (Stats.1990, ch. 1185, § 2, subd. (b) [No. 6 Deering's Adv.Legis.Service, p. 4450].)
- 4 See 2 Cooper, State Administrative Law (1965), 561-562 (hereafter Cooper).
- 5 See, e.g., *Gt. No. Ry. v. Merchants Elev. Co.* (1922) 259 U.S. 285, 42 S.Ct. 477, 66 L.Ed. 943 (hereafter *Merchants*).
- 6 Section 9 of the Commerce Act stated: “[A]ny person or persons claiming to be damaged by any common carrier subject to the provisions of this act may either make a complaint to the Commission ... or may bring suit in his or their own behalf for the recovery of the damages for which such common carrier may be liable under the provisions of this act ...; but such person shall not have the right to pursue both of said remedies, and must in each case elect which one of the two methods of procedure herein provided for he or they will adopt....” (204 U.S. at pp. 438-439, 27 S.Ct. at p. 354, quoting the Commerce Act.) The statute also provided in section 22, “Nothing in this act ... shall in any way abridge or alter the remedies now existing at common law or by statute, but the provisions of this act are in addition to such remedies.” (204 U.S. at p. 446, 27 S.Ct. at pp. 357-358, quoting the Commerce Act.)
- 7 Subsequent cases applying the primary jurisdiction doctrine have refrained from holding that courts have no power to entertain a civil suit, and have instead viewed the question as one of timing. Thus, as Professor Davis observed, “the law of primary jurisdiction almost always answers the question *when* a court may act, not the question *whether* it may act....” (4 Davis, Administrative Law (2d ed. 1983) § 22:1, p. 82, italics in original; accord, 2 Cooper, *supra*, at p. 562 [“The doctrine does not operate to remove these issues completely from the sphere of judicial action; its operation is, rather, to determine whether the initial consideration of the matter should be by a court or by an agency. If it is held that the doctrine is applicable, and prior resort to the agency is required, the case may still (in appropriate instances) be considered by the courts subsequent to the administrative determination.”]; accord, *Shernoff v. Superior Court* (1975) 44 Cal.App.3d 406, 409, 118 Cal.Rptr. 680; see also *post*, p. 495, fn. 8 of 6 Cal.Rptr.2d, p. 738, fn. 8 of 826 P.2d [discussing stay procedure under the primary jurisdiction doctrine].)
- 8 The stay procedure employed by the court of appeal in *Nader* was consistent with prior high court cases involving the primary jurisdiction doctrine. In *Tank Car Corp. v. Terminal Co.* (1940) 308 U.S. 422, 433, 60 S.Ct. 325, 331, 84 L.Ed. 361, the court concluded: “When it appeared in the course of the litigation that an administrative problem, committed to the Commission, was involved, the court should have stayed its hand pending the Commission's determination of the lawfulness and reasonableness of the practices under the terms of the Act. There should not be a dismissal but ... the cause should be held pending the conclusion of an appropriate administrative proceeding.” (Citation omitted; accord, *Shernoff v. Superior Court*, *supra*, 44 Cal.App.3d 406, 408-409, 118 Cal.Rptr. 680.)
- 9 Although this approach focuses on the benefits to be gained by courts (e.g., efficiency and uniform application of regulatory laws) and agencies (e.g., autonomy) under the primary jurisdiction doctrine, courts have also appropriately considered the alleged “inadequacy” of administrative remedies, and other factors affecting litigants, in determining whether the interests of justice militate against application of the doctrine in a particular case. (See, e.g., 2 Cooper, *supra*, at p. 570 [“[o]ccasionally, prior resort is excused on the grounds that the administrative remedy would be plainly inadequate”]; Koch, *supra*, (1990 supp.) at p. 147 [“courts should consider the expense and delay to litigants before invoking the [primary jurisdiction] doctrine”].)
- 10 Other state courts have declined to treat the doctrine of primary jurisdiction as an “inflexible mandate.” Instead, the doctrine “is predicated on an attitude of judicial self-restraint, and is applied when the court believes that considerations of policy recommend that the issue be left to the administrative agency for initial determination.... The state courts have made it plain ... that the application of the requirement involves the exercise of judicial discretion.” (2 Cooper, *supra*, at pp. 564-565.)
- 11 In *Abelleira*, *supra*, 17 Cal.2d 280, 109 P.2d 942, numerous longshoremen registered for unemployment benefits, and an administrative tribunal of the California Employment Commission ruled in their favor. Before exercising their statutory right to appeal the referee's decision to the Employment Commission itself, various employers sought writ relief from the referee's decision in the courts. (*Id.*, at pp. 283-285, 109 P.2d 942.) We explained that before the commission had an opportunity to rule on the employers' appeal, the employers had “no right to demand an extraordinary writ from a court” (*id.*, at p. 292, 109 P.2d 942), and stated, “where an administrative remedy is provided by statute, *relief must be sought from the administrative body and this remedy exhausted* before the courts will act.” (*Ibid.*, italics added.)
- Scripps*, *supra*, 24 Cal.2d 669, 151 P.2d 109, concerned an employer's claim that it was exempt from the obligation to make unemployment insurance contributions. After receiving an unfavorable ruling from the Employment Commission, but before exercising its statutory right to have its claim reheard before the “entire commission,” the employer paid the challenged taxes and filed legal actions in court to recover the amounts paid. We noted that whereas one section of the applicable statute provided for a rehearing before the entire commission, another section of the same act provided that any employer could pay the contribution, and then bring a legal action for recovery. (*Scripps*, *supra*, 24 Cal.2d at p. 673, 151 P.2d 109.) We found the Legislature did not intend the administrative rehearing remedy to be “a necessary precedent to the use of the other remedy expressly given by the statute” (*ibid.*), and reasoned that the “usual rule” of *Abelleira*, *supra*, 17 Cal.2d 280, 109 P.2d 942, did not apply when “alternative”

remedies are made available by statute, because “it is not for the courts to add conditions to the exercise of that right which are not imposed by the statute.” (*Scripps, supra*, 24 Cal.2d at p. 674, 151 P.2d 109.) We concluded, “the court correctly refused to grant the motion[] to dismiss.” (*Ibid.*)

Susanville, supra, 45 Cal.2d 684, 290 P.2d 520, followed *Scripps*. After the City Council of Susanville accepted a contractor's bid for public works, it rescinded the award, and accepted another bid. The applicable statute gave both the contractor and the city a right to bring a civil action to determine the “‘validity of the proceedings [before the council] and the thereto.’” (*Susanville, supra*, 45 Cal.2d at p. 688, 290 P.2d 520.) The city initiated a proceeding under the above section, and the trial court ruled on the merits that the city had acted properly. In response to the contractor's appeal of the trial court's ruling, the city asserted the contractor “‘lost all right it might have had to object to the rescinding action taken by the council ... because it had never appealed to the city council, that is to say, had not exercised its right to administrative remedies....’” (45 Cal.2d at p. 689, 290 P.2d 520.) We rejected the point on the ground that the applicable statute granted “alternative” judicial and administrative remedies to the contractor, and accordingly, under *Scripps, supra*, “‘the rule requiring exhaustion of administrative remedies has no application.’” (*Susanville, supra*, 45 Cal.2d at p. 689, 290 P.2d 520.)

12 A more recent case, *McKee v. Bell-Carter Olive Co.* (1986) 186 Cal.App.3d 1230, 231 Cal.Rptr. 304, concerned a common law action for breach of contract. The court observed that “cumulative” administrative remedies were provided under the Food and Agricultural Code, and held, on the basis of *Susanville, supra*, 45 Cal.2d 684, 689, 290 P.2d 520, that “exhaustion” of the administrative remedy was unnecessary. (*McKee, supra*, 186 Cal.App.3d at pp. 1239-1246, 231 Cal.Rptr. 304.) We do not read *McKee, supra*, as suggesting that the availability of “cumulative” administrative remedies bars application of the *primary jurisdiction doctrine* in a civil action.

13 Contrary to assertions of amicus curiae for the People, this conclusion is not in conflict with, but is consistent with, the high court's analysis in *Nader, supra*, 426 U.S. 290, 300-301, 96 S.Ct. 1978, 1985. (See *ante*, p. 495 of 6 Cal.Rptr.2d, p. 738 of 826 P.2d.)

14 Section 1861.03, subdivision (a) is quoted, *ante*, at page 492 of 6 Cal.Rptr.2d, page 735 of 826 P.2d.

15 As have other state and federal courts in other contexts, we referred to “exhaustion” of administrative remedies in this portion of *Rojo* although we were in fact considering a question of prior resort to administrative procedures under the primary jurisdiction doctrine.

16 The People's brief reads as follows: “In the months following the November 8, 1989[,] operative date for section 1861.02, the Attorney General received reports regarding widespread violations of the good driver provisions of that section. Notably, defendant Farmers Insurance was refusing to sell good driver discount insurance policies to persons who meet the definition of a good driver. Instead, Farmers referred those persons to defendant Mid-Century Insurance Company, a substandard company that is part of the Farmers Group [and] which charged substantially higher rates than Farmers for the same coverage. In the belief that defendants were failing to comply with the statute's requirements, the Attorney General, on March 2, 1990, filed the instant complaint pursuant to Business and Professions Code section 17200.”

17 Over four months before the People's complaint was filed in this case, the Insurance Commissioner filed a “Notice of Noncompliance Pursuant to Insurance Code Section 1858.1” against Farmers Insurance Exchange and Mid-Century Insurance Company alleging, inter alia, that “Farmers and Mid-Century Insurance Company ... agreed that [certain applicants] who apply for insurance from Farmers would be offered and issued a policy in Mid-Century only and would not be offered or issued a policy in Farmers.” The record also discloses that two days after the People's complaint was filed in this matter, the Insurance Commissioner filed another “Notice of Noncompliance” against Farmers Insurance Exchange, alleging the underwriting rules “made or used by Farmers ... do not comply with the requirements of ... section 1861.02(b)(1) and California Code of Regulations, Title 10, Chapter 5, subchapter 4.7.” The notice alleges the commissioner “is informed and believes” that Farmers has refused, and continues to refuse to issue Good Driver Discount policies to various groups of persons who otherwise qualified under the provisions of the Insurance Code.

18 For similar reasons, the determination of whether petitioners have used the absence of prior insurance “in and of itself” as “a criterion for determining eligibility for a Good Driver Discount policy, or generally for automobile rates, premiums, or insurability,” also calls for exercise of administrative expertise preliminary to judicial review.

19 Shortly before oral argument the Insurance Commissioner, in a letter to the court, expressed his views that (i) we should not require “exhaustion” of Insurance Code claims in “all” cases filed under the Business and Professions Code; and (ii) we should not require prior resort to the administrative process in the present case. As explained above, we agree that the “exhaustion” rule does not apply to the claims at issue here; but as also explained above, we conclude prior resort to the administrative process is required because the People's complaint demonstrates the “paramount need for specialized agency fact-finding expertise” in this case. (*Rojo, supra*, 52 Cal.3d at p. 88, 276 Cal.Rptr. 130, 801 P.2d 373.)

20 Similarly, we reject the assertion of amicus curiae, the District Attorney of Contra Costa County, that district attorneys lack standing to bring administrative actions before the Insurance Commissioner, and thus a district attorney who wishes to prosecute a Business and Professions Code action against an insurer should be allowed to do so without regard to the primary jurisdiction doctrine. Application of the doctrine does not depend on the civil litigant's ability to bring an administrative action; instead, the doctrine may be applied so long as the administrative agency itself has the authority to initiate administrative action. (See *Nader, supra*, 426 U.S.

at pp. 302-304, 96 S.Ct. at pp. 1986-1987 [undertaking primary jurisdiction analysis although plaintiff was not entitled to bring administrative action].) As observed, *ante*, page 491 of 6 Cal.Rptr.2d, page 735 of 826 P.2d, footnote 2, the Insurance Commissioner has authority to initiate action under the Insurance Code.

- 1 The only California case cited by the majority that even mentions the primary jurisdiction theory is *Sherhoff v. Superior Court* (1975) 44 Cal.App.3d 406, 118 Cal.Rptr. 680. There, the plaintiffs filed an action against numerous insurers, alleging that they had conspired to fix rates. The trial court issued a stay "on a theory of primary jurisdiction, a theory which assumed that for reasons of comity the Insurance Commissioner should be given the first opportunity" to act on the allegations. (*Id.* at p. 408, 118 Cal.Rptr. 680.) The Court of Appeal vacated the stay order, holding that the plaintiffs were not required to exhaust their administrative remedies because the Insurance Commissioner did not have the power to grant damages, the relief sought by the plaintiffs. In the course of its discussion, the court stated that the "doctrine of primary jurisdiction does not permanently foreclose judicial action but rather it provides the appropriate administrative agency with an opportunity to act if it so chooses. At most, the commissioner's jurisdiction is 'primary,' not 'exclusive,' and in this instance he has chosen not to exercise it." (*Id.* at p. 409, 118 Cal.Rptr. 680.)

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Attachment 26

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116 Cal.App.3d Supp. 1, 172 Cal.Rptr. 191

HAZON-INY DEVELOPMENT,
INC., Plaintiff and Respondent,

v.

KATHLEEN UNKEFER, Defendant and Appellant.

HAZON-INY DEVELOPMENT,
INC., Plaintiff and Respondent,

v.

MARILYN MERKEN, Defendant and Appellant.

HAZON-INY DEVELOPMENT,
INC., Plaintiff and Respondent,

v.

RAY DOUGHERTY, Defendant and Appellant.

HAZON-INY DEVELOPMENT,
INC., Plaintiff and Respondent,

v.

PATRICIA WOJEWOCKI et
al., Defendants and Appellants.

Civ. A. No. 14594., Civ. A. No. 14595.,
Civ. A. No. 14596., Civ. A. No. 14597.

Appellate Department, Superior
Court, Los Angeles County, California.
Dec 4, 1980.

SUMMARY

A city rent control board denied a landlord's petition for an order declaring that the landlord had a vested right to convert its apartment house into condominiums by virtue of the city planning commission's approval of a tentative tract map for such conversion and by virtue of a permit by the city building department allowing the landlord to perform work to comply with the conditions for approval of the tentative tract map that was issued a day before the city's rent control charter amendment went into effect. The landlord then brought unlawful detainer actions against its apartment house tenants. Each of the tenants set up as an affirmative defense that plaintiff had failed to comply with the city's rent control law by not first obtaining a permit from the board authorizing the removal of its apartment house from the rental housing market as provided by the city's rent control charter amendment, and that plaintiff was thus barred from evicting the tenants under the city's rent control law. The trial court made orders adjudicating all issues involved in each unlawful

detainer action. The issues in each case were determined in favor of the landlord except as to the reasonable value of the rental, the damages, and the attorneys' fees. (Municipal Court for the Santa Monica Judicial District of Los Angeles County, Civ. A. Nos. 53549, 53550, 53551, and 53552, Joseph W. Chandler, Judge.)

The appellate department of the superior court reversed. It held that the trial court's determination the landlord had either complied with the city's rent control law or was not subject to that law constituted reversible error in that the court acted in excess of its jurisdiction in allowing the landlord to collaterally attack the order of the city rent control board, which was a quasi-judicial administrative body. It further held that the landlord's remedy was not to challenge the order of the board in the unlawful detainer actions, but rather to challenge that order by administrative mandamus. (Opinion by Ibáñez, P. J., with Bigelow, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1) Landlord and Tenant § 171--Unlawful Detainer--Jurisdiction--Collateral Attack on Rent Control Board's Order.

The trial court's determination that plaintiff in unlawful detainer actions against its apartment house tenants had either complied with or was not subject to a city's rent control law, which required obtaining a permit from the city's rent control board before bringing such an action, constituted reversible error, where the city rent control board had in effect previously ruled to the contrary in denying the landlord's petition for a declaration the landlord had a vested right to proceed with converting its apartment house into condominiums. The court acted in excess of its jurisdiction in permitting the landlord to collaterally attack the order of the board, which was a quasi-judicial administrative body. The landlord's remedy was not to challenge the order of the board in the unlawful detainer actions, but rather to challenge that order by administrative mandamus.

[See [Cal.Jur.3d, Courts, §§ 101, 102](#); [Am.Jur.2d, Courts, § 30](#).]

COUNSEL

Matthew B. F. Biren, David Koppelman and Sroloff & Biren for Defendants and Appellants.

William A. Ross and Richard W. Lyman, Jr., for Plaintiff and Respondent.

Robert M. Myers and David R. Pettit as Amici Curiae.

IBÁÑEZ, P. J.

This is a consolidated appeal by the defendants, who were tenants of the plaintiff, from judgments against them in unlawful detainer actions. We reverse each judgment on the ground that the court below acted in excess of its jurisdiction in permitting the plaintiff to collaterally attack the orders of a quasi-judicial administrative body, namely, the Santa Monica Rent Control Board (Board).

The appeals are on clerk's transcripts. We rely upon the admissions made by the parties in their appellate briefs. (6 Witkin, *Cal. Procedure* (2d ed. 1971) *Appeal*, § 428.) We take judicial notice of the Rent Control Act of the City of Santa Monica (City), as well as its rent control board regulations (Regulations). (*Evid. Code*, § 459.)

The plaintiff was t owner of a 14-unit apartment building and defendants were its tenants. A chronology of the events which preceded the judgments in unlawful detainer is as follows: On March 19, 1979, the planning commission of the City acted on plaintiffs application to convert its apartment building into a condominium by approving tentative tract map. On April 9, 1979, the building department of the City issued a permit allowing the plaintiff to perform work to comply with the conditions for approval of the tentative tract map. The following day, April 10, 19, the rent control charter amendment of the City went into effect. On June 26 1979, the plaintiff commenced work under the permit; the work was stopped when on July 2, 1979, the City issued a stop notice.

Plaintiff next filed a petition for an order by the Board to have it declare that plaintiff had a vested right to proceed in converting its *4 property into condominiums. The petition was denied and findings were made by the Board on August 2, 1979.¹ On July 20, 1979, one day after the Board's oral denial of its petition, plaintiff had 30-day notices terminating the tenancies served on its tenants, the defendants here. On their failure to vacate, unlawful detainer actions were filed on September 19, 1979. (1)Each defendant, by answer to the complaint, set up the following affirmative defense: that plaintiff had failed to comply with the City's rent control law by not first obtaining a permit from the Board authorizing

the removal of its apartment building from the rental housing market as provided for by section 1803, subdivision (t) City's rent control charter amendment; hence, plaintiff was barred from evicting defendants under section 1806, subdivision (i) of the rent control law.² On november 19, 1979, the trial court made orders adjudicating "all issues involved" in each unlawful detainer action. The issues in each case were in favor of the plaintiff except as to the reasonable value of determination was made that the plaintiff had either complied with the trial court erred. the remedy of the plaintiff was not to challenge that order by administrative mandamus. This was plaintiff's proper remedy. (*Code Civ. Proc.*, § 1094.5.) (See *Selby Realty Co. v. City of San Buenaventura* (1973) 10 Cal.3d 110, 123-124 [109 Cal.Rptr. 9, 514 P.2d 111]; *Scott v. City of Indian Wells* (1972) 6 Cal.3d 541, 546 [99 Cal.Rptr. 745, 492 P.2d 1137]; *Pfeiffer v. City of La Mesa* (1977) 69 Cal.App.3d 74 [137 Cal.Rptr. 804]; *Subriar v. City of Bakersfield* (1976) 59 Cal.App.3d 175 [130 Cal.Rptr. 853]. See also, Deering, C. Administrative Mandamus (Cont. Ed. Bar 1966) Administrative Mandamus as Exclusive Remedy, § 3.1, p. 21.)

The municipal court was without jurisdiction to entertain applications for extraordinary writs of administrative mandamus. (*5 *Cal. Const. art. VI, § 10*; *Code Civ. Proc.*, § 86; Witkin, *Cal. Procedure* (2d ed. 1971) *Extraordinary Writs*, § 130.)

The trial court fell into error by permitting the plaintiff to collaterally attack the order of the Board. Administrative decisions are not subject to collateral attack. (*Nelson v. Oro Loma Sanitary District* (1950) 101 Cal.App.2d 349, 357-358 [225 P.2d 573].) The plaintiff will not be permitted to circumvent the established avenue of mandamus review by seeking a judicial review in the municipal court of its claim to a vested right under the rental control law.³

In view of the conclusion that we have reached, it becomes unnecessary to consider defendants' other contentions of error.

The unlawful detainer judgments, and each of them, are reversed.

A petition for a rehearing was denied December 24, 1980. *6

Footnotes

- 1 A ruling favorable to plaintiff's petition would establish that its apartment building was not subject to the rent control act and consequently plaintiff could proceed with its plans to convert its property into condominiums. The reverse would be so in the event of an unfavorable response to Plaintiff's petition.

- 2 Section 1806 of the rent control I provided as follows: “No landlord shall bring any action to recover possession or be granted recovery of possession of a control rental unit unless:)
The landlord seeks to recover possession to demolish or otherwise remove the controlled rental unit from rental residential housing use after having obtained all permits from [the City]”
- 3 The recent decision in *Vargas v. Municipal Court* (1978) 22 Cal.3d 902 [150 Cal.Rptr. 918, 587 P.2d 714], does not compel a different holding. Under the facts in *Vargas, supra.*, the court held that e municipal court did not exceed its jurisdiction by proceeding in an unlawful retainer action while a related administrative proceeding was pending. Unlike *Vargas*, in the instant appeals the administrative action of the board was a condition precedent permitting the plaintiff to remove the apartment building from the rental market for the purpose of condominium conversion; moreover, in the instant appeals, the administrative decision was substantially final before the plaintiff elected to proceed with its unlawful detainer actions rather than to seek administrative mandamus review of the disputed board decision.

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101 Cal.App.2d 349, 225 P.2d 573

W. W. NELSON et al., Appellants,
v.
ORO LOMA SANITARY DISTRICT OF
ALAMEDA COUNTY et al., Respondents.

Civ. No. 14365.
District Court of Appeal, First
District, Division 1, California.
Dec. 22, 1950.

HEADNOTES

(1) Improvements-Public § 30--Reassessment.

A finding of the assessing board that the original assessment and bonds issued by a sanitary district under the Municipal Improvement Act of 1913 (Deering's Gen. Laws, Act 5215) were irregularly levied and unenforceable, and that the board therefore had jurisdiction to make a reassessment, cannot, in the absence of allegations of fraud or arbitrary action, be successfully questioned in a collateral proceeding, where the landowners affected did not appear and protest at the reassessment hearings.

See 19 **Cal.Jur.** 221.

(2) Improvements-Public § 30--Reassessment.

The power of the assessing board to make a reassessment under the Municipal Improvement Act of 1913 is not limited to the contingencies that a court has found that the original assessment proceedings are invalid or unenforceable or that a demand for reassessment has been made by property owners to bondholders.

(3) Improvements-Public § 30--Reassessment.

Although the Municipal Improvement Act of 1913 provides that a reassessment shall be made on the demand of bondholders or in the event of an adverse court decision, the Legislature did not thereby intend to deprive the assessing board of the power to make a reassessment on its own motion in accordance with applicable statutory provisions.

(4) Improvements-Public § 30--Reassessment.

In making a reassessment under the Municipal Improvement Act of 1913, the board is not bound by the original estimate

for cost of doing the work, but may proceed on the basis of a new estimate exceeding the original one.

SUMMARY

APPEAL from a judgment of the Superior Court of Alameda County. Donald K. Quayle, Judge. Affirmed.

Action for declaratory and injunctive relief. Judgment for defendants affirmed.

COUNSEL

John F. O'Sullivan for Appellants.

Kirkbride, Wilson, Harzfeld & Wallace for Respondents.

BRAY, J.

In a representative action for declaratory relief to declare void a reassessment levied, and to enjoin the issuance of bonds thereon by defendant sanitary district, the court held the reassessment and bonds valid. Plaintiffs appeal from the judgment in favor of defendants.

Question Presented

The primary question is whether the trial court and this court may go behind the board's finding of jurisdiction to make the reassessment.

Facts

In 1945, the district, in order to acquire rights of way and construct certain storm drainage work and improvements, levied an assessment of \$118,501.86 against the property of plaintiffs and approximately five hundred other landowners within a special assessment district. Of this sum, \$12,720.64 was paid in cash and the balance, \$105,781.82 was raised by *351 the issuance of bonds. The assessment was levied and the bonds issued under the provisions of the Municipal Improvement Act of 1913, Act 5215, Deering's General Laws. Contracts were let for the doing of the work. As frequently happens in public work, the cost of the project exceeded the estimates and the amount raised by the assessment. It is unnecessary to detail the reasons. The district paid out of its general fund the sum of \$71,084.55 over and above the amount of the assessment. To recover this amount for its general fund the district made the reassessment under attack here. This reassessment was made pursuant to section 18 of the 1913 act. No attack is made on the regularity of the reassessment proceedings so far as the mechanical steps and procedures required are concerned. It is claimed,

however, that the reassessment is void as the board had no jurisdiction to levy a reassessment for the reason that the original assessment proceedings were valid. The trial court found the reassessment valid and that bonds might be issued thereon; that the amounts of the reassessment were not arbitrary, discriminatory or unfair; that plaintiffs are barred from obtaining relief because of failure to appear and protest at the reassessment hearings; that this action is barred by sections 6 and 18 of the Municipal Improvement Act of 1913.

Applicable Sections of Improvement Acts

Section 18 of the 1913 act provides that the original assessment shall be recorded in the office of the district engineer of the district "in the manner and with like force and effect as provided in the Improvement Act of 1911 and the Improvement Bond Act of 1915, and the assessment therefor shall have the priority, and *the proceedings shall be subject to all of the curative clauses and powers of reassessments, provided in those acts. ...*" (Emphasis added.) Pursuant to this section the district followed the reassessment provisions of the 1911 and 1915 acts as they then existed. The Improvement Acts of 1911 and 1915 have been incorporated into the Streets and Highways Code. * Some of the pertinent portions follow: Section 5500 provides: "If any assessment heretofore or hereafter made, issued or filed in the office of the clerk is void or unenforceable for any cause or if bonds have been or are issued to represent or be secured by any assessments and such issuance was or is not effective through the curative provisions *352 in relation thereto, or any curative act that may be passed by the Legislature in relation thereto to make them valid and enforceable, then, in any of such events a reassessment therefor may be issued." Section 5501 provides: "The true intent and meaning of this chapter is to make the cost and expense of any work made through an attempted compliance with this division payable by the real estate benefited by such work by making a reassessment therefor." Section 5502 will be discussed later. Then follow sections setting forth the reassessment proceedings. Section 5366 provides for an appeal by any interested person to the district board from a reassessment. (While it does not specifically refer to reassessments, it includes them.) Section 5367 authorizes the board upon such appeal to correct or amend the assessment in any particular. Section 5368 provides: "All the decisions and determinations of the legislative body, upon notice and hearing as aforesaid, shall be final and conclusive upon all persons entitled to appeal to the legislative body, as to all errors, informalities, and irregularities which the legislative body might have avoided, or have remedied during

the progress of the proceedings or which it can at that time remedy."

If bonds are to be issued upon an assessment and after notice is given and a hearing had of protests, section 8596 provides: "If at the hearing the legislative body determines that any assessment is void and unenforceable, it shall order a reassessment. ..."

Section 8702 is practically identical with section 5500 except that the last sentence of section 8702 does not appear in section 5500. That sentence reads: "The reassessment shall be made upon the demand of the owner or holder of bonds aggregating one-third of the principal amount outstanding and shall be made in the manner and form provided by the law pursuant to which the work was done."

Jurisdiction of Board

(1) In resolution 354, entitled "Directing Making of Reassessment," the board found that the original assessment and bonds issued thereon were irregularly levied and unenforceable. Plaintiffs contend that the record of the original assessment proceedings shows on its face that the assessment and the bonds issued thereon were valid and enforceable, and hence the board did not have jurisdiction to make a reassessment. (The trial court found the particular steps taken by the board in the original assessment proceedings, but made *353 no finding as to their validity.) Defendants contend that the board's finding of jurisdiction is final and conclusive in a collateral attack of this kind, particularly against one who failed to protest the reassessment proceedings. Thus, we are required to decide whether in the absence of allegations of fraud or arbitrary action, the courts in a collateral attack may go behind the jurisdictional finding of the board. The authorities hold that the courts may not do so. The early case of *People v. Hagar*, 52 Cal. 171, was an action to collect an assessment levied by a swamp land district. In upholding the trial court in striking from the answers of the property owners who were contesting the assessments, certain denials of facts found by the board of supervisors in establishing the district, which facts the superior court found to be jurisdictional, the latter court stated that it was the duty of the board to pass upon these facts and having done so its judgment is conclusive, stating (p. 183): "These were jurisdictional facts which the Board necessarily determined in approving the petition, and its action is not open to attack in a collateral action. 'Whenever the jurisdiction of a Court not of record depends on a fact which the Court is required to ascertain and settle by its decision, such decision,

if the Court has jurisdiction of the parties, is conclusive, and not subject to any collateral attack.' (Freeman on Judgments, sec. 523; Bigelow on Estoppel, p. 142.)” This rule was followed in *Spaulding v. North San Francisco Homestead etc. Assn.*, 87 Cal. 40 [24 P. 600, 25 P. 249], in an action brought by an assignee of a street contractor against a property owner to recover the amount of an assessment for the grading of a street under the act of April 1, 1872. That act provided that no grading could be ordered by the supervisors unless a majority of the frontage of lots fronting on the proposed work was represented in the petition. The petition upon which the board acted was uncertain on its face as to whether a majority of the frontage was so represented. At the trial, the defendant offered to prove that the fact was that a majority were not represented. The trial court refused to admit the proof. On appeal, it was held that the action was proper; that in spite of the uncertainty of the allegations of the petition it was sufficient to give the board of supervisors jurisdiction to act upon it, and the determination by the board of the jurisdictional facts is conclusive against collateral attack. The court then refers to a provision in the act providing *354 a method for property owners to object and that the action of the board thereon “ ‘shall be final and conclusive.’

“This provision is intended to enable parties in interest to reach any irregularity or defect in the petition itself, or matter connected with the granting of it, and to be their only remedy. There is no evidence here that appellant ever availed itself of the opportunity thus given to be heard. It therefore waived all objections to the form of and the granting of the petition.” (P. 46.) This holding is important in our case because of similar provisions in the three acts involved.

In *People v. Los Angeles*, 133 Cal. 338 [65 P. 749], an action in quo warranto was brought to declare void the proceedings of the city council in annexing certain territory to the city. It was contended that the petition for annexation was not signed by the requisite number of electors. The court held that the jurisdiction of the council to act depended upon the petition being signed by the requisite number of electors; that this was a question of fact to be determined by the council, and its determination was conclusive, saying (p. 342): “ ‘An inferior board may determine conclusively its own jurisdiction or power, by adjudicating the existence of facts, upon the existence of which its jurisdiction or power depends. ...’ ”

A case directly in point is *Godber v. City of Pasadena*, 206 Cal. 90 [273 P. 30]. There the city levied an assessment under the procedure provided by the 1903 Street Opening Act. It later passed a resolution declaring the assessment

invalid and proceeded to make a reassessment. Plaintiff, a property owner affected, sought to enjoin the enforcement of the reassessment on the ground (the same as here) that the first assessment was a valid one. After pointing out a provision in the 1903 act (similar to provisions in the acts involved here) to the effect that the confirmation of the reassessment by the city council “ ‘shall be a final determination of all matters relating to the actual benefits derived or to be derived from the improvement by the respective lots ...’ ” the court said: “Appellant seems to overlook the fact that the court may take only a restricted view of the action of the city directors. We are required to look, therefore, upon the last action of the board with the same complacency that we would have looked upon the first assessment had there been no attempt to rescind it. The rules of law which guide the court in a proceeding of this character are well settled and are relied upon by both parties. The controlling principle, in a word, is that every *355 intendment must be indulged that can be in favor of the final action of the city directors and all doubts resolved in favor of the validity of the action so taken. The court will not hear the opinions of witnesses and other evidence in any subsequent issue involving the assessment in order to determine whether or not it can plainly see that the action taken by the municipality was or was not correct, but the court can only view such facts as appear on the record of the proceedings taken in the light of those further facts of which we may take judicial notice [Citations].” (P. 93.)

Plaintiffs mainly rely on two cases, one of which is *In re Madera Irrigation Dist.*, 92 Cal. 296 [28 P. 272, 675, 27 Am.St.Rep. 106, 14 L.R.A. 755]. There, the board of directors of the Madera Irrigation District filed in the superior court a petition for confirmation of their proceedings for the issue and sale of certain bonds of the district. That court confirmed the legality of the proceedings and bonds. Certain property owners appealed, contending, among other things, (1) that the bond required to accompany the petition for the formation of the district was so defective as to deprive the board of supervisors of jurisdiction to proceed. As to this the court said (p. 329): “The bond which was presented, although informal, was not invalid, and was of binding obligation upon those who had signed it. In such a case the determination of its sufficiency by the board of supervisors was as conclusive as their determination respecting the pecuniary responsibility of its signers, or the amount for which the bond should be given.” Plaintiffs can derive no comfort from this holding. (2) That the superior court did not require the district to prove that the petition for formation of the district was signed by the requisite number of property owners, but allowed in evidence the record of the board's proceedings which

contained a finding to that effect and refused to permit the introduction in evidence of the petition itself. The Supreme Court held that this action of the trial court was error, stating (p. 332): “Whether a petition had been presented to the board of supervisors of such a character as to give to that board jurisdiction to act in accordance with the provisions of the law in question, was an issue before the court to be determined by competent evidence. A declaration by the board of supervisors that such a petition had been presented, even though such declaration was spread upon their records was not competent evidence in this proceeding as it was only hearsay. No board or tribunal can obtain jurisdiction by its own *356 recital that it has jurisdiction.” However, the action in that case was a direct attack on the action of the board where here it is a collateral attack. The proceedings there were under the act of 1889 which expressly declared that the court alone (and not the board as in our case) should have power and jurisdiction to examine and determine the validity of all proceedings. The court further stated that this was not a collateral proceeding but a direct attack and compared it to a quo warranto proceeding in holding that the burden was on the district to prove the validity of its organization. The court expressly recognized the fact that the rule might be different in a collateral proceeding by saying (p. 332): “It may be held that when the question of such jurisdiction arises in some collateral proceeding, the act of the board in recognition of the sufficiency of the petition would be presumptive of such sufficiency. ...”

The other case mainly relied on by plaintiffs is *Raisch Imp. Co. v. Bonslett*, 28 Cal.App. 649 [153 P. 747] (Supreme Court denied a hearing). In 1910 the board of trustees of the town of Antioch, under the provisions of section 20 of the Vrooman Act, passed an ordinance accepting certain streets after their improvement under that act. Section 20 provided, in effect, that whenever any street had been constructed in a certain manner and had sewer, gas pipes and water pipes laid therein, such street could be accepted by the council by ordinance. The ordinance recited that gas pipes had been laid in the streets in question. It was an admitted fact in the case that the gas pipes had not been laid. In 1914 the board passed another ordinance stating that the recital in the 1910 ordinance was untrue and therefore the board was without jurisdiction to pass an ordinance accepting said streets, and repealed said ordinance. The board then initiated certain proceedings for the improvement of some of the streets mentioned in the 1910 ordinance. Under these proceedings a contract for doing the work was awarded to petitioner. Respondent superintendent of streets refused to sign the contract, basing his refusal upon the ground that having accepted the streets in the 1910

ordinance the board was without jurisdiction to order another improvement of the streets at the property owners' expense. Petitioner then sought a writ of mandate to compel him to sign. The court stated that the only question was the validity of the 1910 ordinance; that the jurisdiction of municipalities to improve streets at the property owners' expense was a limited one and under section 20 of the Vrooman Act required that *357 gas pipes be actually laid in a street before the city could accept it. * In answer to the respondent's contention that the courts are bound by the recital in the ordinance the court relied upon the statement in *In re Madera Irrigation District*, *supra* (92 Cal. 296): “No board or tribunal can properly obtain jurisdiction by its own recital that it has jurisdiction.” But, as pointed out in *People v. Los Angeles*, *supra*, p. 343 (133 Cal. 338), the situation in the *In re Madera* case was a peculiar one. There the act under which the proceedings to confirm the district's bonds was brought provided “that 'the court shall have power and jurisdiction to examine and determine the legality and validity of ... each and all the proceedings for the organization of said district, ... from and including the petition for the organization of the district.' ” (Emphasis added.) The court there found that the petition was not signed by a majority as the law required. Thus it appears that the *In re Madera* proceeding was a *direct* attack on the proceedings and the language concerning jurisdiction was proper. “The proceeding was special, and was so declared by the act.” (*People v. Los Angeles*, *supra*, at p. 343 [133 Cal. 338].) Hence the court in the *Raisch* case considered the attack on the ordinance as a *direct* and not a *collateral* attack. An examination of the cases in California concerning the finality of the findings of tribunals of the type here shows that it is only where the lack of jurisdiction appears on the face of the proceedings that a collateral attack may be made, as, for example, where the record shows that the statutory notice of a required hearing has not been given. The word jurisdiction is a much misused one. These tribunals have jurisdiction of the proceedings if the statutory steps have been taken, and then have the authority to pass upon the facts requisite to support the final action taken. If the board makes a wrong determination of those facts, the remedy is by a direct appeal from that determination. In many cases, as in the acts involved here, an appeal to the board is provided, and in all cases, of course, there may be a direct appeal to the courts. In our case, plaintiffs did not avail themselves of either remedy, nor did they appear at the board hearings. An examination of the various acts involved shows that it was the intention of the Legislature to make the board's action as to the determination of facts final. Thus under the 1911 act a hearing *358 on the reassessment must be had, and notice thereof given. Section

5501 states: "The true intent and meaning of this chapter is to make the cost and expense of any work made through an attempted compliance with this division payable by the real estate benefited by such work by making a reassessment therefor." Section 5003 provides: "This division shall be liberally construed in order to effectuate its purposes. No error, irregularity, informality, and no neglect or omission of any officer, in any procedure taken under this division, which does not directly affect the jurisdiction of the legislative body to order the work or improvement, shall avoid or invalidate such proceeding or any assessment for the cost of work done thereunder. The exclusive remedy of any person affected or aggrieved thereby shall be by appeal to the legislative body in accordance with the provisions of this division." Section 8620 of the 1915 act which provides the procedure for issuance of the bonds provides: "All of the decisions and determinations of the legislative body upon the objections and matters submitted at the hearing, shall be final and conclusive upon all persons who were entitled to appear at the hearing." Section 8594 provides that any owner of property affected by the assessment may appear and "set forth his objections, or any reason which he may have why bonds should not be issued upon the security of the unpaid assessments. He may show any act or determination done or made in the proceeding whereby he is aggrieved and any act or thing done in the proceeding which may be irregular, defective, erroneous or faulty, and may set forth what assessments are unpaid and what assessments have been paid. *If he claims that the legislative body does not have jurisdiction to issue the bonds he shall set forth the ground upon which his contention is made.*" (Emphasis added.)

While, of course, jurisdiction in the strict sense cannot be obtained by a mere recital, it is apparent from the above sections that the Legislature intended the board's determination to be final. As said in *People v. Los Angeles, supra*, at p. 342 (133 Cal. 338), in quoting from Wells on Jurisdiction, section 61: "Where the jurisdiction of even an inferior court is dependent on a fact which that court is required to ascertain and settle by its decision, such decision is held conclusive." See, also, *Godber v. City of Pasadena, supra* (206 Cal. 90). The language in 19 California Jurisprudence, page 221, although referring to other street improvement acts, applies here: "Upon the hearing, the council sits as a quasi *359 court of appeal, and may confirm, modify or correct the assessment or it may order a new assessment. Action by the council is final and conclusive, unless it be shown that the council refused to decide, upon the merits, objections urged against an assessment, and, instead thereof, willfully based its order

upon illegal considerations which were inconsistent with making an assessment in proportion to benefits to be derived from the improvement, and which in effect amounted to fraud upon the rights of the property owners."

It must be pointed out that the finality of the board's findings may be questioned where it is directly charged that its action was the result of fraud. (See *Cake v. City of Los Angeles*, 164 Cal. 705 [130 P. 723].) Here there is no such charge in the complaint. Plaintiffs contend that some of the language of their complaint indicates such a charge. However, an examination of the complaint discloses a complete absence of the particularity of allegations of fraud which the law requires, and which are necessary in order that the trial court might find on the subject.

Prior Proceedings

Plaintiffs contend that the trial court found that the prior proceedings were valid. The court found the steps taken by the board in the original assessment proceedings. However, it did not find that these steps constituted a valid assessment proceeding. Assuming, however, that the findings could be interpreted as plaintiffs interpret them, they do not change the situation for the reason, as pointed out before, that the court had no power to go behind the finding of the board that those proceedings were invalid.

Conditions for Reassessment

(2) In interpreting the reassessment provisions, plaintiffs contend, in effect, that a board has no authority to make a reassessment unless (1) a court has found that the assessment proceedings are invalid or unenforceable, or (2) that a demand for reassessment has been made by property owners or bondholders. This contention is based upon the fact that in some of the provisions for reassessment it is provided that reassessments *shall* be made in the above contingencies. However, the right to make the reassessment is not confined exclusively to those situations. Section 8702 provides that if any assessment is void or unenforceable for any cause, or if the issuance of bonds thereon is not effective through the curative provisions *360 to make them valid and enforceable, then a reassessment *may* be made. It *shall* be made upon the demand of one-third of the bondholders. Section 5500 provides that if the assessment is void or unenforceable or if the issuance of bonds is ineffectual a reassessment *may* be issued. Section 5501 then sets forth that the true intent of the chapter is to make the cost of any work through an attempted compliance with the provisions of the division payable by the real estate benefited by the

work by making a reassessment therefor. Section 5502 (one of the sections upon which plaintiffs rely for their contention) provides that a reassessment *shall* be made (1) on the request of certain bondholders; (2) when a court has declared the assessment or bonds, or the lien thereof, or the contract for doing the work, void or unenforceable. (3) It is obvious from a reading of the above sections that in providing that a reassessment *shall* be made on the demand of bondholders or in the event of an adverse court decision, the Legislature did not intend to deprive the board of the right on its own motion under the authority granted by the sections stating that reassessment *may* be made, to make such reassessment. *Gray v. Lucas*, 115 Cal. 430 [47 P. 354], and *Westall v. Altschul*, 126 Cal. 164 [58 P. 458], cited by plaintiffs, are not in point. In both cases the court was considering street improvement acts which confined the right of reassessment to a situation where a court had first determined the original assessments to be illegal.

Cost of Work

(4) The \$71,084.55 for which the reassessment was made exceeded to that extent the original estimate for doing the work. Likewise, some of the costs incurred were not included

in the original specifications. Plaintiffs contend that nothing can be included in the reassessment that was not in the original estimate for doing the work or in the specifications. Under present conditions, to hold that a reassessment cannot be made for the cost in excess of the original estimate would practically prohibit the doing of any public work. In the face of ever changing costs of labor and materials, it is almost impossible to estimate accurately the cost of a particular improvement. Moreover, unforeseen difficulties frequently arise in the doing of the work, and changes must be made in the specifications. Undoubtedly the Legislature had this in mind when it enacted section 5501 making the cost and expense of the work payable by the real estate benefited. The basis of the reassessment is the existence of a completed work. (See *Cowart v. Union *361 Paving Co.*, 216 Cal. 375, 382 [14 P.2d 764].) Moreover, as to the items considered in making the reassessment, plaintiffs' exclusive remedy is "by appeal to the legislative body in accordance with the provisions of this division." (§ 5003.) (See §§ 5368, 8620.) The judgment is affirmed.

Peters, P. J., and Wood (Fred B.), J., concurred.

Footnotes

- * The 1911 act is found in sections 5000 through 6794, Streets and Highways Code; the 1915 act in sections 8500 through 8851.
- * The act provided for an alternative not applicable to the facts of the case.

End of Document

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Attachment 27



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

May 8, 2009

Mark Smythe
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3338

Dear Mr. Smythe:

Pursuant to the Santa Ana Regional Water Board's May 1, 2009 notice, the following are EPA's comments on section XII.C.2 of the May 1 "Fourth Draft" Orange County Municipal Stormwater permit.

We appreciate that there has been extremely valuable progress on this permit. A few additional changes to the permit's Low Impact Development (LID) provisions are necessary in order to provide clarity and avoid future disputes over the interpretation of these LID requirements.

1. As you know, on April 21, 2009, EPA provided suggested revisions to section XII.C.2 of the April 10 "Third Draft." Based on some of the questions raised about the edited text, in the interest of clarity, we believe section XII.C.2 should be revised to:

"The permittees shall reflect in the WQMP and otherwise require that each priority development project infiltrate, harvest and reuse, capture or evapotranspire the 85th percentile storm event ('design capture volume'), as specified in Section XII.B.4.A.1 above. Compliance with the permit's LID requirements may also be achieved by implementation of the alternatives specified in section XII.C.7 or by implementation of an approved waiver under section XII.E."

2. Section XII.C.2 of the May 1 Fourth Draft uses the term "bio-filter." The exact meaning of this term is unclear, and its use may not be necessary. For example, in some circumstances there is not a distinction between infiltration and biofiltration. In some EPA guidance, "bioretention" is used as an example of an infiltration technique. While we would support the text in footnote 56, we believe additional clarification is needed if the term "bio-filter" is included. Footnote 56 refers to "properly engineered and maintained" biofiltration systems. Criteria for the design and operation of these systems should be specified to ensure that the permit does not create a loophole which allows the use of systems that are inconsistent with LID principles. These specific design and operation criteria could be included in the permit. Alternatively, the permit could be revised to require the preparation of these biofiltration criteria as part of the feasibility criteria required pursuant to section XII.E.

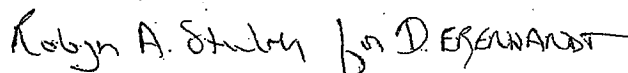
-2-

3: The text in section XII.C.2 refers to section XII.C.7 as a means for compliance. Sections XII.C.7.b, c, and d require that pervious areas have the capacity to "infiltrate, harvest and re-use, evapotranspire or treat at least the design capture volume." (emphasis added) The term "or treat," is not clear, and may not be necessary. Again, this could create a loophole that would allow the use of systems inconsistent with LID principles. We believe "or treat" should either be deleted from this section, or it should be defined. Should the Board decide to retain this concept, the word "treat" could be revised to "biotreat." Under this scenario, the hierarchy included in footnote 56 should be applied to the use of the term "biotreat" in this section, and the design and operation criteria described in comment #2 would apply.

4. Section XII.C.2 includes references to section XII.E. We understand some parties may have concerns with the project-specific waiver provisions in section XII.E. As a fundamental matter, we believe that the number of projects requiring waivers will be relatively small. If a project cannot manage the design capture volume as described in section XII.C.2; there generally should be broad opportunities to take advantage of the compliance opportunities available under section XII.C.7 to implement LID on a sub-regional or regional basis. As currently drafted, the permit requires that waivers issued pursuant to section XII.E be approved by the Executive Officer. Although we are supportive of the existing text in section XII.E, we would be open to revisions that do not require Executive Officer approval for waivers. It would still be necessary for the principal permittee to submit feasibility criteria for the Executive Officer's approval, and for individual projects to undergo a rigorous feasibility analysis pursuant to the approved feasibility criteria. The permit could be revised to provide the responsibility for approving project-specific waivers to the principal permittee. The permit would need to require that all requests for waivers, feasibility analyses, waiver justification documentation, and waiver conclusions be included in the principal permittee's annual report to the Regional Board.

Thank you for your continued efforts to develop a clear and protective permit. If you'd like to discuss these comments, please contact John Tinger at (415) 972-3518, or Eugene Bromley at 415-972-3510.

Sincerely,



Douglas E. Eberhardt, Chief
NPDES Permits Office

Attachment 28



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

February 13, 2009

Michael Adackapara
Division Chief
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Re: Draft MS4 Permit for Orange County and Incorporated
Cities within Orange County (NPDES Permit No. CAS618030)

Dear Mr. Adackapara:

The following are EPA Region 9's comments on the November 10, 2008 "First Draft" of the renewed Areawide Urban Stormwater Permit for Orange County and incorporated cities within Orange County within the jurisdiction of the Santa Ana Regional Water Quality Control Board.

EPA is generally supportive of the approach taken by the Santa Ana Regional Board in the draft permit. The following comments are informed by our review of other Municipal Separate Storm Sewer System (MS4) permits throughout our Region, and our review of the implementation of these permits via audits of nearly 50 MS4 programs.

The renewed Orange County MS4 permit will be the fourth permit issued for these municipal stormwater discharges. It is appropriate for the permit provisions to evolve based on lessons learned from past permits. The renewed permit is an opportunity to include clear permit provisions that support water quality benefits. Our comments concern two aspects of the draft permit.

1. Implementation of Low Impact Development (LID) Requirements

EPA agrees with the draft permit's approach for incorporating LID techniques, also known as green infrastructure. On a national level, EPA is advocating LID as an approach to stormwater management that is cost-effective, sustainable, and environmentally-sound. Ongoing efforts to promote the use of these techniques are described in EPA's January 2008 Action Strategy for Managing Wet Weather with Green Infrastructure. Materials regarding EPA's policies in this area can be found at: <http://cfpub.epa.gov/npdes/greeninfrastructure/information.cfm#greenpolicy>.

On page 20 of 89 of the draft permit, Finding #62 states, "The USEPA has determined that by limiting the effective impervious area of a development site to 5% or less, downstream impacts can be minimized." While it is true that EPA agrees that limiting effective impervious area (EIA) to 5% or less will have positive impacts on water quality,

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EPA has not made a determination that the 5% EIA concept is necessarily the only or always the best method to implement LID. We recommend replacing Finding #62 with the following:

“USEPA has determined that LID/green infrastructure can be a cost-effective and environmentally preferable approach for the control of stormwater pollution that will minimize downstream impacts by limiting the effective impervious area of development. LID and the reduction of impervious areas may achieve multiple environmental and economic benefits in addition to reducing downstream water quality impacts, such as enhanced water supplies, cleaner air, reduced urban temperatures, increased energy efficiency and other community benefits such as aesthetics, recreation, and wildlife areas. EPA has reviewed studies¹ that have evaluated the % EIA concept and we believe that it is a reasonable and effective metric for incorporating LID principles into stormwater permits.”

EPA's primary objective for incorporating LID into renewed MS4 permits, especially for those representing the fourth generation of permits regulating these discharges, is that the permit must include clear, measurable, enforceable provisions for implementation of LID. In our review of MS4 programs in our Region, we have found it common for permits to rely on the development of plans to achieve certain permit controls, rather than including clearly prescriptive requirements in the permits. While the permittees generally make significant and sincere efforts in their development of these plans, the plans often result in a reliance on qualitative provisions rather than specific measurable criteria. As a result, we've often found uncertainty among both the MS4 permittees and the permitting agencies as to specific permit controls. The incorporation of LID techniques into MS4 permits provides an opportunity to establish clear, measurable performance measures for the implementation of LID.

Section XII of the draft permit, entitled “New Development (Including Significant Re-Development),” appropriately sets a 5% EIA limit as a means for measuring the utilization of site controls, including LID techniques, for limiting stormwater runoff. This section of the draft permit also appropriately includes measurable requirements for controlling hydromodification by comparing post-development runoff to pre-development flows. EPA is in agreement with these permit provisions. While these approaches are not the only means available for including measurable requirements for the implementation of LID and the control of hydromodification in municipal stormwater permits to promote water quality improvements, EPA is supportive of the approaches you've chosen. We understand there is an alternative proposal to include a specific, measurable design storm volume which must be managed using LID techniques. Conceptually, we are supportive of such an approach, although we would be

¹ See for example the analysis prepared by Dr. Richard Horner entitled “Investigation of the Feasibility and Benefits of Low-Impact Site Design Practices (“LID”) for Ventura County” submitted to the Los Angeles Regional Board by NRDC.

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interested in reviewing specific permit language. We would not support replacing these approaches with qualitative provisions that do not include measurable goals.

We support the concept of alternatives and in-lieu programs for LID outlined in section XII.E. However, this section should be restructured to require that these waiver programs be approved prior to their utilization. If a permittee intends to grant waivers, they should be required to first establish the water quality credit system described in section XII.E.3. Section XII.E.3 should be moved to the beginning of section XII.E (thus renumbered as XII.E.1). The permit should require that any credit system that the permittees establish must (not "should") be submitted to the Executive Officer for review and approval. Any approved alternative programs should include measurable requirements, consistent with our comments above regarding the need for clear, measurable and enforceable permit conditions. In the section which is currently section XII.E.1 (which would become XII.E.2) the first sentence should be revised to note that if a BMP is not feasible, the permittee may grant a waiver pursuant to their approved Credit System.

2. Incorporation of Total Maximum Daily Loads (TMDLs)

The permit appropriately includes the relevant TMDLs, but the permit should more explicitly state that the wasteload allocations (WLAs) established by these TMDLs are intended to be enforceable permit effluent limitations and that compliance is a permit requirement. As a general matter, it is also our view that the permit language should clarify what monitoring will be done to determine compliance with WLAs. We recognize that the permit includes several different sections which describe monitoring efforts. However, with respect to the specific TMDLs described in section XVIII, the requirements for monitoring receiving waters (and end-of-pipe monitoring for sediments) are not always clear. If required monitoring to determine compliance with WLAs is specified in existing, separate monitoring plans, these existing plans should be clearly identified. With respect to existing plans, there should be confirmation that the plans clearly identify what monitoring will be conducted, and that monitoring results will enable the Board to clearly determine compliance with WLAs. If these referenced plans have not yet been prepared, the permit should contain required plan submittal dates, along with the expectations for the content of the plans to enable the Board to determine compliance with WLAs.

To further support WLA requirements in the permit, we recommend that Finding #52 for the permit include the following statement: "NPDES regulations at 40 CFR 122.44(d)(1)(vii)(B) require that permits be consistent with Waste Load Allocations (WLAs) approved by EPA. In the case of this permit, where there are EPA-approved TMDLs for waters in Orange County, this permit must incorporate provisions consistent with the WLAs associated with municipal stormwater, aka "urban runoff," from these TMDLs."

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Section XVIII.B (technical TMDLs with no implementation plans)

- i. Please note that the parenthetical statement in section XVIII.B.1.c should refer to paragraph 2, not paragraphs 4 & 5.
- ii. In section XVIII.B.2, the permit references the Newport Bay/San Diego Creek organochlorine (OC) compounds TMDLs adopted by the Regional Board in September 2007. Despite having been adopted by the Regional Board, these TMDLs and the implementation plan have not yet been submitted to the State Board for approval. Until they are submitted to the State Board, and in turn approved by the State Board, OAL, and EPA, they are not applicable. Rather, the permit should recognize that the EPA TMDLs adopted in June 2002 are the currently applicable TMDLs.
- iii. Based on our review of the Newport Bay/San Diego Creek TMDLs, it appears that the concentrations in Tables 1A/1B do not accurately reflect the WLAs for urban runoff in EPA's 2002 TMDLs. In addition to correcting these Tables, the permit should clarify that the WLAs are intended to be enforceable effluent limits. Compliance with the WLAs could be required in accordance with the time frame envisioned by the Board's implementation plan since this would be consistent with the intent of the EPA TMDLs.
- iv. This section currently requires activities (the Regional Monitoring Plan (RMP) and Toxicity Reduction and Investigation Program (TRIP)) geared toward compliance with the Regional Board's as-yet unapproved OC TMDLs. These activities are similar to those contemplated for compliance with EPA's OC TMDLs. However, it should be confirmed that the monitoring results will enable determinations regarding compliance with the approved and currently applicable EPA TMDLs. Monitoring plans must clearly identify monitoring locations, the frequency of required monitoring, and required submittal of monitoring results. As recommended by the EPA TMDL, the monitoring plan should include water column and sediment monitoring. In addition, fish tissue monitoring should be included (if not already in the existing plan) since this was identified as an important environmental indicator in EPA's TMDL.
- v. The permit should include conditions consistent with the WLAs for metals and selenium established by EPA in June 2002 for Newport Bay, San Diego Creek and the Rhine Channel. The description of the selenium TMDL for Newport Bay on page 67 describes selenium as naturally occurring. However, the TMDL suggests that selenium loads are made up of both naturally occurring and anthropogenic sources. The permit's required monitoring of selenium should not be limited to sources of naturally occurring selenium. Section XVIII.B.3 of the permit mentions that revised TMDLs for selenium are being developed by the Regional Board, but until the revised TMDLs and implementation plan are approved, the WLAs from the existing TMDLs are applicable. The EPA TMDLs for selenium and metals do not include a compliance deadline, but rather suggest a phased, iterative approach for compliance with the WLAs. Consistent with the recommendations of the EPA TMDLs, we suggest the permit require the

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development and submittal of a compliance plan (with an implementation schedule) to the Board by the permittees. Detailed requirements for a monitoring program to determine compliance with the WLAs, including monitoring locations, frequency of sampling, and reporting should also be required.

vi. Section XVIII.B.3 of the permit refers to the activities and plans underway for revised nutrient TMDLs. We understand that these ongoing activities are focused on revisions to the nutrient TMDL implementation plan, not the TMDLs themselves. The permit should be corrected accordingly.

vii. Section XVIII.B.3 of the permit lays out an open-ended approach to the development of a monitoring plan for selenium and nitrogen. A specific deadline for the submittal of the monitoring plan should be included in the permit.

viii. We support the approach provided for incorporating the Coyote Creek WLAs, by establishing a date certain for submittal of a source control plan and monitoring plan. The permit should clarify the monitoring plan must include the frequency of sampling, and any other details to be required in using the collected data to determine compliance with WLAs.

Section XVIII.C (TMDLs beyond the permit term)

Tables 5a and 5b (in section XVIII.C.1) contain errors in that the first two rows of each table both include, "Total Maximum Daily Load for Fecal Coliform." It appears that one of these rows should present the WLA for urban runoff. The permit should also clarify that the urban runoff WLAs are intended to be permit effluent limits; we suggest that language be added to the permit such as: "The permittees shall comply with the wasteload allocations for urban runoff in Tables 5a and 5b in accordance with the deadlines in Tables 5a and 5b."

Section XVIII.D (TMDLs with compliance schedules within the permit term)

i. The permit (section XVIII.D.1) should clarify that the diazinon and chlorpyrifos WLAs are intended to be permit effluent limits; we would suggest that language be added to the permit such as: "The permittees shall comply with the following wasteload allocations in Tables 6a and 6b." Immediate compliance should be required unless an alternate date is provided in the implementation plan. We would also recommend that the fact sheet discuss the current compliance status of the permittees with the WLAs; given the phase-out of these pesticides within urban areas, compliance may have already been achieved.

ii. Regarding the nutrient TMDLs, the fact sheet (page 9) indicates the current and future targets for nutrients are already being met. In contrast, the permit (page 71) indicates that

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the *overall* allocations have been met, leaving questions about the urban runoff WLA. Recent monitoring reports submitted to the Regional Board show that the urban runoff allocations for both the total nitrogen and total phosphorus loads are not currently being met. This discrepancy should be clarified in the fact sheet. Further, the permit should be clarified to indicate that the urban runoff WLAs in the Tables 7, 8 and 9 are intended to be permit effluent limits.

iii. Regarding the Newport Bay sediment TMDL, the permit should include firm dates for the submittal of monitoring data presenting the 10-year running averages.

Section XVIII.E.2 refers to "numeric effluent limits." For clarity, and for consistency with the rest of section XVIII, we suggest this be revised to: "Based on the TMDLs, numeric effluent limits have been specified to ensure consistency with the wasteload allocations."

We appreciate the opportunity to provide our views on this draft permit. If you'd like to discuss these comments, please contact John Tinger of the NDPES Permits Office at (415) 972-3518, or Eugene Bromley of the NPDES Permits Office at (415) 972-3510.

Sincerely,



Douglas E. Eberhardt, Chief
NPDES Permits Office

Attachment 29



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

APR 10 2008

Ms. Tam M. Doduc, Chair
Ms. Dorothy R. Rice, Executive Director
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Dear Ms. Doduc and Ms. Rice:

I understand that certain specific provisions of the 2001 Municipal Separate Storm Sewer System ("MS4") permit for the County of Los Angeles have been called into question as going beyond what is required under section 402(p) of the CWA. (Commission on State Mandates, File Nos. 03-TC-04, 03-TC-19, 03-TC-20, and 03-TC-21.) The permit conditions at issue are: 1) the requirements for conducting inspections at industrial and commercial facilities including, restaurants and automobile servicing, [Parts 4.C.2.a. and b.] and, 2) the requirement for permittees not subject to the Trash TMDL to locate and maintain trash receptacles at transit stops [Part 4.F.5.c.3.]. California RWQCB, Los Angeles Region, Order No. 01-182, NPDES No. CAS004001 (Dec. 13, 2001). This letter discusses these permit conditions in the context of EPA's expectations for MS4 permits.

Section 402(p) of the Clean Water Act, 33 U.S.C. 1342(p), requires EPA (or authorized states) to issue National Pollutant Discharge Elimination System ("NPDES") permits to regulate the discharge of stormwater from MS4s. Typically, these MS4s are owned and operated by cities and counties. Pursuant to the Clean Water Act, these permits must require the MS4 to: 1) "effectively prohibit" non-stormwater discharges, and 2) "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)(ii) and (iii).

The NPDES regulations require medium and large MS4s to develop stormwater management programs that the permitting authority will consider when developing permit conditions to reduce pollutants in discharges to the maximum extent practicable. Stormwater permitting has generally relied on the use of best management practices ("BMPs"), including both structural and non-structural controls, for achieving compliance with these requirements. The EPA also expects stormwater permits to follow an iterative process whereby each successive permit becomes more refined, detailed, and expanded as needed, based on experience under the previous permit. See, 55 Fed. Reg. 47990, 48052 ("EPA anticipates that storm water management programs will evolve and mature over time."); 64 Fed. Reg. 68722, 68754 (Dec. 8, 1999) ("EPA envisions application of the MEP standard as an iterative process."); Interim Permitting Approach for Water Quality-Based Effluent Limitations in Stormwater Permits (Sept. 1, 1996) ("The interim permitting approach uses BMPs 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"). See also, "Evaluating the Effectiveness of Municipal Stormwater Programs" (January 2008) (http://www.epa.gov/npdes/pubs/region3_factsheet_swmp.pdf). While the standard of "maximum extent practicable" (MEP) allows for flexibility, that flexibility is not boundless and requires some level of vigor. EPA has created a national menu of stormwater BMPs to provide additional guidance concerning appropriate BMPs for stormwater management plans. Other factors to consider in ensuring appropriate controls include "technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness." Building Indus. Ass'n v. State Water Res. Control Bd., 124 Cal. App. 4th 866, 889 (2004). See also "In re Cities of Bellflower, et al.", SWRCB 2000-11.

At the outset, I note the Los Angeles MS4 permit is a third generation Phase I MS4 permit that should be building upon the experiences from previous permits. Both of the provisions at issue here seem well within a reasonable expectation of controls that reduce pollutants to the "maximum extent practicable." EPA regulations at 40 C.F.R. §122.26(d)(2)(iv) set forth the basic elements to be included in a Phase I MS4's stormwater management program. Subparagraph (A) requires a description of "source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the [MS4] that are to be implemented during the life of the permit." Subparagraph (B) requires a program for detection and removal of illicit discharges and improper disposal into the storm sewer, including a program for inspections and enforcement. A program for commercial and industrial facility inspection and enforcement that includes restaurants and automobile facilities, would appear to be both practicable and effective. Such an inspection program ensures that stormwater discharges from such facilities are reducing their contribution of pollutants and that there are no non-stormwater discharges or illicit connections. Thus these programs are founded in both 402(p)(3)(B)(ii) and (iii) and are well within the scope of 40 C.F.R. §122.26(d)(2)(iv)(A) and (B).¹

Similarly, maintaining trash receptacles at all public transit stops is well within the scope of these regulations. Among the minimum controls required to reduce pollutants from runoff from commercial and residential areas are practices for "operating and maintaining public streets, roads, and highways . . ." §122.26(d)(2)(iv)(A)(3). I believe these requirements are also practical and effective.² Moreover, this permit provision is consistent with EPA's national menu


¹EPA's "MS4 Program Evaluation Guidance" (January 2007) envisions that an MS4 permit would include a requirement for an inspection program for common industrial/commercial businesses, such as restaurants and gas stations, within the jurisdiction of the MS4. Id. at 76 - 77, 81. The inspection requirements of the LA MS4 permit are consistent with the recommended activities in the Guide.

²The provision applicable to the TMDL permittees is also clearly consistent with EPA's 2002 guidance on TMDLs and storm water permitting. "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit

of BMPs for stormwater management programs, which recommends a number of BMPs to reduce trash discharges. See <http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=5>. Among the recommendations is "improved infrastructure" for trash management when necessary, which includes the placement of trash receptacles at appropriate locations based on expected need. The requirements of the Los Angeles County MS4 permit are consistent with this recommendation. See also, "MS4 Program Evaluation Guidance" (January 2007) at pp. 50, 79. EPA's expectations of the programs to reduce pollutants to the maximum extent practicable specifically refer to control of litter and trash, regardless of whether the particular receiving water is already impaired for trash.

I hope that this explanation helps clarify EPA's expectations for MS4 permit requirements under the Clean Water Act. I look forward to continuing to work with the State on our shared goal of ensuring consistency and effectiveness in storm water permitting as a vital tool in protecting the quality of our waters. Should you have further questions about these issues, please have your staff contact Douglas Eberhardt of my staff at (415) 972-3420 or have your counsel's office contact Laurie Kermish of the Office of Regional Counsel at (415) 972-3917.

Sincerely,

 10 April 2008
Alexis Strauss
Director, Water Division

cc: Mr. Michael Lauffer, Chief Counsel
State Water Resources Control Board

Ms. Paula Higashi, Executive Director
Commission on State Mandates

Requirements Based on Those WLAs" (November 22, 2002) which is available at:
http://cfpub.epa.gov/npdes/pubs.cfm?program_id=6

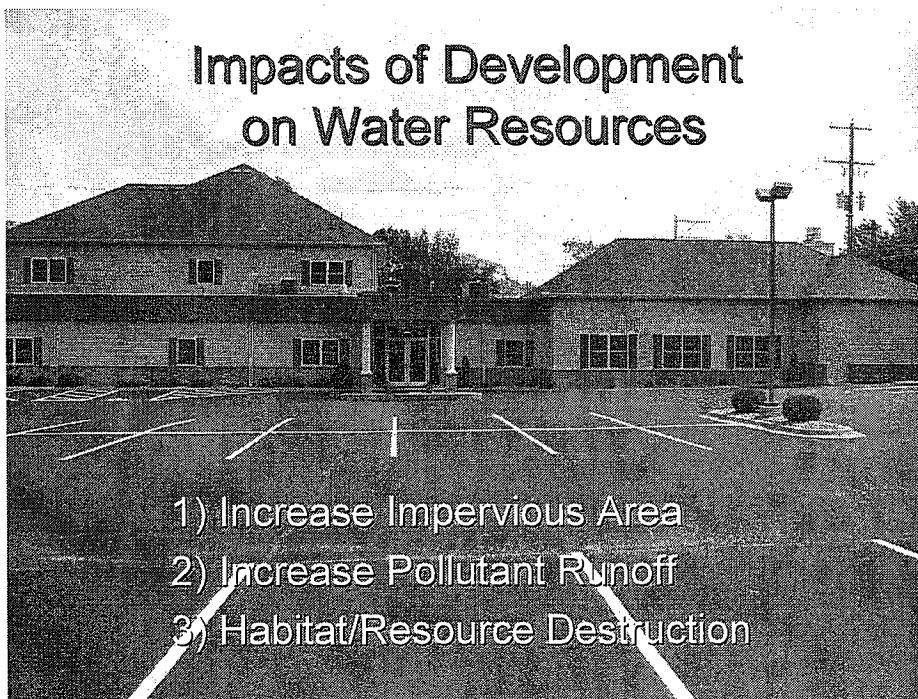
Attachment 30

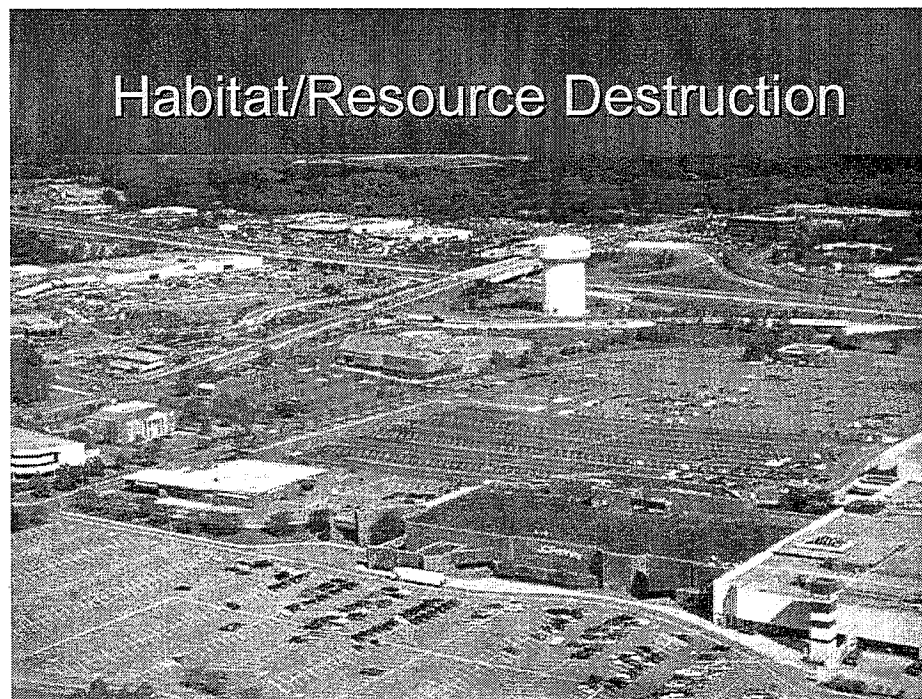
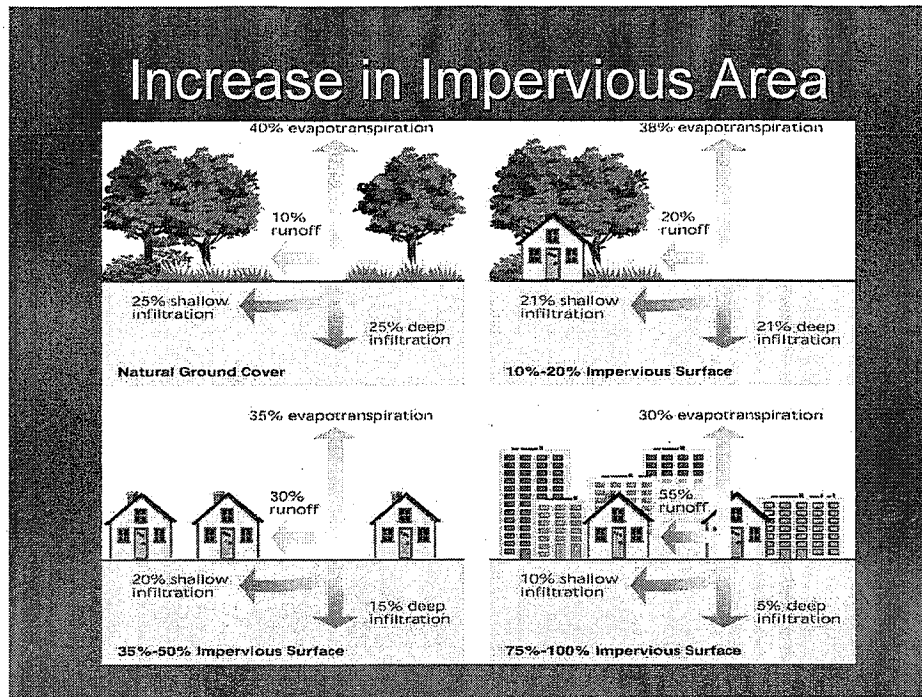
Hydromodification: A Regulatory Perspective

Dr. Cindy Lin
US EPA Region 9
Sept 4, 2008



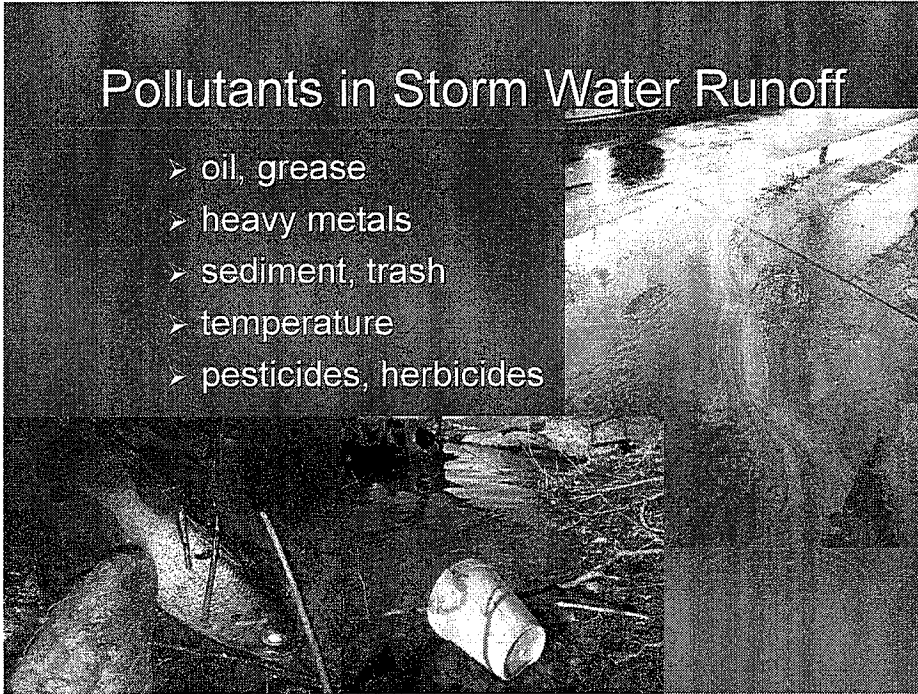
Impacts of Development on Water Resources





Pollutants in Storm Water Runoff

- oil, grease
- heavy metals
- sediment, trash
- temperature
- pesticides, herbicides



Impacts

- Changes to the natural hydrology, drainage
- Land cover changes, increased overland flow
- Physical impacts on receiving streams
- Transports pollutants that have collected on impervious surfaces
- Diminished Infiltration, interception and evapotranspiration rates

Increase in Impervious Area

- Erosion
- Loss of pool & riffles
- Loss of vegetation & riparian canopy
- Decrease in dry weather flow regime



Storm Water Management

- Management of storm water has primarily relied on BMP implementation for limiting pollutant levels in MS4 effluent.
- No specificity in permits on the compliance requirements.
- Appropriate in the past because lack of knowledge on tools and technology.
- But, storm water control efforts have not been successful; water quality goals not achieved

Objectives

- Achieve water quality improvements
- Reduce pollutant discharges
- Improve management of storm water (LID tools)
- Minimize alteration of hydrologic characteristics of waters (storm water discharge, velocities, or duration are maintained or reduced)
- Minimize flow
- Prevent increased erosion, protect habitat in natural drainage systems



EPA Recommendations

- Use Low Impact Development to minimize storm water generation, thus reducing storm water pollution, mimic natural hydrology
- Advocate green infrastructure as an approach to wet weather management that is cost-effective, sustainable, and environmentally sound

Low Impact Development (Green Infrastructure)

- New approach to stormwater management
- Cost-effective
- Sustainable
- Environmentally friendly



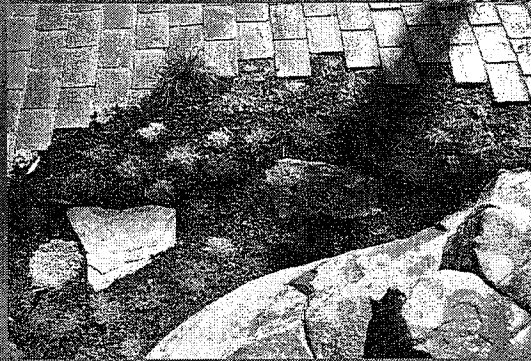
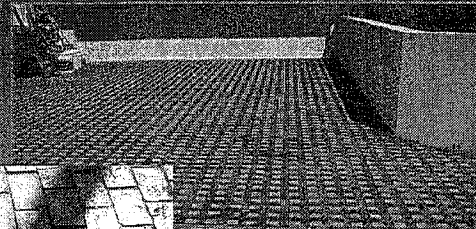
Low Impact Development Concepts

- Preserve environmentally sensitive areas
- Reduce sources of pollution
- Minimize impervious areas
- Remove direct connections
- Utilize Natural systems



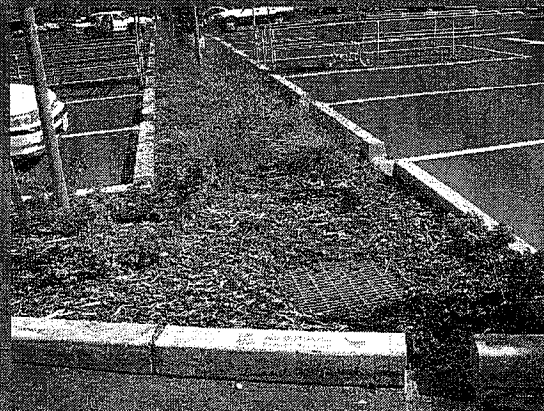
LID: Minimize impervious areas

- Permeable and porous pavement



Porous pavement
& raingarden

LID: Parking Lots Infiltration, Retention



Parking lot treatment- vegetative buffer strip

Green Infrastructure

- Utilize natural systems & engineered systems to:
 - mimic natural landscapes,
 - capture, cleanse and reduce stormwater runoff using plants, soils and microbes

- Maximize Stormwater
 - Infiltration
 - Evapotranspiration
 - Storage for re-use

Tools to Minimize Hydromodification

- Implement LID strategies to increase infiltration (limits on effective impervious area)
- Hydromodification BMPs (e.g., post construction BMPs)
- In-stream restoration
- Develop, implement watershed-specific hydromodification control strategies

Metrics to Minimize Hydromodification

- New developments include buffer zones a certain distance from riparian zones or water.
- New development, redevelopment projects must establish a post-development water balance which replicates pre-project runoff (e.g., porous pavements, tree planting)

Examples

- No change Pre- and Post- Development (RB 8)
- 5% EIA (Ventura County MS4 Permit)
- Hydromodification Management Plan (SD County MS4 Permit)
- 12% impervious cover cap (Barberry Creek TMDL, Maine)
- New Jersey, Portland, Seattle, Washington D.C., Maryland

Barberry Creek TMDL, Maine

- Impairment due to pollutant (metals) and non-pollutant (stream habitat, baseflow) stressors related to storm water runoff from developed areas
- Sources of storm water from City of South Portland & overland runoff from a highly urbanized drainage area
- Existing Load = 23% IC
- **TMDL: Total extent of impervious cover (%IC) in watershed capped at 12%**



EPA Region 9

- Advocates LID strategies:
 - Infiltrate, evapotranspire, capture and reuse storm water to maintain or restore natural hydrologies and improve water quality
- **Encourage permitting agencies to incorporate LID provisions into MS4 permits as clear, enforceable, measurable requirements which result in water quality improvements**

LID Resources

- www.epa.gov/NPDES/GreenInfrastructure
- California Stormwater Quality Association
BMP Handbooks. www.CASQA.org
- www.lowimpactdevelopment.org
- "Start at the Source" - Bay Area
Stormwater Management Agencies
- Alameda Countywide Clean Water
Program Site Design Guidebook
 - www.BASMAA.org

Thank You

LID: Reduce sources of pollution

Site design to contain or treat/recycle washwater

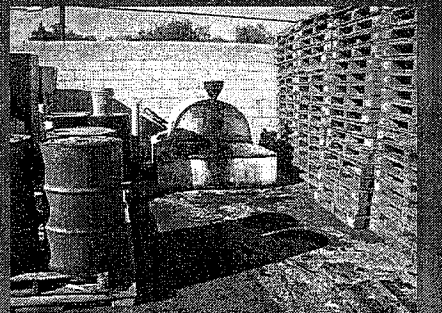
- Restaurant Areas –
- Vehicle washing area –

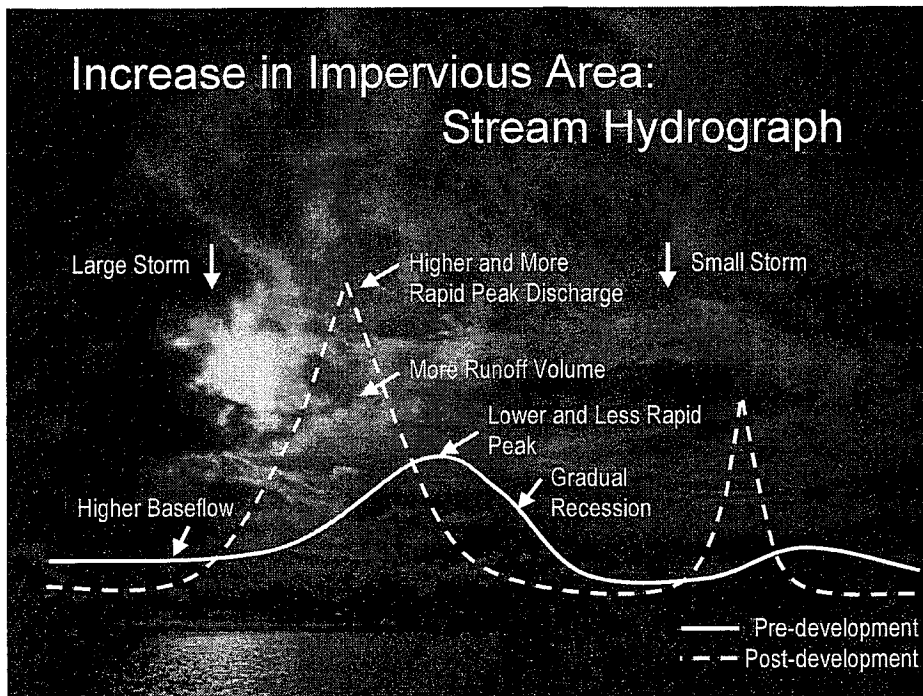


LID: Reduce sources of pollution

Site Design to prevent exposure
(shed/cover) or contain and treat washwater

- Material Storage -
- Trash dumpsters -
- Fueling area -





LID: Preserve environmentally sensitive areas

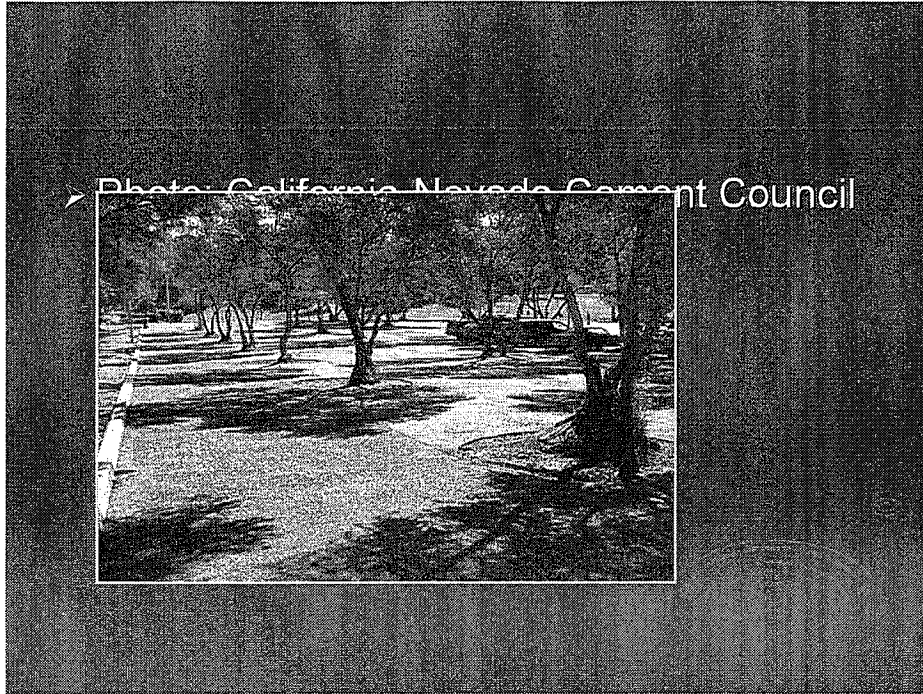
- Wetlands
- Stream Buffers
- Springs
- Habitat areas/native vegetation
- Maintain natural drainage paths
- Mature trees



Pollutants Generated from:

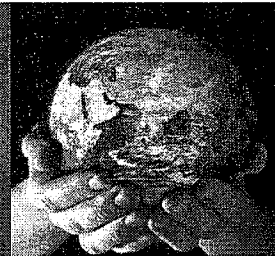
- Construction
- Parking lots
- Maintenance areas
- Material storage areas
- Restaurant washing
- Trash storage





Multiple Benefits

- Reduce pollutants
- Maintain natural hydrograph
- Cost Effective
- Increase property values
- Climate change
- Maintain habitat



LID: Remove Direct Connections



Parking lot drains to swale

Disconnect Roof Drains



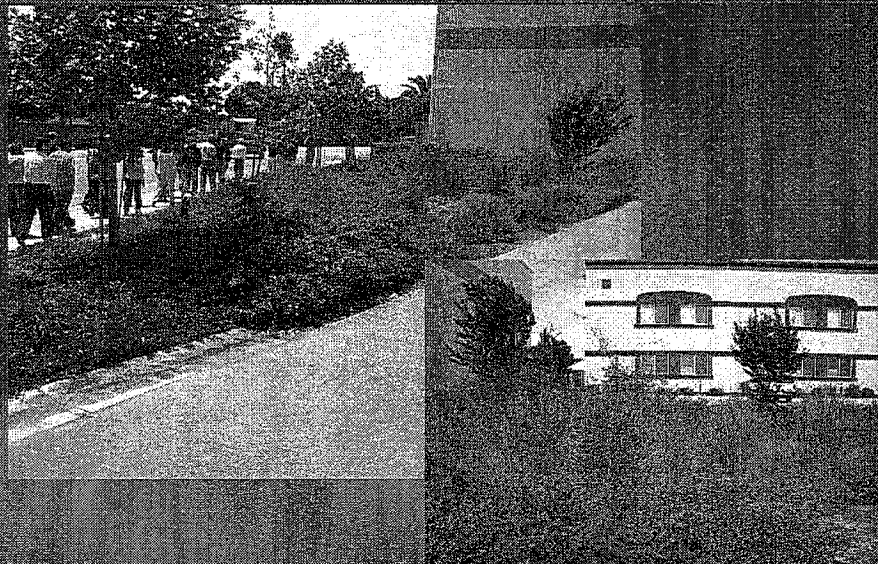
Photo from Alameda Countywide
Clean Water Program

LID: Parking Lots Infiltration, Retention

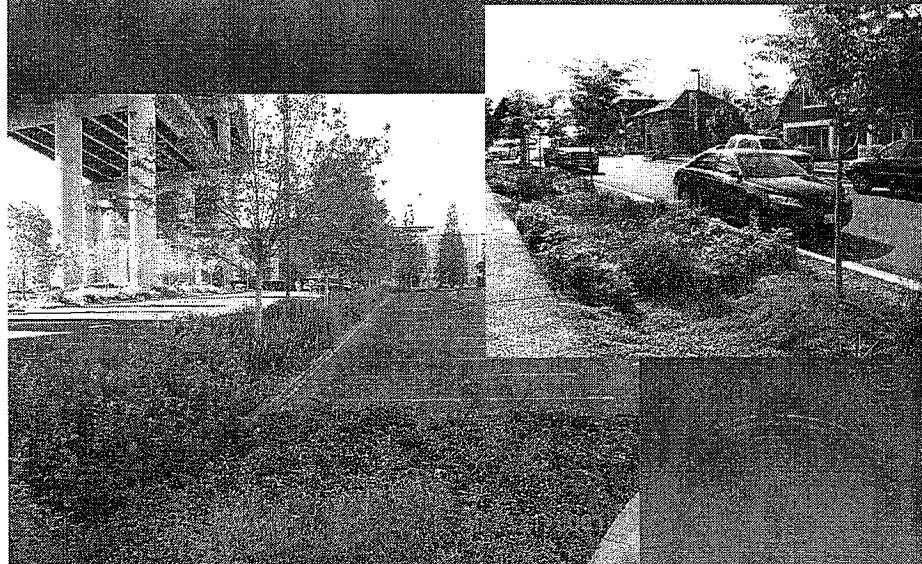


Grassy Swale

LID: Bioretention, Raingardens



LID: Bioretention, Raingardens



Attachment 31

California Regional Water Quality Control Board
Santa Ana Region

RESOLUTION NO. 99-10

A Resolution Amending the Water Quality Control Plan
for the Santa Ana River Basin
to Establish a Total Maximum Daily Load for Fecal Coliform Bacteria
in Newport Bay

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. An updated Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Regional Board on March 11, 1994, approved by the State Water Resources Control Board (SWRCB) on July 21, 1994 and approved by the Office of Administrative Law on January 24, 1995.
2. Water contact recreation (REC1) and shellfish harvesting (SHEL) are among the beneficial use designations specified in the Basin Plan for Newport Bay.
3. The Basin Plan includes numeric water quality objectives for fecal coliform bacteria in Newport Bay. For the protection of the water contact recreation beneficial use, these objectives specify that Newport Bay shall not contain fecal coliform in excess of a 5 sample/month log mean of 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period. To protect the shellfish harvesting beneficial use, the Basin Plan also requires that Newport Bay have a median fecal coliform density of less than 14 MPN (most probable number)/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.
4. These objectives for fecal coliform are not being consistently met in Newport Bay. Discharges of fecal coliform waste adversely impact beneficial uses by causing the Orange County Health Care Agency to close beach areas to body contact recreation, and/or to post notices to avoid body contact recreation. Shellfish harvesting is also banned in Upper Newport Bay. In part in response to these problems, the Regional Board listed Newport Bay as water quality limited in accordance with Section 303(d) of the Clean Water Act. Section 303(d) of the Clean Water Act requires the establishment of the Total Maximum Daily Load (TMDL) of fecal coliform that can be discharged while still ensuring compliance with water quality standards. Section 303(d) also requires the allocation of this TMDL among sources of fecal coliform, together with an

implementation plan and schedule that will ensure that the TMDL is met and that compliance with water quality standards is achieved.

5. The Regional Board discussed this matter at public workshops held on December 11, 1998 and January 15, 1999, after notice was given to all interested persons in accordance with Section 13244 of the California Water Code. Based on that discussion and the testimony received, the Board directed staff to prepare the appropriate Basin Plan amendment and related documentation to establish a TMDL for fecal coliform in Newport Bay. The Board considered the proposed Basin Plan amendment during a public hearing held on March 5, 1999, and continued the public hearing until April 9, 1999.
6. The TMDL-related Basin Plan amendment attached to this resolution meets the requirements of Section 303(d) of the Clean Water Act. The amendment requires the implementation of Best Management Practices (BMPs) to control bacterial inputs to provide a reasonable assurance that water quality standards will be met.
7. The Regional Board prepared and distributed written reports (staff reports) regarding adoption of the Basin Plan amendment in compliance with applicable state and federal environmental regulations (California Code of Regulations, Section 3775, Title 23, and 40 CFR Parts 25 and 131).
8. The process of basin planning has been certified by the Secretary for Resources as exempt from the requirements of the California Environmental Quality Act (Title 14, Section 15251g of the California Code of Regulations) to prepare an Environmental Impact Report or Negative Declaration. The Basin Plan amendment package includes an Environmental Checklist, an assessment of the environmental impacts of the Basin Plan amendment, and a discussion of alternatives. The amended Basin Plan, Environmental Checklist, staff reports, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.
9. The Regional Board has considered federal and state antidegradation policies and other relevant water quality control policies and finds the Basin Plan amendment consistent with those policies.
10. On April 9, 1999, the Regional Board held a Public Hearing to consider the Basin Plan amendment. Notice of the Public Hearing was given to all interested persons and published in accordance with Water Code Section 13244.

11. The Basin Plan amendment must be submitted for review and approval by the SWRCB, the Office of Administrative Law (OAL), and the U.S. Environmental Protection Agency. Once approved by the SWRCB, the amendment is submitted to OAL. A Notice of Decision will be filed after the SWRCB and OAL have acted on this matter. The SWRCB will forward the approved amendment to the U.S. Environmental Protection Agency for review and approval.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Regional Board adopts the amendment to the Water Quality Control Plan for the Santa Ana River Basin (Region 8) as set forth in the attachment.
2. The Executive Officer is directed to forward copies of the Basin Plan amendment to the SWRCB in accordance with the requirement of Section 13245 of the California Water Code.
3. The Regional Board requests that the SWRCB approve the Basin Plan amendment in accordance with Sections 13245 and 13246 of the California Water Code and forward it to the Office of Administrative Law for approval.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on April 9, 1999.

Gerard J. Thibeault
Executive Officer

Attachment to Resolution No. 99-10

Amendment to the Santa Ana Region Basin Plan

Chapter 5 - Implementation Plan, Discussion of Newport Bay Watershed (page 5-39 et seq.)

(Language deleted is struck out; language added is underlined)

3. Bacterial Contamination

Bacterial contamination of the waters of Newport Bay can directly affect two designated beneficial uses: water-contact recreation (**REC-1**) and shellfish harvesting (**SHEL**). The Orange County Health Care Agency (OCHCA) conducts routine bacteriological monitoring and more detailed sanitary surveys as necessary, and is responsible for closure of areas to recreational and shellfish harvesting uses if warranted by the results.

Because of consistently high levels of total coliform bacteria, the upper portion of Upper Newport Bay (Upper Bay) has been closed to these uses since 1974. In 1978, the shellfish harvesting prohibition area was expanded to include all of the Upper Bay, and the OCHCA generally advises against the consumption of shellfish harvested anywhere in the Bay. Bacterial objectives established to protect shellfish harvesting activities are rarely met in the Bay. (Fecal coliform objectives for the protection of shellfish harvesting and water-contact recreation are shown in Chapter 4, "Enclosed Bays and Estuaries". The OCHCA has relied on total coliform standards specified in the California Health and Safety Code. Fecal coliform are a subset of total coliform.) A number of storm channels empty into the Upper Bay and appear to be the principal sources of the high bacterial (coliform) concentrations. Statistical evaluation of the long term data shows a significant reduction in bacterial concentrations in the Upper Bay in recent years. This reduction may be associated, at least in part, with the excavation of the in-bay basins, which have significantly increased tidal flushing. Certain areas in the lower parts of the Upper Bay and in Lower Newport Bay (Lower Bay) are also closed to water-contact recreation on a temporary basis, generally in response to storms. In these areas, there is generally good compliance with water-contact recreation bacterial objectives in the summer.

~~Certain areas in the Lower Bay also show frequent high bacterial concentrations, particularly those locations which are subject to urban runoff and have limited tidal flushing. As in the Upper Bay, more violations of bacterial standards generally occur during storm runoff periods than during dry weather. However, an additional and more significant source of bacterial input contributes to these violations on occasion. This source is the discharge of vessel sanitary wastes.~~

Data collected by the OCHCA demonstrate that tributary inflows, composed of urban and agricultural runoff, including stormwater, are the principal sources of coliform input to the Bay. As expected, there are more violations of bacterial standards in the Bay during wet weather, when tributary flows are higher, than in dry weather. There are few data on the exact sources of the coliform in this runoff. Coliform has diverse origins, including: manure fertilizers which may be applied to agricultural crops and to commercial and residential landscaping; the fecal wastes of humans, household pets and wildlife; and other sources. Special investigations by OCHCA have demonstrated that food wastes are a significant source of coliform. Many restaurants wash down equipment and floor mats into storm drains tributary to the Bay and may improperly dispose of food waste such that it eventually washes into the Bay. Such discharges likely contribute to the chronic bacterial quality problems in certain parts of the Bay.

Another source of bacterial input to the Bay is the discharge of vessel sanitary wastes. Newport Bay has been designated a no-discharge harbor for vessel sanitary wastes since 1976. Despite this prohibition, discharges of these wastes have continued to occur. Since these wastes are of human origin, they pose a potentially significant public health threat.

The Regional Board, the City of Newport Beach (City), the County of Orange, the City of Newport Beach Harbor Quality Committee, and other parties have taken or stimulated actions to enforce the vessel waste discharge prohibition. The principal focus of these efforts has been to make compliance with the prohibition convenient and therefore more likely. Vessel waste pumpouts have been installed at key locations around the Bay and are inspected routinely by the OCHCA. A City ordinance addresses people-intensive boating activities to ensure proper disposal of that sanitary wastes, are appropriately disposed. The ordinance requires that sailing clubs, harbor tour, and boat charter operations install pumpouts for their vessels. Another City ordinance addresses vessel waste disposal by persons living on their boats. Efforts have also been made to ensure that there are adequate public rest rooms onshore. The City also sponsors an extensive public education campaign designed to advise both residents and visitors of the discharge prohibition, the significance of violations, and of the location of pumpouts and rest room facilities. The effectiveness of these extensive vessel waste control efforts is not known.

As noted, the fecal waste of wildlife, including waterfowl that inhabit the Bay and its environs, is a source of coliform input. The fecal coliform from these natural sources may contribute to the violations of water quality objectives and the loss of beneficial uses, but it is currently unknown to what extent these natural sources contribute to, or cause, the violations of bacterial quality objectives in Newport Bay.

Reports prepared by Regional Board staff describe the bacterial quality problems in the Bay in greater detail and discuss the technical basis for the fecal coliform TMDL that follows (21, 22). Implementation of this TMDL is expected to address these

bacterial quality problems and to assure attainment of water quality standards, that is, compliance with water quality objectives and protection of beneficial uses.

3.a. Fecal Coliform TMDL

A prioritized, phased approach to the control of bacterial quality in the Bay is specified in this TMDL. This approach is appropriate, given the complexity of the problem, the paucity of relevant data on bacterial sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the SHEL use in the Bay. The phased approach is intended to allow for additional monitoring and assessment to address areas of uncertainty and for future revision and refinement of the TMDL as warranted by these studies.

Table 5-9f summarizes the TMDL, Waste Load Allocations (WLAs) for point sources of fecal coliform inputs and Load Allocations (LAs) for nonpoint source inputs. As shown, the TMDL, WLAs and LAs are established to assure compliance with water contact recreation standards no later than (14 years after State approval of the TMDL)* and with shellfish standards no later than (20 years after State approval of the TMDL)*. WLAs are specified for vessel waste and urban runoff, including stormwater; the quality of which is regulated under a County-wide NPDES permit issued by the Regional Board. This runoff is thus regulated as a point source, even though it is diffuse in origin. LAs are specified for fecal coliform inputs from agricultural runoff, including stormwater, and natural sources. The TMDL is to be adjusted, as appropriate, based upon completion of the studies contained in Table 5-9g. Upon completion of these studies, an updated TMDL report will be prepared summarizing the results of the studies and making recommendations regarding implementation of the TMDL. The results of the studies may lead to recommendations for changes to the TMDL specified in Table 5-9f to assure compliance with existing Basin Plan standards (objectives and beneficial uses). The study results may also lead to recommendations for changes to the Basin Plan objectives and/or beneficial uses. If such standards changes are approved through the Basin Plan amendment process, then appropriate changes to the TMDL would be required to assure attainment of the revised standards. Revision of the TMDL, if appropriate, would also be considered through the Basin Plan amendment process.

Upon completion and consideration of the studies and any appropriate Basin Plan amendments, a plan for compliance with the TMDL specified in Table 5-9f, or with an approved amended TMDL, will be established. It is expected that this plan will

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

specify a phased compliance approach, based on consideration of such factors as geographic location, the priority assigned by the Regional Board to specific locations for control actions (see Section 3.a.ii, "Beneficial Use Assessment"), season, etc. Interim WLAs, LAs and compliance dates that lead to ultimate compliance with the TMDL will be established.

The TMDL and its allocations contain a significant margin of safety. The margin of safety can be either incorporated implicitly through analytical approaches and assumptions used to develop the TMDL or added explicitly as a separate component of the TMDL. A substantial margin of safety is implicitly incorporated in the TMDL in the fact that the TMDL does not apply criteria for dilution, natural die-off, and tidal flushing. The TMDL, WLAs, and LAs are established at concentrations equivalent to the water quality objectives.

Table 5-9f: Total Maximum Daily Load, Waste Load Allocations, and Load Allocations for Fecal Coliform in Newport Bay

Total Maximum Daily Load for Fecal Coliform in Newport Bay	Waste Load Allocations for Fecal Coliform in Urban Runoff, including stormwater. Discharges to Newport Bay	Load Allocations for Fecal Coliform in Agricultural Runoff, including stormwater. Discharges to Newport Bay	Load Allocations for Fecal Coliform from Natural Sources in all Discharges to Newport Bay	Waste Load Allocations for Vessel Waste
<p>As soon as possible but no later than (14 years after State TMDL Approval)</p> <p>5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.</p>	<p>5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.</p>	<p>5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.</p>	<p>In Effect</p> <p>5-Sample/30-days Geometric Mean less than 200 organisms/100 mL, and not more than 10% of the samples exceed 400 organisms/100 mL for any 30-day period.</p>	<p>In Effect</p> <p>0 MPN/100 mL No discharge.</p>
<p>As soon as possible but no later than (20 years after State TMDL Approval)</p> <p>Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.</p>	<p>Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.</p>	<p>Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.</p>	<p>Monthly Median less than 14 MPN/100 mL, and not more than 10% of the samples exceed 43 MPN/100 mL.</p>	<p>In Effect</p> <p>0 MPN/100 mL No discharge.</p>

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As soon As Possible but No Later Than
Task 1	Routine Monitoring Program (Section 3.a.ii.a) a) <u>Submit Proposed Routine Monitoring Plan(s)</u> b) <u>Implement Routine Monitoring Plan(s)</u> c) <u>Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)</u>	a) <u>(Within 30 days)²</u> b) <u>Upon Regional Board Approval of Plan(s)</u> c) <u>Monthly within 30 days. Annual Report by September 1</u>
Task 2	Water Quality Model for Bacterial Indicators (Section 3.a.ii.b) a) <u>Submit Proposed Model Development Plan</u> b) <u>Submit Calibrated Model and Model Documentation</u>	a) <u>(Within 30 days)²</u> b) <u>13 months after Regional Board approval of plan(s)</u>
Task 3	Beneficial Use Assessment Plan (Section 3.a.ii.c) Submit Proposed Assessment Plan for: a) <u>REC-1</u> b) <u>SHEL</u>	a) <u>(Within 30 days)²</u> b) <u>(Within 13 months)²</u>
Task 4	Beneficial Use Assessment Report (3.a.ii.c) Submit Beneficial Use Assessment Report for: a) <u>REC-1</u> b) <u>SHEL</u>	a) <u>13 months after Regional Board approval of plan(s)</u> b) <u>13 months after Regional Board approval of plan(s)</u>
Task 5	Source Identification and Characterization Plan(s) (Section 3.a.ii.d) Submit Proposed Source Identification Plans for: a) <u>The Dunes Resort</u> b) <u>Urban Runoff (including stormwater)</u> c) <u>Agriculture (including stormwater)</u> d) <u>Natural Sources</u>	a) <u>(Within 60 days)²</u> b) <u>(Within 60 days)²</u> c) <u>(Within 3 months)²</u> d) <u>(Within 3 months)²</u>

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates	
<u>Task</u>	<u>Description</u>
<u>Task 6</u>	<p>Source Identification and Characterization Reports (Section 3.a.ii.d) Submit Source Identification and Characterization Reports for:</p> <ul style="list-style-type: none"> a) <u>The Dunes Resort</u> b) <u>Urban Runoff (including stormwater)</u> c) <u>Agriculture (including stormwater)</u> d) <u>Natural Sources</u>
<u>Task 7</u>	<p><u>Evaluation of Vessel Waste Program (Section 3.a.ii.e)</u></p> <ul style="list-style-type: none"> a) <u>Submit Proposed Plan for Evaluating the Current Vessel Waste Program</u> b) <u>Submit Report on the Evaluation of the Vessel Waste Program</u>
<u>Task 8</u>	<p><u>TMDL, WLA, and LA Evaluation and Source Monitoring Program (Section 3.a.ii.f)</u></p> <ul style="list-style-type: none"> a) <u>Submit Proposed Evaluation and Source Monitoring Program Plan(s)</u> b) <u>Implement Evaluation and Source Monitoring Plan(s)</u> c) <u>Submit Monthly and Annual Reports (Reporting Period: April 1-March 31)</u>
<u>Task 9</u>	<p><u>Updated TMDL Report</u> Submit updated TMDL report for:</p> <ul style="list-style-type: none"> a) <u>REC-1</u> b) <u>SHEL</u>

<u>Compliance Date-As Soon As Possible but No Later Than</u>
<ul style="list-style-type: none"> a) <u>7 months after Regional Board approval of plan(s)</u> b) <u>13 months after Regional Board approval of plan(s)</u> c) <u>16 months after Regional Board approval of plan(s)</u> d) <u>16 months after Regional Board approval of plan(s)</u>
<ul style="list-style-type: none"> a) <u>(Within 3 months)²</u> b) <u>12 months after Regional Board approval of plan</u>
<ul style="list-style-type: none"> a) <u>3 months after completion of Tasks 2, 4a, and 6</u> b) <u>Upon Regional Board approval of plan(s)</u> c) <u>Monthly within 30 days, Annual Report by September 1</u>
<ul style="list-style-type: none"> a) <u>6 months after completion of Tasks 2, 4a, 6, and 7</u> b) <u>6 months after completion of Tasks 2, 4b, 6, and 7</u>

Table 5-9g: Fecal Coliform Implementation Plan/Schedule Report Due Dates

Task	Description	Compliance Date-As Soon As Possible but No Later Than
Task 10	Adjust TMDL, if necessary, adopt interim WLAs, LAs, and Compliance Dates (Section 3.a.ii.h) a) REC-1 b) SHEL	a) 12 months after completion of Updated TMDL Report for REC-1 (Task 9.a) b) 12 months after completion of Updated TMDL Report for SHEL (Task 9.b)
<p>¹Note: Provided that the monitoring program plan(s) fulfills the minimum requirements specified in this TMDL, approval of the TMDL shall constitute Regional Board approval of the monitoring program plan(s).</p> <p>²Note: Within specified time periods of State TMDL approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law). Upon State TMDL approval, this parenthetical "formula" will be replaced by the date certain, based upon the date of approval.</p>		

3.a.i. TMDL Implementation

As soon as possible but no later than the dates specified in Table 5-9g, the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach and agricultural operators in the Newport Bay watershed shall submit the plans and schedules shown in Table 5-9g and described in Section 3.a.ii. Subsequent phases of TMDL implementation shall take into account the results of the monitoring and assessment efforts required by the initial study phase of the TMDL implementation plan and other relevant studies.

The following sections describe the requirements for the submittal of plans by dischargers in the Newport Bay watershed to complete specific monitoring, investigations and analyses. In each and every case, the plans submitted by the named dischargers will be considered for approval by the Regional Board at a duly noticed public hearing as specified in Chapter 1.5, Division 3, Title 23 of the California Code of Regulations (Section 647 et seq.). The plans are to be implemented upon Regional Board approval and completed as specified in Table 5-9g.

3.a.ii. Monitoring and Assessment

Routine monitoring and special investigations and analyses are an important part of this phased TMDL. Routine monitoring is necessary to assess compliance with the bacterial quality objectives in the Bay and with the WLAs and LAs specified in the TMDL. Special investigations and analyses are needed to identify and characterize sources of fecal coliform input and to determine their fate in the Bay so that appropriate control measures can be developed and implemented. The effectiveness of current and future bacterial control measures needs to be evaluated. The results of these studies may warrant future changes to this TMDL.

3.a.ii.a. Routine Monitoring

By (30 days after State TMDL approval)* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for routine monitoring to determine compliance with the bacterial quality objectives in the Bay. At a minimum, the proposed plan shall include the collection of five (5) samples/30-

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

days at the stations specified in Table 5-9h and shown in Figure 5-1 and analysis of the samples for total and fecal coliform and enterococci. Reports of the collected data shall be submitted monthly. An annual report summarizing the data collected for the year and evaluating compliance with the water quality objectives shall be submitted by September 1 of each year.

In lieu of this coordinated, regional monitoring plan, one or more of the parties identified in the preceding paragraph may submit an individual or group plan to conduct routine monitoring in areas solely within their jurisdiction to determine compliance with the bacterial objectives in the Bay (if appropriate). Any such individual or group plans shall also be submitted by (30 days after State TMDL approval). Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with water quality objectives shall be submitted by September 1 of each year.

The monitoring plan(s) shall be implemented upon Regional Board approval.

Table 5-9h

Newport Bay Sampling Stations for Routine Compliance Monitoring with Bacterial Quality Objectives (see Figure 1 for Station Locations)

Ski Zone	33rd Street	Park Avenue
Vaughns Launch	Rhine Channel	Via Genoa
Northstar Beach	De Anza	Alvarado/Bay Is.
Abalone Avenue	Promontory Pt.	10th Street
Dunes East	Bayshore Beach	15th Street
Dunes Middle	Onyx Avenue	19th Street
Dunes West	Garnet Avenue	Lido Island Yacht Club
Dunes North	Ruby Avenue	Harbor Patrol
43rd Street	Sapphire Avenue	N Street Beach
38th Street	Newport Blvd. Bridge	Rocky Point
San Diego Creek @ Campus Dr.	Santa Ana Delhi Channel	Big Canyon Wash
Backbay Dr. Drain		

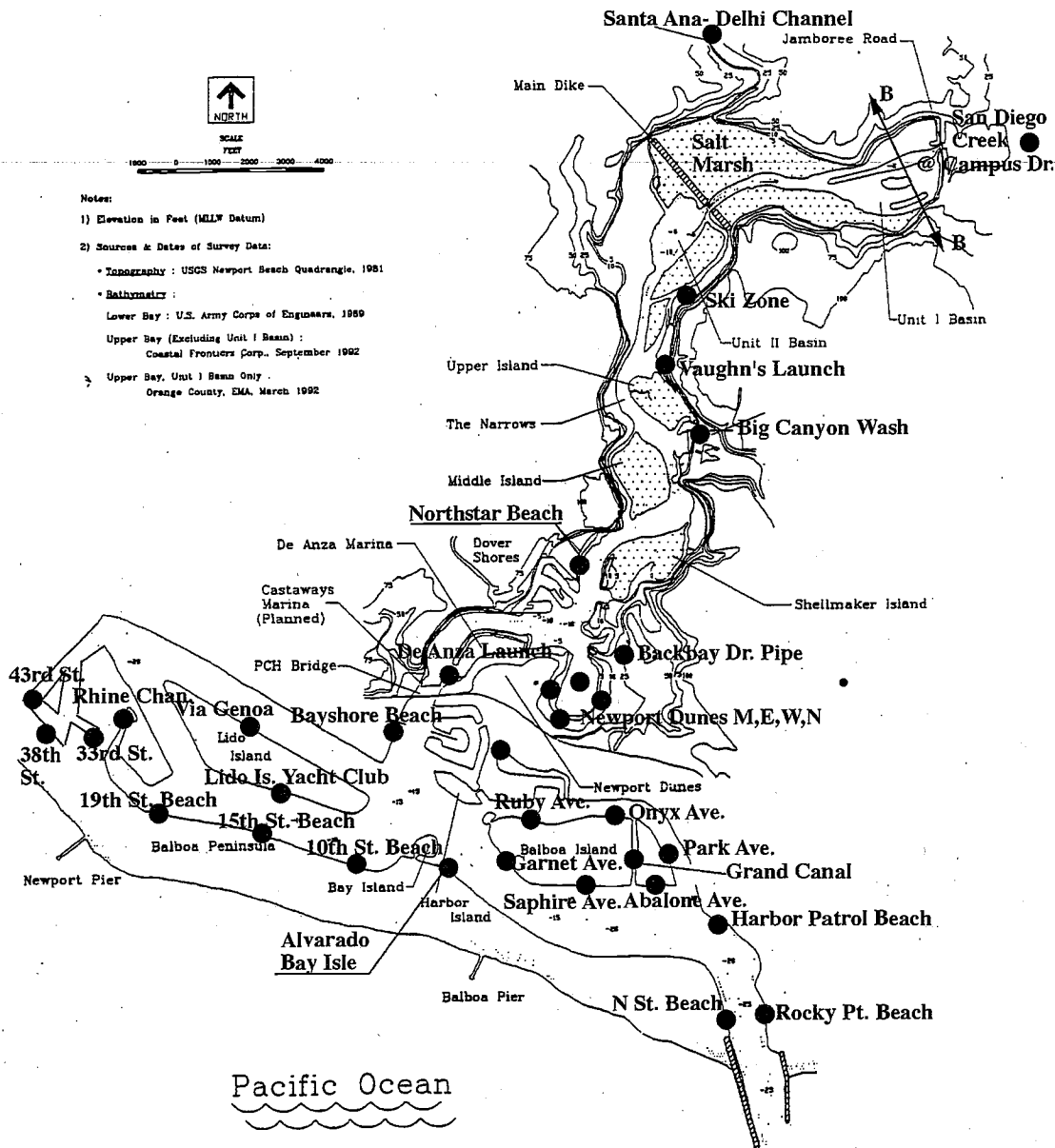


Figure 5-1: Newport Bay Bacterial Quality Monitoring Stations

3.a.ii.b. Fate of Bacterial Inputs

By (30 days after State TMDL approval),* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach and the agricultural operators in the Newport Bay watershed shall submit a plan for the development and submittal of a water quality model to be completed by 13 months after Regional Board approval of the plan. The model shall be capable of analysis of fecal coliform inputs to Newport Bay, the fate of those inputs, and the effect of those inputs on compliance with bacterial quality objectives in the Bay.

3.a.ii.c. Beneficial Use Assessment

By (30 days after State TMDL approval),* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify water contact recreation activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the water contact recreation beneficial use assessment.

By (13 months after State TMDL approval),* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach shall submit a plan to complete, by 13 months after Regional Board approval of the plan, a beneficial use assessment to identify and quantify shellfish harvesting activities in Newport Bay. By 13 months after Regional Board approval of the beneficial use assessment plan, these parties shall submit a report of the results of the shellfish harvesting beneficial use assessment.

The beneficial use assessment reports shall contain recommendations for prioritizing areas within Newport Bay for purposes of evaluation and implementation of cost-effective and reasonable control actions as part of the TMDL process. The Regional Board will consider these recommendations and make its determinations regarding high priority water contact recreation and shellfish harvesting areas at a duly noticed public hearing. These determinations will be considered in establishing interim WLAs and LAs and compliance dates (Task 10, Table 5-9g).

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

3.a.ii.d. Source Identification and Characterization

By (60 days after State TMDL approval),* the County of Orange and the City of Newport Beach shall submit a proposed plan for a program, to be completed within 7 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to The Dunes Resort. In lieu of this coordinated plan, each of these parties may submit an individual plan to identify and characterize fecal coliform inputs to The Dunes Resort. Any such individual plan shall also be submitted by (60 days after State TMDL approval)* and completed within 7 months after Regional Board approval of the plan(s).

By (60 days after State TMDL approval),* the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 13 months after Regional Board approval of the plan to identify and characterize fecal coliform inputs to Newport Bay from urban runoff, including stormwater. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from urban runoff from areas within its jurisdiction. Any such individual or group plan shall also be submitted by (60 days after State TMDL approval)* and completed within 13 months after Regional Board approval of the plan(s).

By (3 months after State TMDL approval),* the agricultural operators in the Newport Bay watershed shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from agricultural runoff, including stormwater. In lieu of this coordinated plan, one or more of the agricultural operators may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from agricultural runoff from areas within their jurisdiction. Any such individual or group plan shall also be submitted by (3 months after State TMDL approval)* and completed within 16 months after Regional Board approval of the plan(s).

By (3 months after State TMDL approval),* the County of Orange and the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest, and Newport Beach shall submit a proposed plan for a program, to be completed within 16 months after Regional Board approval of the plan, to identify and characterize fecal coliform inputs to Newport Bay from natural sources. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to identify and characterize fecal coliform inputs to the Bay from natural sources from areas within its jurisdiction. Any such individual or group plan shall also be submitted by (3

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

months after State TMDL approval)* and completed within 16 months after Regional Board approval of the plan(s).

3.a.ii.e. Evaluation of Vessel Waste Control Program

By (90 days after State TMDL approval), * the County of Orange and the City of Newport Beach shall submit a plan to complete, by one year after Regional Board approval of the plan, an assessment of the effectiveness of the vessel waste control program implemented by those agencies in Newport Bay. The plan shall be implemented upon approval by the Regional Board. A report of the study results shall be submitted, together with recommendations for changes to the vessel waste program necessary to ensure compliance with this TMDL.

The Regional Board will consider appropriate changes to the vessel waste control program. These changes shall be implemented in accordance with a schedule to be established by the Regional Board.

3.a.ii.f. TMDL, WLA and LA Evaluation and Source Monitoring Program

By (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 5-9g)* the County of Orange, the Cities of Tustin, Irvine, Costa Mesa Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall propose a plan for evaluation and source monitoring to determine compliance with the WLAs and LAs specified in Table 5-9f. In lieu of this coordinated, regional plan, one or more of these parties may submit an individual or group plan to conduct TMDL, WLA, LA and Source Evaluation monitoring from areas solely within their jurisdiction. Any such individual or group plan shall also be submitted by (3 months after completion of Tasks 2, 4a, and 6 as shown in Table 5-9g).* Reports of the data collected pursuant to approved individual/group plan(s) shall be submitted monthly and an annual report summarizing the data and evaluating compliance with WLAs and LAs shall be submitted by September 1 of each year. The annual report shall also include an evaluation of the effectiveness of control measures implemented to control sources of fecal coliform, and recommendations for any changes to the control measures needed to ensure compliance with the TMDL, WLAs, and LAs.

* Note: Upon State approval (i.e., approval by the Regional Board, the State Water Resources Control Board, and the Office of Administrative Law), this parenthetical "formula" will be replaced by the date certain, based on the date of approval.

The evaluation and source monitoring plan(s) shall be implemented upon Regional Board approval.

3.a.ii.g. Updated TMDL Report

The County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Orange, Lake Forest and Newport Beach, and the agricultural operators in the Newport Bay watershed shall submit Updated TMDL Reports as specified in Table 5-9g. These updated TMDL reports shall, at a minimum, integrate and evaluate the results of the studies required in Table 5-9g (Task 1 – 7). The reports shall include recommendations for revisions to the TMDL, if appropriate and for interim WLAs, LAs and compliance schedules

3.a.ii.h. Adjust TMDL; Adopt Interim WLA, LAs and Compliance Dates

Based on the results of the studies required by Table 5-9g and recommendations made in the Updated TMDL Reports, changes to the TMDL for fecal coliform may be warranted. Such changes would be considered through the Basin Plan Amendment process. Upon completion and consideration of the studies and any appropriate Basin Plan amendments, interim WLAs and LAs that lead to ultimate compliance with the TMDL specified in Table 5-9f, or with an approved amended TMDL, will be established with interim compliance dates. Schedules will also be established for submittal of implementation plans for control measures to achieve compliance with these WLAs, LAs, and compliance dates. These implementation plans will be considered by the Regional Board at a duly noticed public hearing.

The Regional Board is committed to the review of this TMDL every three years or more frequently if warranted by these or other studies. The County of Orange, the Cities of Tustin, Irvine, Costa Mesa, Santa Ana, Lake Forest, and Newport Beach, The Irvine Company and the Irvine Ranch Water District have undertaken to prepare a health risk assessment for Newport Bay for water contact recreation and shellfish harvesting beneficial uses. This study will evaluate whether exceedances of fecal coliform objectives correlates with actual impairment of beneficial uses and may recommend revisions to the Basin Plan objectives and/or beneficial use designations. Because this study is in progress, it is not required by this TMDL implementation plan, but will be considered in conjunction with the studies required by the implementation plan.

Attachment 32




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460


NOV 22 2002

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs

FROM: Robert H. Wayland, III, Director
Office of Wetlands, Oceans and Watersheds 

James A. Hanlon, Director
Office of Wastewater Management 

TO: Water Division Directors
Regions 1 - 10

This memorandum clarifies existing EPA regulatory requirements for, and provides guidance on, establishing wasteload allocations (WLAs) for storm water discharges in total maximum daily loads (TMDLs) approved or established by EPA. It also addresses the establishment of water quality-based effluent limits (WQBELs) and conditions in National Pollutant Discharge Elimination System (NPDES) permits based on the WLAs for storm water discharges in TMDLs. The key points presented in this memorandum are as follows:

NPDES-regulated storm water discharges must be addressed by the wasteload allocation component of a TMDL. See 40 C.F.R. § 130.2(h).

NPDES-regulated storm water discharges may not be addressed by the load allocation (LA) component of a TMDL. See 40 C.F.R. § 130.2 (g) & (h).

Storm water discharges from sources that are not currently subject to NPDES regulation may be addressed by the load allocation component of a TMDL. See 40 C.F.R. § 130.2(g).

It may be reasonable to express allocations for NPDES-regulated storm water discharges from multiple point sources as a single categorical wasteload allocation when data and information are insufficient to assign each source or outfall individual WLAs. See 40 C.F.R. § 130.2(i). In cases where wasteload allocations

are developed for categories of discharges, these categories should be defined as narrowly as available information allows.

The WLAs and LAs are to be expressed in numeric form in the TMDL. See 40 C.F.R. § 130.2(h) & (i). EPA expects TMDL authorities to make separate allocations to NPDES-regulated storm water discharges (in the form of WLAs) and unregulated storm water (in the form of LAs). EPA recognizes that these allocations might be fairly rudimentary because of data limitations and variability in the system.

NPDES permit conditions must be consistent with the assumptions and requirements of available WLAs. See 40 C.F.R. § 122.44(d)(1)(vii)(B).

WQBELs for NPDES-regulated storm water discharges that implement WLAs in TMDLs may be expressed in the form of best management practices (BMPs) under specified circumstances. See 33 U.S.C. §1342(p)(3)(B)(iii); 40 C.F.R. §122.44(k)(2)&(3). If BMPs alone adequately implement the WLAs, then additional controls are not necessary.

EPA expects that most WQBELs for NPDES-regulated municipal and small construction storm water discharges will be in the form of BMPs, and that numeric limits will be used only in rare instances.

When a non-numeric water quality-based effluent limit is imposed, the permit's administrative record, including the fact sheet when one is required, needs to support that the BMPs are expected to be sufficient to implement the WLA in the TMDL. See 40 C.F.R. §§ 124.8, 124.9 & 124.18.

The NPDES permit must also specify the monitoring necessary to determine compliance with effluent limitations. See 40 C.F.R. § 122.44(i). Where effluent limits are specified as BMPs, the permit should also specify the monitoring necessary to assess if the expected load reductions attributed to BMP implementation are achieved (e.g., BMP performance data).

The permit should also provide a mechanism to make adjustments to the required BMPs as necessary to ensure their adequate performance.

This memorandum is organized as follows:

- (I). Regulatory basis for including NPDES-regulated storm water discharges in WLAs in TMDLs;
- (II). Options for addressing storm water in TMDLs; and

(III). Determining effluent limits in NPDES permits for storm water discharges consistent with the WLA

(I). Regulatory Basis for Including NPDES-regulated Storm Water Discharges in WLAs in TMDLs

As part of the 1987 amendments to the CWA, Congress added Section 402(p) to the Act to cover discharges composed entirely of storm water. Section 402(p)(2) of the Act requires permit coverage for discharges associated with industrial activity and discharges from large and medium municipal separate storm sewer systems (MS4), *i.e.*, systems serving a population over 250,000 or systems serving a population between 100,000 and 250,000, respectively. These discharges are referred to as Phase I MS4 discharges.

In addition, the Administrator was directed to study and issue regulations that designate additional storm water discharges, other than those regulated under Phase I, to be regulated in order to protect water quality. EPA issued regulations on December 8, 1999 (64 FR 68722), expanding the NPDES storm water program to include discharges from smaller MS4s (including all systems within "urbanized areas" and other systems serving populations less than 100,000) and storm water discharges from construction sites that disturb one to five acres, with opportunities for area-specific exclusions. This program expansion is referred to as Phase II.

Section 402(p) also specifies the levels of control to be incorporated into NPDES storm water permits depending on the source (industrial versus municipal storm water). Permits for storm water discharges associated with industrial activity are to require compliance with all applicable provisions of Sections 301 and 402 of the CWA, *i.e.*, all technology-based and water quality-based requirements. *See* 33 U.S.C. §1342(p)(3)(A). Permits for discharges from MS4s, however, "shall require controls to reduce the discharge of pollutants to the maximum extent practicable ... and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants." *See* 33 U.S.C. §1342(p)(3)(B)(iii).

Storm water discharges that are regulated under Phase I or Phase II of the NPDES storm water program are point sources that must be included in the WLA portion of a TMDL. *See* 40 C.F.R. § 130.2(h). Storm water discharges that are not currently subject to Phase I or Phase II of the NPDES storm water program are not required to obtain NPDES permits. 33 U.S.C. §1342(p)(1) & (p)(6). Therefore, for regulatory purposes, they are analogous to nonpoint sources and may be included in the LA portion of a TMDL. *See* 40 C.F.R. § 130.2(g).

(II). Options for Addressing Storm Water in TMDLs

Decisions about allocations of pollutant loads within a TMDL are driven by the quantity and quality of existing and readily available water quality data. The amount of storm water data available for a TMDL varies from location to location. Nevertheless, EPA expects TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges

(in the form of WLAs) and unregulated storm water (in the form of LAs). It may be reasonable to quantify the allocations through estimates or extrapolations, based either on knowledge of land use patterns and associated literature values for pollutant loadings or on actual, albeit limited, loading information. EPA recognizes that these allocations might be fairly rudimentary because of data limitations.

EPA also recognizes that the available data and information usually are not detailed enough to determine waste load allocations for NPDES-regulated storm water discharges on an outfall-specific basis. In this situation, EPA recommends expressing the wasteload allocation in the TMDL as either a single number for all NPDES-regulated storm water discharges, or when information allows, as different WLAs for different identifiable categories, *e.g.*, municipal storm water as distinguished from storm water discharges from construction sites or municipal storm water discharges from City A as distinguished from City B. These categories should be defined as narrowly as available information allows (*e.g.*, for municipalities, separate WLAs for each municipality and for industrial sources, separate WLAs for different types of industrial storm water sources or dischargers).

(III). Determining Effluent Limits in NPDES Permits for Storm Water Discharges Consistent with the WLA

Where a TMDL has been approved, NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the wasteload allocations in the TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Effluent limitations to control the discharge of pollutants generally are expressed in numerical form. However, in light of 33 U.S.C. §1342(p)(3)(B)(iii), EPA recommends that for NPDES-regulated municipal and small construction storm water discharges effluent limits should be expressed as best management practices (BMPs) or other similar requirements, rather than as numeric effluent limits. See *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits*, 61 FR 43761 (Aug. 26, 1996). The Interim Permitting Approach Policy recognizes the need for an iterative approach to control pollutants in storm water discharges. Specifically, the policy anticipates that a suite of BMPs will be used in the initial rounds of permits and that these BMPs will be tailored in subsequent rounds.

EPA's policy recognizes that because storm water discharges are due to storm events that are highly variable in frequency and duration and are not easily characterized, only in rare cases will it be feasible or appropriate to establish numeric limits for municipal and small construction storm water discharges. The variability in the system and minimal data generally available make it difficult to determine with precision or certainty actual and projected loadings for individual dischargers or groups of dischargers. Therefore, EPA believes that in these situations, permit limits typically can be expressed as BMPs, and that numeric limits will be used only in rare instances.

Under certain circumstances, BMPs are an appropriate form of effluent limits to control pollutants in storm water. See 40 CFR § 122.44(k)(2) & (3). If it is determined that a BMP approach (including an iterative BMP approach) is appropriate to meet the storm water component of the TMDL, EPA recommends that the TMDL reflect this.

EPA expects that the NPDES permitting authority will review the information provided by the TMDL, see 40 C.F.R. § 122.44(d)(1)(vii)(B), and determine whether the effluent limit is appropriately expressed using a BMP approach (including an iterative BMP approach) or a numeric limit. Where BMPs are used, EPA recommends that the permit provide a mechanism to require use of expanded or better-tailored BMPs when monitoring demonstrates they are necessary to implement the WLA and protect water quality.

Where the NPDES permitting authority allows for a choice of BMPs, a discussion of the BMP selection and assumptions needs to be included in the permit's administrative record, including the fact sheet when one is required. 40 C.F.R. §§ 124.8, 124.9 & 124.18. For general permits, this may be included in the storm water pollution prevention plan required by the permit. See 40 C.F.R. § 122.28. Permitting authorities may require the permittee to provide supporting information, such as how the permittee designed its management plan to address the WLA(s). See 40 C.F.R. § 122.28. The NPDES permit must require the monitoring necessary to assure compliance with permit limitations, although the permitting authority has the discretion under EPA's regulations to decide the frequency of such monitoring. See 40 CFR § 122.44(i). EPA recommends that such permits require collecting data on the actual performance of the BMPs. These additional data may provide a basis for revised management measures. The monitoring data are likely to have other uses as well. For example, the monitoring data might indicate if it is necessary to adjust the BMPs. Any monitoring for storm water required as part of the permit should be consistent with the state's overall assessment and monitoring strategy.

The policy outlined in this memorandum affirms the appropriateness of an iterative, adaptive management BMP approach, whereby permits include effluent limits (e.g., a combination of structural and non-structural BMPs) that address storm water discharges, implement mechanisms to evaluate the performance of such controls, and make adjustments (i.e., more stringent controls or specific BMPs) as necessary to protect water quality. This approach is further supported by the recent report from the National Research Council (NRC), *Assessing the TMDL Approach to Water Quality Management* (National Academy Press, 2001). The NRC report recommends an approach that includes "adaptive implementation," i.e., "a cyclical process in which TMDL plans are periodically assessed for their achievement of water quality standards" . . . and adjustments made as necessary. *NRC Report* at ES-5.

This memorandum discusses existing requirements of the Clean Water Act (CWA) and codified in the TMDL and NPDES implementing regulations. Those CWA provisions and regulations contain legally binding requirements. This document describes these requirements; it does not substitute for those provisions or regulations. The recommendations in this memorandum are not binding; indeed, there may be other approaches that would be appropriate

in particular situations. When EPA makes a TMDL or permitting decision, it will make each decision on a case-by-case basis and will be guided by the applicable requirements of the CWA and implementing regulations, taking into account comments and information presented at that time by interested persons regarding the appropriateness of applying these recommendations to the particular situation. EPA may change this guidance in the future.

If you have any questions please feel free to contact us or Linda Boornazian, Director of the Water Permits Division or Charles Sutfin, Director of the Assessment and Watershed Protection Division.

cc:

Water Quality Branch Chiefs
Regions 1 - 10

Permit Branch Chiefs
Regions 1 - 10

Attachment 33



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 12 2010

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs"

FROM: James A. Hanlon, Director
Office of Wastewater Management
[Signature]
Denise Keehner, Director
Office of Wetlands, Oceans and Watersheds
[Signature]

TO: Water Management Division Directors
Regions 1 - 10

This memorandum updates aspects of EPA's November 22, 2002 memorandum from Robert H. Wayland, III, Director of the Office of Wetlands, Oceans and Watersheds, and James A. Hanlon, Director of the Office of Wastewater Management, on the subject of "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" (hereafter "2002 memorandum").

Background

Section III of the 2002 memorandum "affirm[ed] the appropriateness of an iterative, adaptive management best management practices (BMP) approach" for improving stormwater management over time as permitting agencies, the regulated community, and other involved stakeholders gain more experience and knowledge. Since 2002, States and EPA have obtained considerable experience in developing TMDLs and WLAs that address stormwater sources. The technical capacity to monitor stormwater and its impacts on water quality has increased. In many areas, monitoring of the impacts of stormwater on water quality has become more sophisticated and widespread. Better information on the effectiveness of stormwater controls to reduce pollutant loadings and address water quality impairments is now available. In many parts of the country, permitting agencies have issued several rounds of permits for Phase I municipal separate storm sewer systems (MS4s), Phase II MS4s, and stormwater discharges associated with industrial activity, including stormwater from construction activities. Notwithstanding these developments, stormwater discharges remain a significant cause of water quality

impairment in many places, highlighting a continuing need for more useful WLAs and better NPDES permit provisions to restore impaired waters to their beneficial uses.

With this additional experience in mind, EPA is updating and revising the following four elements of the 2002 memorandum to better reflect current practices and trends in permits and WLAs for stormwater discharges:

- Providing numeric water quality-based effluent limitations in NPDES permits for stormwater discharges;
- Disaggregating stormwater sources in a WLA;
- Using surrogates for pollutant parameters when establishing targets for TMDL loading capacity; and
- Designating additional stormwater sources to regulate and treating load allocations as wasteload allocations for newly regulated stormwater sources.

EPA is currently reviewing other elements of the 2002 memorandum and will consider making appropriate revisions in the future.

Providing Numeric Water Quality-Based Effluent Limitations in NPDES Permits for Stormwater Discharges

In today's memorandum, EPA is revising the 2002 memorandum with respect to water quality-based effluent limitations (WQBELs) in stormwater permits. Since 2002, many NPDES authorities have documented the contributions of stormwater discharges to water quality impairment and have identified the need to include clearer permit requirements in order to address these impairments. Numeric WQBELs in stormwater permits can clarify permit requirements and improve accountability and enforceability. For the purpose of this memorandum, numeric WQBELs use numeric parameters such as pollutant concentrations, pollutant loads, or numeric parameters acting as surrogates for pollutants, such as stormwater flow volume or percentage or amount of impervious cover.

The CWA provides that stormwater permits for MS4 discharges shall contain controls to reduce the discharge of pollutants to the "maximum extent practicable" and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. CWA section 402(p)(3)(B)(iii). Under this provision, the NPDES permitting authority has the discretion to include requirements for reducing pollutants in stormwater discharges as necessary for compliance with water quality standards. *Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1166 (9th Cir. 1999).

Where the NPDES authority determines that MS4 discharges have the reasonable potential to cause or contribute to a water quality standard excursion, EPA recommends that, where feasible, the NPDES permitting authority exercise its discretion to include numeric effluent limitations as necessary to meet water quality standards. The 2002

memorandum stated "EPA expects that most WQBELs for NPDES-regulated municipal and small construction stormwater discharges will be in the form of BMPs, and that numeric limitations will be used only in rare instances." Those expectations have changed as the stormwater permit program has matured. EPA now recognizes that where the NPDES authority determines that MS4 discharges and/or small construction stormwater discharges have the reasonable potential to cause or contribute to water quality standards excursions, permits for MS4s and/or small construction stormwater discharges should contain numeric effluent limitations where feasible to do so. EPA recommends that NPDES permitting authorities use numeric effluent limitations where feasible as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

The Clean Water Act (CWA) requires that permits for stormwater discharges associated with industrial activity comply with section 301 of the Act, including the requirement under section 301(b)(1)(C) to contain WQBELs for any discharge that the permitting authority determines has the reasonable potential to cause or contribute to a water quality standard excursion. CWA section 402(p)(3)(A), 40 CFR 122.44(d)(1)(iii). When the permitting authority determines, using the procedures specified at 40 CFR 122.44(d)(1)(ii) that the discharge causes or has the reasonable potential to cause or contribute to an in-stream excursion of the water quality standards, the permit must contain effluent limits for that pollutant. EPA recommends that NPDES permitting authorities use numeric effluent limitations where feasible as these types of effluent limitations create objective and accountable means for controlling stormwater discharges.

Where WQBELs in permits for stormwater discharges from MS4s, small construction sites or industrial sites are expressed in the form of BMPs, the permit should contain objective and measurable elements (e.g., schedule for BMP installation or level of BMP performance). The objective and measurable elements should be included in permits as enforceable provisions. Permitting authorities should consider including numeric benchmarks for BMPs and associated monitoring protocols or specific protocols for estimating BMP effectiveness in stormwater permits. These benchmarks could be used as thresholds that would require the permittee to take additional action specified in the permit, such as evaluating the effectiveness of the BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.

If the State or EPA has established a TMDL for an impaired water that includes WLAs for stormwater discharges, permits for either industrial stormwater discharges or MS4 discharges must contain effluent limits and conditions consistent with the requirements and assumptions of the WLAs in the TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Where the WLA of a TMDL is expressed in terms of a surrogate pollutant parameter, then the corresponding permit can generally use the surrogate pollutant parameter in the WQBEL as well. Where the TMDL includes WLAs for stormwater sources that provide numeric pollutant load or numeric surrogate pollutant parameter objectives, the WLA should, where feasible, be translated into numeric WQBELs in the applicable stormwater permits.

The permitting authority's decision as to how to express the WQBEL(s), either as numeric effluent limitations or BMPs, including BMPs accompanied by numeric benchmarks, should be based on an analysis of the specific facts and circumstances surrounding the permit, and/or the underlying WLA, including the nature of the stormwater discharge, available data, modeling results or other relevant information. As discussed in the 2002 memorandum, the permit's administrative record needs to provide an adequate demonstration that, where a BMP-based approach to permit limitations is selected, the BMPs required by the permit will be sufficient to implement applicable WLAs. Improved knowledge of BMP effectiveness gained since 2002 should be reflected in the demonstration and supporting rationale that implementation of the BMPs will attain water quality standards and WLAs.

EPA's regulations at 40 CFR § 122.47 govern the use of compliance schedules in NPDES permits. Central among the requirements is that the effluent limitation(s) must be met "as soon as possible." 40 CFR 122.47(a)(1). EPA expects the permitting authority to include in the permit record a sound rationale for determining that any compliance schedule meets this requirement. Where a TMDL has been established and there is an accompanying implementation plan that provides a schedule for an MS4 to implement the TMDL, the permitting authority should consider the schedule as it decides whether and how to establish enforceable interim requirements and interim dates in the permit.

Lastly, NPDES permits must specify monitoring requirements necessary to determine compliance with effluent limitations. See CWA section 402(a)(2); 40 C.F.R. 122.44(i). Where WQBELs are expressed as BMPs, the permit must require adequate monitoring to determine if the BMPs are performing as necessary. When developing monitoring requirements, the NPDES authority should consider the variable nature of stormwater as well the availability of reliable and applicable field data describing the treatment efficiencies of the BMPs required and supporting modeling analysis.

Disaggregating Stormwater Sources in a WLA

As stated in the 2002 memorandum, EPA expects TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges (in the form of WLAs) and unregulated storm water (in the form of LAs). EPA also recognized that the available data and information usually are not detailed enough to determine waste load allocations for NPDES-regulated storm water discharges on an outfall-specific basis.

EPA still recognizes that decisions about allocations of pollutant loads within a TMDL are driven by quantity and quality of existing and readily available water quality data. However, today, TMDL writers may have better data or better access to data and, over time, may have gained more experience since 2002 in developing TMDLs and WLAs in a less aggregated manner. Moreover, since 2002, EPA has noted the difficulty of establishing clear, effective, and enforceable NPDES permit limitations for sources covered by WLAs that are expressed as single categorical or aggregated wasteload allocations.

Accordingly, for all these reasons, EPA recommends that WLAs for NPDES-regulated stormwater discharges should be disaggregated into specific categories (e.g., separate WLAs for MS4 and industrial stormwater discharges) to the extent feasible based on available data and/or modeling projections. In addition, these disaggregated WLAs should be defined as narrowly as available information allows (e.g., for MS4s, separate WLAs for each one; and, for industrial sources, separate WLAs for different sources or types of industrial sources or discharges.)

Where appropriate, EPA encourages permit writers to assign specific shares of the wasteload allocation to specific permittees during the permitting process.

Using Surrogate for Pollutant Parameters When Establishing Targets for TMDL Loading Capacity

Many waterbodies affected by stormwater discharges are listed as impaired under Section 303(d) due to biological degradation or habitat alteration, rather than for specific pollutants (e.g., metals, pathogens, sediment). Impairment can be due to pollutants where hydrologic changes such as quantity of flow and variation in flow regimes are important factors in their transport. Since the stormwater-source impairment is usually the result of the cumulative impact of multiple pollutants and physical effects, it may be difficult to identify a specific pollutant (or pollutants) causing the impairment. Using a surrogate parameter in developing wasteload allocations for waters impaired by stormwater sources may, at times, be the appropriate approach for restoring the waterbodies.

In the 2009 report *Urban Stormwater Management in the United States*, the National Research Council suggests: "A more straightforward way to regulate stormwater contributions to waterbody impairment would be to use flow or a surrogate, like impervious cover, as a measure of stormwater loading . . . Efforts to reduce stormwater flow will automatically achieve reductions in pollutant loading. Moreover, flow is itself responsible for additional erosion and sedimentation that adversely impacts surface water quality."

Therefore, when developing TMDLs for receiving waters where stormwater sources are the primary source of impairment, it may be suitable to establish a numeric target for a surrogate pollutant parameter, such as stormwater flow volume or impervious cover, that would be expected to provide attainment of water quality standards. This is consistent with the TMDL regulations that specify that TMDLs can be expressed in terms of mass per time, toxicity or other appropriate measure (40 C.F.R. §130.2(i)).

Where a surrogate parameter is used, the TMDL document must demonstrate the linkage between the surrogate parameter and the documented impairment (e.g., biological degradation). In addition, the TMDL should provide supporting documentation to indicate that the surrogate pollutant parameter appropriately represents stormwater pollutant loadings. Monitoring is an essential undertaking to ensure that compliance with the effluent limitations occurs.

Recent examples of TMDLs using flow or impervious cover as surrogates for pollutants in setting TMDL loading targets include: the Eagleville Brook (CT) TMDL and the Barberry Creek (ME) TMDL which used impervious cover as a surrogate; and, the Potash Brook (VT) TMDL which used stormwater flow volume as a surrogate.

Designating Additional Stormwater Sources to Regulate and Treating Load Allocations as Wasteload Allocations for Newly Regulated Stormwater Sources

The 2002 memorandum states that “stormwater discharges from sources that are not currently subject to NPDES regulation may be addressed by the load allocation component of a TMDL.” Section 402(p)(2) of the Clean Water Act (CWA) requires industrial stormwater sources, certain municipal separate storm sewer systems, and other designated sources to be subject to NPDES permits. Section 402(p)(6) provides EPA with authority to identify additional stormwater discharges as needing a permit.

In addition to the stormwater discharges specifically identified as needing an NPDES permit, the CWA and the NPDES regulations allow for EPA and NPDES authorized States to designate, additional stormwater discharges for regulation. See 40 CFR 122.26 (a)(9)(i)(C), (a)(9)(i)(D), (b)(4)(iii), (b)(7)(iii), (b)(15)(ii) and 122.32(a)(2). Since 2002, EPA has become concerned that NPDES authorities have generally not adequately considered exercising these authorities to designate for NPDES permitting stormwater discharges that are currently not required to obtain permit coverage but that are significant enough to be identified in the load allocation component of a TMDL. Accordingly, EPA encourages permitting authorities to consider designation of stormwater sources in situations where coverage under NPDES permits would afford a more effective mechanism to reduce pollutants in stormwater discharges than available nonpoint source control methods.

In situations where a stormwater source addressed in a TMDL's load allocation is not currently regulated by an NPDES permit but may be required to obtain an NPDES permit in the future, the TMDL writer should consider including language in the TMDL explaining that the allocation for the stormwater source is expressed in the TMDL as a “load allocation” contingent on the source remaining unpermitted, but that the “load allocation” would later be deemed a “wasteload allocation” if the stormwater discharge from the source were required to obtain NPDES permit coverage. Such language, while not legally required, would help ensure that the allocation is properly characterized by the permit writer should the source's regulatory status change. This will help ensure that effluent limitations in a NPDES permit applicable to the newly permitted source are consistent with the requirements and assumptions of the TMDL's allocation to that source.

Such recharacterization of a load allocation as a wasteload allocation would not automatically require resubmission of the TMDL to EPA for approval. However, if the TMDL's allocation for the newly permitted source had been part of a single aggregated or gross load allocation for all unregulated stormwater sources, it may be appropriate for the NPDES permit authority to determine a wasteload allocation and corresponding

effluent limitation specific to the newly permitted stormwater source. Any additional analysis used to refine the allocation should be included in the administrative record for the permit. In such cases, the record should describe the basis for

- (1) recharacterizing the load allocation as a wasteload allocation for this source and
- (2) determining that the permit's effluent limitations are consistent with the assumptions and requirements of this recharacterized wasteload allocation. For purposes of this discussion, it is assumed that the permit writer's additional analysis or recharacterization of the load allocation as a wasteload allocation does not change the TMDL's overall loading cap. Any change in a TMDL loading cap would have to be resubmitted for EPA approval.

If you have any questions please feel free to contact us or Linda Boornazian, Director of the Water Permits Division or Benita Best-Wong, Director of the Assessment and Watershed Protection Division.

cc: Association of State and Interstate Water Pollution Control Administrators
Water Quality Branch Chiefs, Regions 1 - 10
Permits Branch Chiefs, Regions 1 - 10

Attachment 34

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Report of Waste Discharge

Signed Certified Statement

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- Attachment I Proposed 2007 DAMP

EXECUTIVE SUMMARY

The Orange County Stormwater Program (the Program) is a cooperative municipal regulatory compliance initiative focused on the management of urban and stormwater runoff for the protection and enhancement of Orange County's creeks, rivers, streams, and coastal waters. The main objective of the Program is to fulfill the commitment of Orange County's cities, the County of Orange and the Orange County Flood Control District to develop and implement a program that satisfies the requirements of area-wide municipal National Pollutant Discharge Elimination System (NPDES) permits (subsequently referred to as the Third Term Permits).

The purpose of this document is to comply with the requirement of the Third Term Permits, Regional Water Quality Control Board Orders R8-2002-0010 (Santa Ana Regional Board) and R9-2002-0001 (San Diego Regional Board) to submit a Report of Waste Discharge 180 days prior to permit expiration. This Report discusses the Permittees' Third Term Permit compliance activities and includes a description of accomplishments, an assessment of program effectiveness, and a proposed management program (a draft 2007 Drainage Area Management Plan) for the period 2007-2012.

The Program's accomplishments represent the culmination of the development and three years of implementation of a program that was substantially revised to meet the requirements of the Third Term NPDES Permits. Notable programmatic accomplishments include:

- Completion of the 2003 DAMP including 34 jurisdictional Local Implementation Plans (LIPs) (**DAMP Appendix A**), a formal training program (**DAMP Appendix B**) a program effectiveness assessment strategy (**DAMP Appendix C**), and 6 Watershed Action Plans (WAPs) (**DAMP Appendix D**) (**Section 2.0**);
- Establishment of 2 separate, but nonetheless similar and highly interdependent, planning processes targeting the control of pollutants in urban runoff and completion of studies to evaluate the effectiveness and applicability of various source control and treatment control Best Management Practices (**DAMP Appendix D**) (**Section 3.0**);
- Validation, through independent administrative and trial court review, of the robustness of the Permittees' local legal authority for DAMP implementation (**Section 4.0**);
- Development and implementation of (1) a Model Municipal Activities program at 2,302 municipal facilities, (2) Model Integrated Pest Management Guidelines which have reduced municipal fertilizer and pesticide use, and (3) an Established BMP performance reporting program that has indicated the increased effectiveness of street sweeping and trash and debris collection practices (**Section 5.0**);
- Development and implementation of a public education program that has created over 160,000,000 media impressions and produced measurable and positive changes in public awareness and behavior (**Section 6.0**);
- Development and implementation of a Model Water Quality Management Plan (WQMP) based program for new development, the approval of over 1,400 project WQMPs, and the creation and ongoing development of a web-based expert system to support coastal urban wetland management (**Section 7.0**);
- Development and implementation of a Model Construction Program under which 6,570 enforcement actions were taken within a pattern of increasing levels of compliance in the most recent annual reporting period (**Section 8.0**);
- Development and implementation of a Model Industrial/Commercial Program under which over 31,000 facilities have been subject to local regulatory review and 7,266

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enforcement actions were taken within a pattern of increasing levels of compliance in the most recent annual reporting period (**Section 9.0**);

- The investigation of 8,866 complaints regarding illegal discharges or illicit connections, increased use of a telephone hotline for the reporting by the public of water quality concerns, and implementation of enhanced cooperative local agency procedures and practices for sewage spill response (**Section 10.0**);
- Development and approval of the Third Term Permit water quality monitoring program and development and implementation of a sophisticated environmental data management system (Labtrack) (**Section C-11.0**), and
- Implementation of the DAMP/Watershed Action Plans (WAPs) in the San Diego Regional Board area (**Section C-12.0**) and significant progress toward completion of WAPs for the Newport Bay and Santa Ana River watersheds.

In assessing the effectiveness of the Program, the Permittees evaluated a series of performance metrics termed Headline Measure, that are intended to confirm program implementation and validate achievement of outcomes. The basis of this approach draws on the hierarchical taxonomy of programmatic outcomes, being advocated by the California Stormwater Quality Association (CASQA), which creates a framework for defining the relationships between compliance actions and, ultimately, positive changes in water quality. In addition, the assessment has been informed by (1) the findings of the Countywide water quality monitoring programs, (2) a series of consultative workshops conducted with jurisdictional program coordinators, (3) reviews of audit reports and other Regional Water Quality Control Board (RWQCB) correspondence and meetings with RWQCB staff, and (4) the receiving water limitations provisions of the Permits.

In conducting the assessment, three major themes emerged during the review. These themes are:

Theme 1: Demonstrating the iterative management approach: Adapting the management program to more effectively address urban sources of pollutants that are causing or contributing to exceedances of water quality standards;

Theme 2: Enhancing Implementation: Improving program implementation through incorporation for auditable environmental management system concepts, and

Theme 3: Establishing watershed-based water quality planning: On a Countywide basis, creating 2 separate, but nonetheless highly inter-related, water quality planning processes, to address urban sources of pollutants.

The Program effectiveness assessment resulted in 2 types of programmatic recommendations, specifically (1) ROWD Commitments (New programmatic commitments to be developed and implemented over the period of the Fourth Term Permits) and (2) DAMP Modifications (Improvements to existing program commitments incorporated into the proposed 2007 DAMP). The ROWD Commitments comprise:

Iterative Management: Developing and implementing new BMP programs including Integrated Pest Management (IPM) approaches for pesticide toxicity, BMPs for the architectural use of copper and zinc in new development, and new BMPs and for municipal trash and debris

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control.

Enhancing implementation: Defining the expertise and competencies of staff with program implementation responsibilities and to develop staff skills and expertise through a strategic approach to training. Also, commitments to develop program guidance documentation and standards for source and treatment control BMPs.

Enhancing watershed-based water quality planning: Completing 11 Watershed Action Plans to establish countywide and watershed-based water quality planning processes across Orange County.

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1.0 INTRODUCTION

The cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, La Palma, Laguna Hills, Laguna Woods, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (collectively the Santa Ana Region Permittees) and the cities of Aliso Viejo, Dana Point, Laguna Beach, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, Mission Viejo, Rancho Santa Margarita, San Clemente, and San Juan Capistrano (collectively the San Diego Region Permittees) operate municipal storm drain systems and discharge stormwater and urban runoff pursuant to National Pollutant Discharge Elimination System (NPDES) Permits.

These Permits require that the Permittees work together to:

- Effectively prohibit non-stormwater discharges to the stormdrain system, and
- Implement controls to reduce the discharge of pollutants in stormwater to the Maximum Extent Practicable (MEP).

The Permits were first adopted in 1990 and subsequently renewed in 1996 (Second Term) and 2002 (Third Term) (See **Table 1.1**). This **Report of Waste Discharge** has been prepared in anticipation of the expiration of the Third Term Permits in early 2007 and comprises:

- An evaluation of NPDES permit compliance over the period of the Third Term Permits;
- A proposed management program, the **2007 Drainage Area Management Plan (2007 DAMP)** (see **Appendix A**) for the Fourth Term Permits;
- A comparison of land use in Orange County in 2002 and 2005 (see **Appendix B**), and,
- A compendium of maps showing changes to the storm drain system infrastructure over the period of the Third Term Permits (see **Appendix C**).

1.1 Background

1.1.1 Drainage Area Management Plan

The **Drainage Area Management Plan (DAMP)** is the principal policy and program guidance document for the *Orange County Stormwater Program*, a cooperative municipal regulatory compliance initiative focused on the management and protection of Orange County's streams, rivers, creeks and coastal waters. The main objective of the DAMP is to fulfill the commitment of the Permittees to develop and implement a program that satisfies NPDES permit requirements.

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The DAMP describes the agreements, structures and programs that:

- Provide the framework for the program management activities and plan development (DAMP Section 2.0 and Section 3.0);
- Provide the legal authority for prohibiting unpermitted discharges into the storm drain system and for requiring BMPs in new development and significant redevelopment (DAMP Section 4.0);
- Improve existing municipal pollution prevention and removal best management practices (BMPs) to further reduce the amount of pollutants entering the storm drain system. (DAMP Section 5.0);
- Educate the public about the issues of urban stormwater and non-stormwater pollution and obtain their support in implementing pollution prevention BMPs (DAMP Section 6.0);
- Ensure that all new development and significant redevelopment incorporates appropriate Site Design, Source Control and Treatment Control BMPs to address specific water quality issues. (DAMP Section 7.0);
- Ensure that construction sites implement control practices that address control of construction related pollutants discharges including an effective combination of erosion and sediment controls and on-site hazardous materials and waste management (DAMP Section 8.0);
- Ensure that existing development addresses discharges from industrial facilities, selected commercial businesses, residential development and common interest areas/homeowner associations (note: the San Diego permit explicitly outlines a residential component, but the Santa Ana permit is more general about residential requirements). (DAMP Section 9.0);
- Detect and eliminate illegal discharges/illicit connections to the municipal storm drain system (DAMP Section 10.0);
- Identify urban impacts on receiving waters; produce environmental quality information to direct management activities, including prioritization of pollutants to support the development of specific controls to address these problems; and determine pollutant load reductions and changes in the quality of receiving waters (DAMP Section 11.0); and
- Assess watershed constituents of concern and manage urban runoff on a watershed basis (DAMP Section 12.0).

1.1.2 Runoff from Urban Areas

The Program is concerned with the imprint of urban development on the landscape.

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Urbanization creates rooftops, driveways, roads and parking lots (Schueler and Holland, 2000,¹ use the term *Imperviousness* as the unifying theme for understanding the adverse hydrologic impacts of urbanization), which (1) increase the timing and volume of rainfall runoff (compared to pre-development conditions) and (2) provide a source of pollutants that are flushed or leached by rainfall runoff into aquatic systems. The environmental consequences of these impacts are loss or impairment of aquatic beneficial uses due to:

- Water quality degradation resulting from increased loadings of sediment nutrients, metals hydrocarbons, pesticides and bacteria;
- Stream channel instability and habitat loss resulting from increased severity and frequency of floods;
- Increased water temperatures resulting from solar energy absorption by urban surfaces and elimination of riparian shading; and
- Loss of groundwater recharge.

1.1.3 Regulatory History

The Orange County Stormwater Program was initiated in 1990 as a cooperative local government response to a 1987 amendment to the federal Clean Water Act (CWA). This amendment extended the provisions of CWA Section 402 (National Pollutant Discharge Eliminations System permitting) to municipal storm drain system operators thereby making local governments (and some industrial activities) responsible for the quality of their stormwater discharges. Permit application requirements were promulgated by US Environmental Protection Agency (EPA) in 1990 (40 CFR 122) and form the basis of the current program.

Orange County's first NPDES Permits were issued in 1990 with renewals in 1996 and 2002. There are separate NPDES Permits administered by the Santa Ana and San Diego Regional Water Quality Control Boards (RWQCBs). The Permits prescribe that surface water quality protection be addressed in local governments' oversight of construction and development, its regulation of industry and commerce, and in its construction, operation and maintenance of the public urban infrastructure.

Program managers maintain the compliance of their jurisdiction with the applicable permit (or permits) through implementation of a BMP-based environmental management system (i.e. the DAMP) that is subject to both annual self auditing and reporting and external regulatory compliance audits which, in the Santa Ana Regional Board are, is an enforceable part of the Third Term Permit.

¹ Thomas R. Schuler and Heather K. Holland. *The Practice of Watershed Protection: Techniques for protecting our nation's streams, lakes, rivers and estuaries* (Maryland: Center for Watershed Protection, 2000).

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1.2 Approach to Preparing Report of Waste Discharge

1.2.1 Themes

The immediate objective of the ROWD is to fulfill the commitment of the Permittees to undertake a program assessment and propose revisions to the management program in response to the information learned. While compliance with the Third Term Permits is maintained by implementation of prescribed management actions, program assessment must be undertaken with regard to the Permits' receiving water limitations provisions which require adaptation of the Orange County Stormwater Program where urban sources are causing or contributing to exceedances of applicable water quality standards. The first of the major themes that has framed preparation of the ROWD is a focusing of management efforts on identified water quality constituents of concern identified by the environmental monitoring programs.

The Third Term Permits transformed the Orange County Stormwater Program developed under the First and Second Permit Terms. The major escalation in compliance obligations prescribed new requirements for local governments' oversight of construction and development, regulation of industry and commerce, and its construction, operation and maintenance of the public urban infrastructure. These new compliance obligations required a major realignment of the program implemented over two years with the consequence that program performance metrics are generally available for three years. Program effectiveness assessments over the limited period of full implementation have indicated positive programmatic impacts, as detailed in subsequent sections of this report. However, annual assessments have also indicated significant variability in performance reporting between jurisdictions. In addition, regulatory agency reviews have identified differences in regulatory agency and Permittee expectations in key areas of the Program, particularly with respect to regulation and oversight. The second major theme of the ROWD is therefore a focus on enhancing existing program implementation rather than the proposed development of major new program initiatives.

The third major theme is a focus on the watershed approach and specific water quality constituents of concern. The Third Term Permits required the Permittees under the jurisdiction of the San Diego RWQCB to develop Watershed Urban Runoff Management Plans (WURMPs) to address priority water quality constituents of concern, and similar plans are being developed for watersheds in the Santa Ana Region. The WURMPs, termed DAMP Watershed Action Plans, while continuing to evolve, provide a basis for both cooperative targeted actions that complement the countywide approach and optimizing management actions on a regional, sub-regional or jurisdictional basis.

Major Themes of the ROWD

- **Demonstrating the Iterative Management Approach:** Implementing policy shifts based upon the findings of the environmental monitoring programs.

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- **Enhancing Implementation:** Focusing on program implementation through incorporation of environmental management system concepts.
- **Emphasizing the Watershed Approach:** Establishing and enhancing watershed-based water quality planning on a countywide basis.

1.2.2 Assessment

The DAMP incorporates three separate but nonetheless related water quality planning processes which are identified as "countywide," "jurisdictional," and "watershed-based" water quality management. Each process is iterative and incorporates annual phases of assessment focused on determining whether programmatic outcomes are being achieved (See **DAMP Appendix C - Program Effectiveness Assessment**). These annual assessments have previously been reported (see Unified and jurisdictional Annual Progress Reports).

DAMP Appendix C also recognizes the additional phase of assessment required in the ROWD every five years. While the longer term perspective of the ROWD allows a focus on environmental outcomes, both the annual and ROWD assessments necessarily consider the same performance metrics, both programmatic and environmental. In addition to considering these metrics, preparation of effectiveness assessments in the ROWD were additionally informed by:

- A longer term (rather than annual) review of the findings of the countywide water quality monitoring programs;
- Review of audit reports and other regulatory correspondence regarding the Program and meetings with RWQCB staff;
- A series of facilitated consultation meetings with jurisdictional program coordinators, including in-depth interviews on key program areas; and
- Input from the public at workshops.

The assessment has produced two types of programmatic recommendations:

1. ROWD Commitments, and
2. DAMP Modifications.

ROWD commitments represent shifts in programs that will be implemented upon completion of a development process with the Permittees, and are identified at the end of each program section of the ROWD. DAMP Modifications are characterized as programmatic modifications for improving program implementation and have been incorporated into the proposed 2007 DAMP.

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Program Effectiveness

An activity, program element, or overall program is effective if it is producing a desired outcome. **Figure 1.1** shows that outcomes can be construed in terms of six levels and illustrates the progression of each successive level toward the ultimate goal of environmental improvement. In general, Levels 1 to 3 can be considered *Implementation Outcomes*, Levels 5 and 6 *Water Quality Outcomes* and Level 4 a combination of the two. Each level has value in informing the management process. However, it bears emphasis that not all are necessary or possible in every instance (CASQA, 2005).²

Assessment measures may be variously categorized. In this ROWD, two categories are recognized, related to (1) the shorter term confirmation of BMP implementation (Implementation or Process Measures, also termed Programmatic Indicators), corresponding to Levels 1-3 in **Figure 1.1**, and (2) the longer term verification of environmental improvement (Validation or Results Measures, typically actual indicators of environmental change). In essence, the categorization of measures reflects two basic assessment questions:

- Are program elements being implemented correctly?
- Are environmental improvements being realized?

Headline Indicators are intended to be a sub-set of measures that reflect in simple terms how a stormwater program is progressing towards its goals and are easily understandable. The Orange County Stormwater Program Headline Indicators that have been reported over the Third Term Permits are presented in **Table 1.2**.

Effectiveness assessment requires the establishment of a set of baseline conditions. Thereafter effectiveness can be determined by comparisons of successive years of indicator information against the baseline data. Where the period of evaluation is characterized by the implementation of new program requirements, determinations of program effectiveness will be limited to confirmation of program implementation. Indeed, it must be recognized that evidence of positive environmental outcomes can be elusive because:

- Water quality changes in response to program implementation are likely to be very slow; and
- Establishing a link between receiving water condition and program activities is difficult at the watershed scale when programs are being implemented incrementally.

While program effectiveness assessment is a key step in the iterative process of program

² California Stormwater Quality Association (CASQA). 2005. "An Introduction to Stormwater Program Effectiveness Assessment." Available at: <http://www.scvurppp-w2k.com/pdfs/0405/CASQA%20White%20Paper%20An%20Introduction%20to%20Stormwater%20Program%20Effectiveness%20Assessment4.pdf>.

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implementation, it should be realized that effectiveness assessment tools are still evolving. Assessing program effectiveness is recognized as a challenge for program managers across California, and the Orange County Stormwater Program is supporting the effort of the California Stormwater Quality Association (CASQA) to develop guidance in this area at a statewide level.

Environmental Assessment

A summary of the major findings of the water quality monitoring program is presented in **Section 11**. This summary has identified a number of water quality constituents of concern, specifically, metals (copper and zinc) and pesticides, based upon frequent exceedances of water quality standards and the occurrence of toxicity, respectively. In addition, Total Maximum Daily Loads (TMDL) and 13225 and 13267 Directives (see **Section 12**) for pathogen indicator bacteria and regulatory interventions regarding trash and debris require that these constituents also be considered water quality constituents of concern that will be the focus of targeted management efforts over the period of the Fourth Term Permits.

Regulatory Assessment

Over the period of the Third Term Permits, most of the municipal entities have been the subject of compliance audits which have served to highlight the successes (national recognition by USEPA) and shortcomings (three instances of administrative civil liabilities) of the Program. Since the primary objective of the DAMP is to fulfill the commitment of the Permittees to develop and implement a program that satisfies NPDES permit requirements, regulatory agency findings regarding permit compliance and the performance of the Orange County Stormwater Program must be considered in effectiveness assessments. Indeed, many of the commitments made in the subsequent sections follow from regulatory findings. In addition, current Total Maximum Daily Load (TMDL) development in the South County area and a regulatory intervention regarding trash and debris in the north County area, elevate fecal indicator bacteria and trash and debris to the status of Orange County Stormwater Program water quality constituents of concern.

Permittee Assessment

The Permittees have undertaken a comprehensive review of the current programs, identifying areas that are ineffective and require modification, and ones requiring additional emphasis. This assessment, coupled with the environmental and regulatory assessments, are the foundational underpinnings for this ROWD.

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Table 1.1: Permit History

Permit Term	Santa Ana Regional Board			San Diego Regional Board		
	Order No.	NPDES No.	Date Adopted	Order No.	NPDES No.	Date Adopted
First (1990-1996)	90-71	CA 8000180	July 1990	90-38	CA 0108740	July 1990
Second (1996-2002)	96-31	CAS618030	March 1996	96-03	CAS0108740	August 1996
Third (2002-2007)	R8-2002-0010	CAS618030	January 2002	R9-2002-0001	CAS0108740	February 2002

Table 1.2: Headline Measures

Program Element	Headline Measure	Process Measure	Result Measure	
			Indirect	Direct
2.0 Program Management	Participation in General Permittee Committee	X		
5.0 Municipal Activities	Solid Waste Collected		X	
	Drainage Facility Maintenance - Solid Waste Collected		X	
	Catchbasin Stenciling	X		
	Street Sweeping - Solid Waste Collected		X	
	Household Hazardous Waste Collected		X	
	Used Oil Collected		X	
	# of Facilities Inspected	X		
	Prioritization (High, Medium, Low) of Facilities		X	
	Reduction in Total Pesticide Application		X	
	Reduction in Total Fertilizer (Nitrogen) Application		X	
	Reduction in Total Fertilizer (Phosphorus) Application		X	
6.0 Public Education	# of Impressions	X		
	Changes in Public Awareness and Behavior		X	

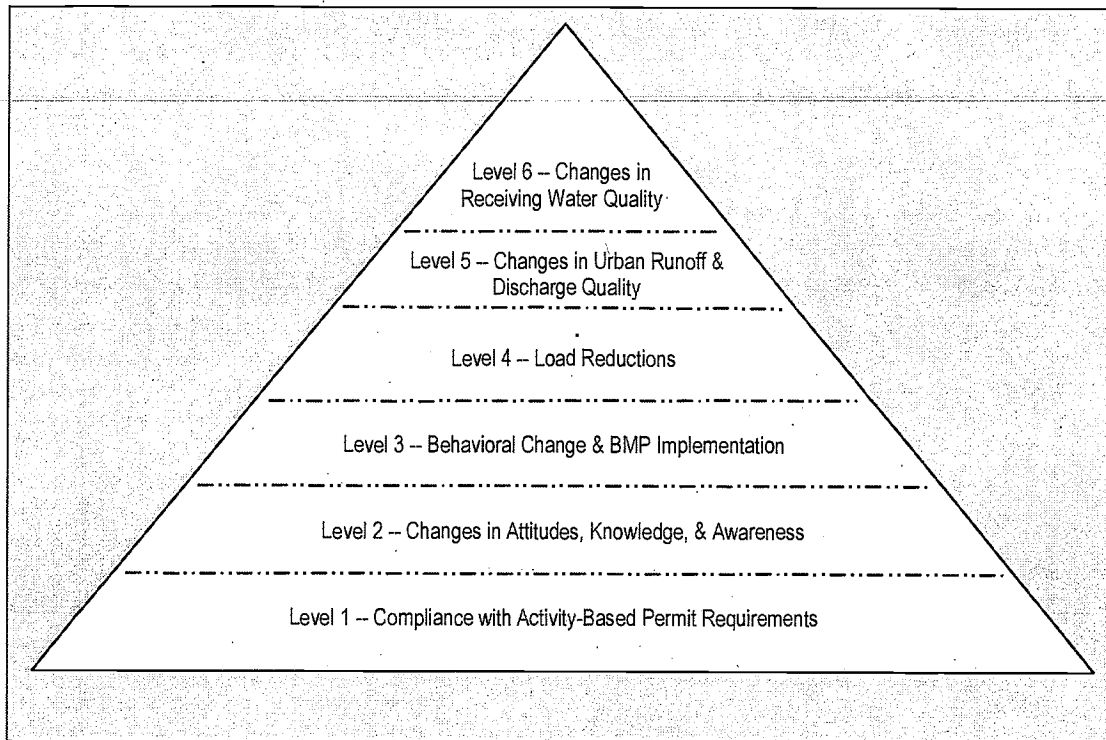
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Table 1.2: Headline Measures

Program Element	Headline Measure	Process Measure	Result Measure	
			Indirect	Direct
7.0 New Development	# of WQMPs processed	X		
	Area (Acreage) to which BMPs have been Applied		X	
	# of BMPs Implemented		X	
8.0 Construction	# of Sites Inspected	X		
	Extent of Compliance		X	
	# and Level of Enforcement Actions	X		
9.0 Existing Development	# of BMPs Implemented		X	
	Prioritization of Facilities		X	
	# and Level of Enforcement Actions	X		
10.0 ID/IC	# of Complaints		X	
	# and Level of Enforcement Actions	X		
11.0 Water Quality	Monitoring			X

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Figure 1.1: General Classification of Outcome Types



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2.0 PROGRAM MANAGEMENT

2.1 Introduction

The key elements of program management comprise the Principal Permittee and Permittee relationship, the Implementation Agreement, the structure and hierarchy of committees (termed Management Framework), and policy and program documentation (i.e. the DAMP). At the inception of the Orange County Stormwater Program, the Permittees in both Regional Board areas agreed that the County of Orange would be the Principal Permittee and the cities and the Orange County Flood Control District would be Co-Permittees on the permit (all parties are now collectively referred to as Permittees). Principal Permittee and Permittee responsibilities are specified in the Permits and reiterated in the NPDES Stormwater Permit Implementation Agreement (referred to as Implementation Agreement) which also provides a funding mechanism for the shared costs (administration, program development, public education, and environmental monitoring) of the Orange County Stormwater Program. To further support the development and implementation of a coordinated countywide program, a management framework was created during the First Permit Term. With the Third Term Permits this framework has evolved into a four tier structure (Permittees, City Managers' Water Quality Committee, Technical Advisory Committee (TAC) and Program Committees/Task Forces). Concurrently, the DAMP was substantially revised to address the significant escalation in compliance requirements prescribed in the Third Term Permits.

2.2 Accomplishments

2.2.1 Implementation Agreement

The Implementation Agreement, originally entered into in December of 1990, was amended in October of 1993 to include two additional Permittees (Laguna Hills and Lake Forest) and formally establish the TAC.

- Implementation Agreement: On June 25, 2002, the Implementation Agreement was amended again and fully restated to include three additional Permittees (Aliso Viejo, Laguna Woods and Rancho Santa Margarita).

2.2.2 Management Framework

The Permittees established (in early 2002) and maintained a tiered management framework consisting of committees, task forces, sub-committees and ad hoc work groups to direct the development and implementation of the Orange County Stormwater Program (Figure 2.1). A greater level of participation in all aspects of the program has been evident by high Permittee participation in the management framework. This framework is composed of:

- City Manager's Water Quality Committee
-

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The City Manager's Water Quality Committee meets as needed to provide budget and overall program review and governance direction.

- City Engineer's Technical Advisory Committee (TAC)

The TAC serves in a program advisory role and provides policy direction on program budget and program development and implementation. It is comprised of one Public Works Director/City Engineer, or selected representative, from each of the County Supervisor Districts and a representative from the County of Orange. It meets 4-6 times annually.

- General Permittee Committee

The General Permittee Committee is the principal forum for disseminating information for program coordinators. The Committee meets monthly (except November).

In 2004-05, thirty four (34) out of thirty five (35) Permittees reported 80% or higher participation in the General Permittee Committee.

- Task Forces/ Sub-Committees

The *Task Forces/ Sub-Committees* provide for the continued development of the program in a specified area of program responsibility and oversight. The Task Forces/ Sub-Committees which were active in 2004-05, are:

- Trash and Debris Task Force
 - Purpose: To foster and sustain partnership approaches to dealing with trash and debris in stormwater and urban runoff (quarterly meeting schedule). Recent products include a strategic assessment of Orange County's trash and debris control efforts.
 - Legal/Regulatory Authority Task Force
 - Purpose: To review the legal authorities that the Permittees have in complying with the permit requirements and recommend changes as needed and to track stormwater related litigation that may affect the Orange County Stormwater Program (quarterly meeting schedule).
 - Water Use Efficiency Task force
 - Purpose: To study and support a comprehensive effort to curb urban runoff through efficient water usage in Orange County (quarterly meeting schedule).
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- Data and Information Management Sub-Committee
 - Purpose: To oversee the development and implementation of information technology solutions to program data management and reporting requirements (monthly meeting schedule). Recent products include an internet-based system for preparation of the annual reports/Program Effectiveness Assessments (PEAs).
 - LIP/PEA Sub-Committee
 - Purpose: To provide oversight and technical direction to the management of core DAMP/Local Implementation Plan (LIP) programs (bi-monthly meeting schedule).
 - Public Education Sub-Committee
 - Purpose: To provide regional consistency and oversight for the stormwater public education program efforts (monthly meeting schedule). The sub-committee directs development and dissemination of all education and outreach materials.
 - Inspection Sub-Committee
 - Purpose: To provide a forum for the coordination, investigation, enforcement and training aspects of the existing development inspection program and Illegal Discharges/Illicit Connections (ID/IC) programs (bi-monthly meeting schedule). Recent products include the Investigative Guidance Manual and self-audit checklist.
 - Water Quality Sub-Committee
 - Purpose: To provide oversight and technical input for the revision of the water quality monitoring programs, ongoing water quality data evaluation, and special water quality investigations and BMP effectiveness studies (quarterly meeting schedule).
 - Ad-Hoc Group - Wastewater Disposal
 - Purpose: To develop a list of BMPs for the disposal of washwater/wastewater generated by mobile businesses. The Group was convened specifically to address wastewater disposal issues and worked cooperatively with the sewerage agencies to produce best management practice guidance (BMP Fact Sheet IC24). This ad-hoc group has now sunsetted.
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- Watershed Committees
 - Seven Watershed Committees (Newport Bay, Laguna Coastal streams, Aliso Creek, Dana Point Coastal Streams, San Juan Creek, San Clemente Coastal Streams, and San Mateo Creek) were established and have met regularly since their inception.
 - Other Watershed Committees/Work Groups

The Permittees have also participated in the Newport Bay Executive and Management Committees (the latter held jointly for a period with the Army Corp of Engineers (ACOE) Study Management Team), the Huntington Harbour Water Quality Task Force, the Dana Point Harbor Water Quality Task Force, the Coastal Coalition, and the Aliso Creek Tier I and Tier II stakeholder meetings. These watershed groups focus their activities and discussions on broader watershed issues of concern, such as habitat restoration and flood control in addition to water quality issues resulting from Total Maximum Daily Loads (TMDLs) and special directives.

- Other Representation/Participation

The Principal Permittee actively represents the Permittees on various advisory stormwater fora, including, California Stormwater Quality Association (CASQA), Southern California Coastal Water Research Project (SCCWRP) (the County, representing the Orange County Stormwater Program, joined SCCWRP in 2005-06), Plastic Debris - Rivers to Sea Project, Nitrogen and Selenium Management Program, and Waste Discharge Requirements (WDR) for Fats, Oils and Grease (FOG) Program.

2.2.3 Program Documentation

The completion of the 2003 DAMP marked the culmination of a major program documentation overhaul and revision that was initiated by the preparation of the Report of Waste Discharge submitted on September 1, 2000. In addition to the revised policy commitments and model programs, the DAMP was expanded through the addition of appendices to include 34 individual jurisdictional LIPs (the Permittees formally identified which departments have responsibility for implementation of each program element), an extensive compendium of training materials, regional and jurisdictional program effectiveness assessment and reporting, and six watershed management plans.

2.2.4 Watershed Mapping

To support the development of the DAMP/Watershed Chapters, GIS-based mapping was undertaken for the S. County area initially to define watershed boundaries. It will be completed for the entire County area by the end of 2006 and will, for the first time, establish definitive watershed and sub-watershed boundaries for Orange County.

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Orange County Watersheds (See Figure 12.1)

Orange County - Santa Ana Region	South Orange - San Diego Region
San Gabriel / Coyote Creek Watershed (within Orange County)	Laguna Coastal Streams Watershed
Anaheim Bay/Huntington Harbour Watershed	Aliso Creek Watershed
Santa Ana River Watershed (within Orange County)	Dana Point Coastal Streams Watershed
Newport Bay Watershed	San Juan Creek Watershed
Newport Coastal Streams Watershed	San Clemente Coastal Streams Watershed
	San Mateo Creek Watershed (within Orange County)

2.2.5 Fiscal Analyses

Annual fiscal analyses have been conducted since the inception of the Program. Each analysis identifies *shared costs* and *individual costs*. Shared costs are those that fund activities performed by the Principal Permittee. These activities include administration, program development, public education, and environmental monitoring. The projected-shared cost expenditures for the 2005-06 fiscal year, as approved by the Permittees, were \$5,941,160.

Individual Costs are those incurred by each Permittee arising from its jurisdictional program implementation as documented in the LIPs and comprise capital and operation and maintenance costs. Capital Costs refers to expenditures for land, large equipment, and structures and Operations and Maintenance Costs refer to normal costs of operation including the cost of keeping equipment and facilities in working order. The total individual Permittee costs for the 2005-06 fiscal year were projected to be \$91,868,883.

The fiscal analysis also requires the identification of funding sources. The funding sources used by the Permittees include: General Fund, Utility Tax, Separate Utility, Gas Tax, and Special District Fund, Others (Sanitation Fee, Fleet Maintenance, Community Services District, Water Fund, Sewer & Storm Drain Fee, Grants, and Used Oil Recycling Grants). Figure 2.2 shows that general funds continue to support over half the cost of program implementation across Orange County.

2.3 Assessment

2.3.1 Implementation Agreement

Since the inception of the Program the Implementation Agreement has been amended to provide for the incorporation of new cities and to formally recognize the role of the TAC. The structure of the Agreement has accommodated the expansion of the program and the significant escalation of shared costs with the adoption of the Third Term Permits. More recently, the Agreement has served as a model for cost sharing collaboration related to the Newport Bay TMDL compliance effort (including the Nitrogen Selenium Management Program), Regional Harbor Monitoring Program, and

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Aliso Creek 13255 Directive. Consequently, it is considered to be an effective basis for cooperation of the Program.

2.3.2 Management Framework

USEPA defines a management framework *"as a lasting process for partners working together. It's a support structure making it easier to coordinate efforts--a structure made of agreed upon standard operating procedures, timelines, and forums for communicating with each other"*. On the basis of this definition, the current framework continues to effectively serve the Permittees. The Management Framework has enabled 36 local government entities to develop, implement and sustain coordinated regional and watershed-based approaches to water quality protection and management. The Framework provides a basis for all parties, including staff, management, executive management and elected officials to be informed and involved in the planning processes.

In addition to the established framework, an alternate management framework was conceived during the Third Permit Term by County senior management and the City Managers Association Water Quality Committee in the context of developing a countywide strategic approach to water quality protection based upon three watershed management areas. Conceptually endorsed by the County of Orange Board of Supervisors, this alternate structure will continue to be developed over the course of the Fourth Term Permits.

Headline Indicator - Participation in General Permittee Committee: In 2004-05, thirty four (34) out of thirty five (35) Permittees reported 80% or higher participation in the General Permittee Committee compared to thirty two (32) Permittees reporting 80% or higher participation in 2003-04.

The management framework is reviewed annually to ensure it meets program needs. All the committees/task forces have been effective in bringing forward initiatives to meet the requirements of the Third Term Permits and to address program needs under a consensus building production process.

While these outcomes point to the value and robustness of the current Framework, there has been significant turnover of staff in jurisdictional program manager positions. This has led to a regulatory agency perception that program managers lack the training and expertise necessary to effectively implement the "stormwater mandate."

ROWD Commitment:

- Prepare a training schedule and define expertise and competencies for jurisdictional program manager positions.

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2.3.3 Program Documentation

International Organization for Standardization (ISO) 14000 provides criteria for evaluating the efficacy of management system documentation. The DAMP expresses the commitment of the Permittees to NPDES permit compliance and to addressing the adverse impacts of urban runoff on Orange County's creeks, rivers, streams and coastal waters. It establishes objectives, guides the participating organizations toward the development and implementation of BMPs, and commits the Permittees to an iterative process of improvement. It requires the designation of a program manager and assigns responsibilities (through the LIPs) for program implementation. Based upon these considerations, the DAMP meets formal environmental management system expectations for policy documentation. Moreover, the DAMP clearly identifies management procedures and provides for the internal and external communication of both policy and performance. The DAMP is also widely available to interested parties through its posting to www.ocwatersheds.com.

While the comprehensive nature of the current documentation supports the implementation of the Program, it can be perceived as overwhelming in its complexity to both jurisdictional program coordinators who lack a long period of program association and outside constituencies seeking insights into the program. Moreover, the active consideration being given by regulators (e.g. the SWRCB's Blue Ribbon Panel) to possible future inclusion in NPDES permits of quantitative measures, including effluent limitations, underscores regulatory agency and environmental advocate perception of there being undue complexity and challenge with respect to establishing discharger accountability. It is possibly a perception which is being reinforced by overly comprehensive and complex program documentation. The Permittees started to address this issue of accessibility with the publication of the "popular format" *Orange County Stormwater Program Progress in 2002-2003* report and this document's subsequent acclaim points to the need for the more regular use of "popular" format reports. However, to address both the need for the DAMP to be more "accessible" and the Permittees' interest in validating a regulatory framework for stormwater predicated upon an auditable management system, the DAMP must more succinctly demonstrate to all constituencies that policies, objectives, and targets are properly identified and are being met, that regulatory compliance is being achieved, and that the planning processes provide for iterative improvement.

DAMP Modification:

- Revise the DAMP for greater consistency with established Environmental Management System (EMS) principles and improved accessibility to different constituencies and levels of readership.

2.3.4 Fiscal Analyses

SECTION 2.0, PROGRAM MANAGEMENT

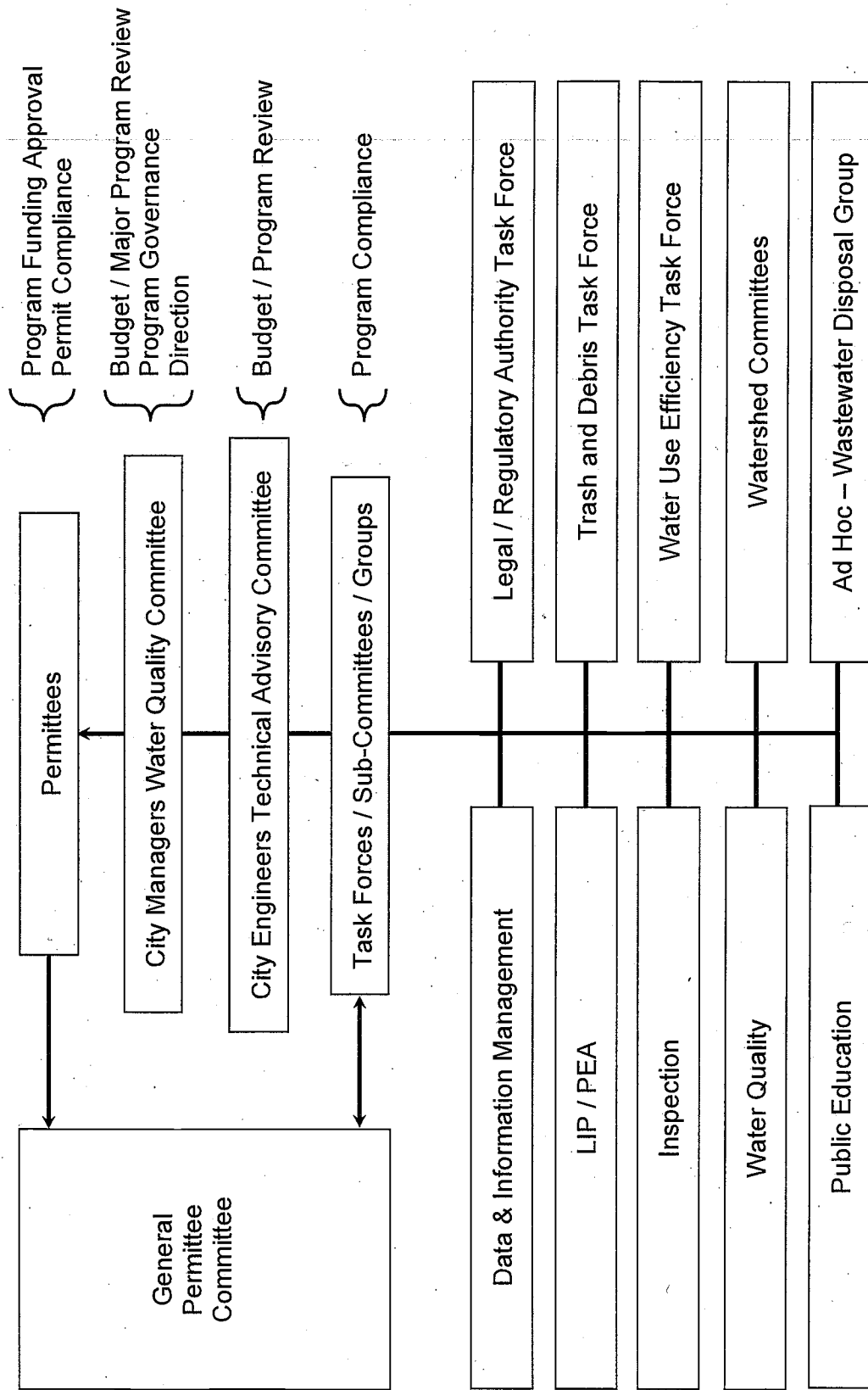
The significant year-to-year variability in reported program costs (Figure 2.3), which cannot be attributed to changes in program management, point to the clear need for an assessment of the fiscal reporting process.

ROWD Commitment:

- Prepare a fiscal reporting strategy based upon a review of the fiscal analysis reporting section of the PEA, to better define the expenditure and budget line items included in the fiscal report.

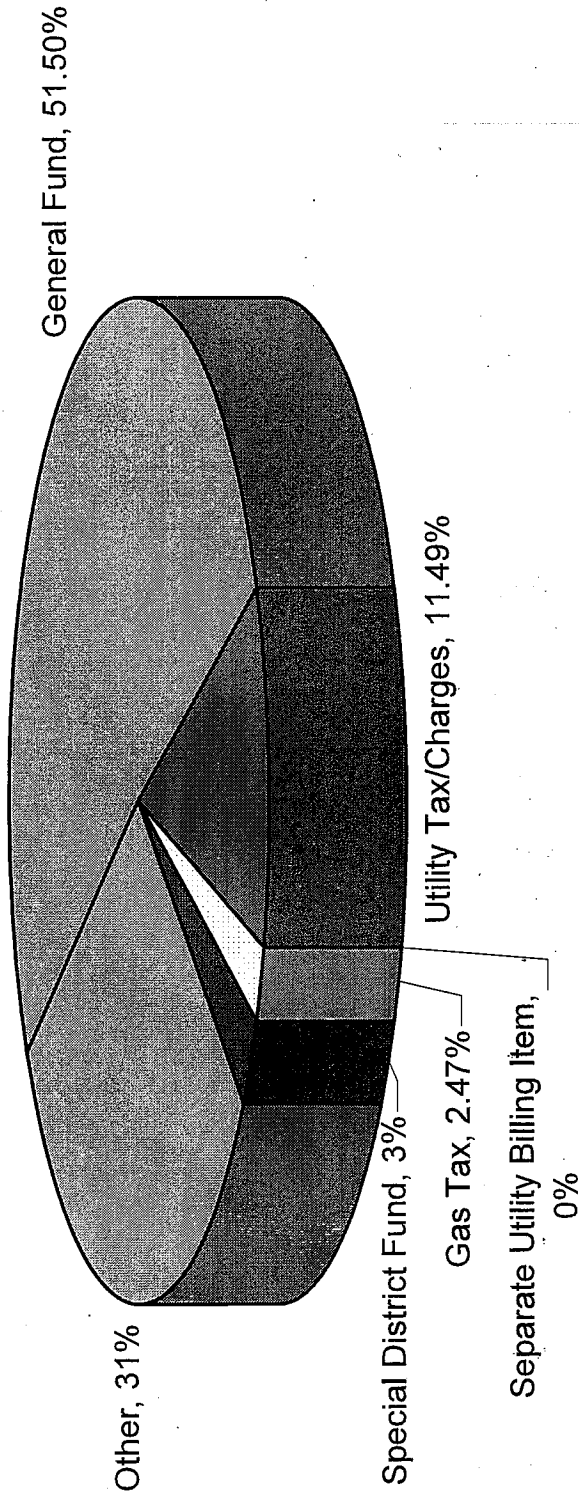
SECTION 2.0, PROGRAM MANAGEMENT

Figure 2.1: Orange County Municipal NPDES Management Framework



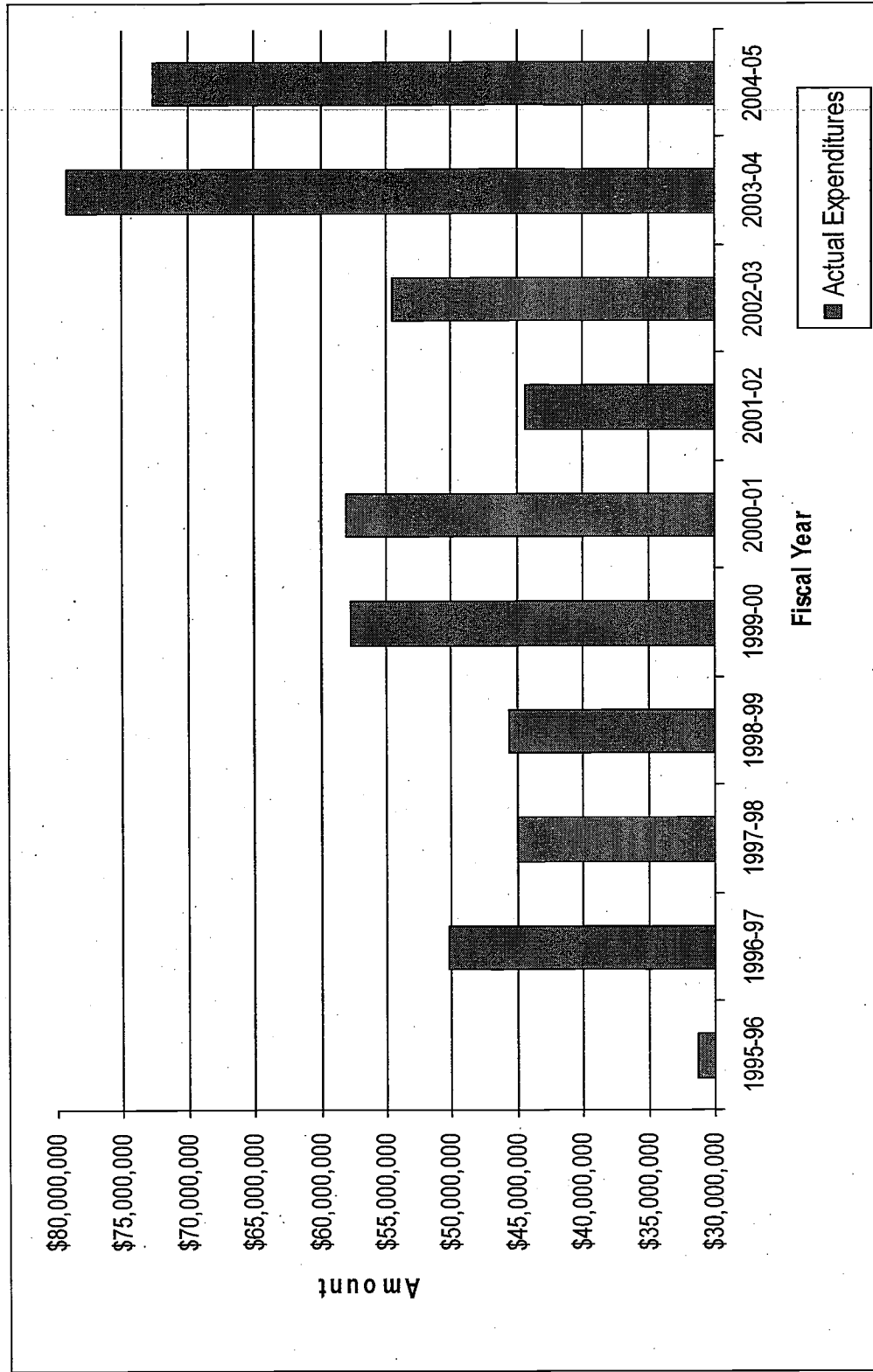
SECTION 2.0, PROGRAM MANAGEMENT

Figure 2.2: 2004-05 Funding Sources



SECTION 2.0, PROGRAM MANAGEMENT

Figure 2.3: Historical Review of Total Individual Permittee Costs



SECTION 3.0, PLAN DEVELOPMENT

3.0 PLAN DEVELOPMENT

3.1 Introduction

The DAMP sets forth a countywide approach for urban stormwater management by:

- Establishing a baseline set of BMPs that are applicable to all areas and that are proven and cost-effective;
- Monitoring water quality to assess progress and identify urban impacts on receiving water;
- Prioritizing waterbodies for corrective action, with those listed as impaired having a higher priority; and
- Focusing on enhanced BMPs for constituents of concern at a watershed or jurisdictional level, as appropriate.

The purpose of DAMP Section 3.0 is to describe an iterative planning process, informed by programmatic BMP assessments and environmental monitoring, which support the progressive evolution attainment of water quality standards, as required by the NPDES Permits.

3.2 Accomplishments

3.2.1 Enhancements to DAMP: Iterative Planning Processes

A defining feature of the iterative planning process is the continual analysis, measurement and improvement through the quality loop which is illustrated in a simplified form in **Figure 3.1**:

Assessing: Assessing environmental conditions and programmatic performance, establishing the goals and targets to be achieved, and determining the route to be taken and the measurements to track success;

Planning: Designing activities to achieve the goal, identifying the needed skills and expertise, and designating responsibility for achieving desired outcomes;

Implementing: Striving to bring the process into effect in an efficient and effective manner, and

Monitoring: Evaluating the effectiveness of the *Implementing* stage.

With the adoption of the Third Term Permits, the DAMP which previously had presented policy and programmatic guidance, was revised to incorporate greater individual accountability through jurisdictional Local Implementation Plans (LIPs) (see DAMP Appendix B). The LIPs provide a flexible jurisdiction-specific plan within the broader policy and model program framework of the DAMP.

With additional permit mandates to institute watershed-based planning, water quality

SECTION 3.0, PLAN DEVELOPMENT

planning in the context of the DAMP is now evident as two separate, but nonetheless similar and highly interdependent, processes targeting the control of pollutants in urban runoff. These processes (**Table 3.1; Figure 3.1**) are now recognized in the DAMP as:

- DAMP/LIP - Directed by jurisdictional assessments completed individually by each Permittee and a countywide assessment through a Unified Annual Progress Report.; and
- DAMP/Watershed Action Plan (WAD) (See **DAMP Appendix D**) - Directed by watershed scale assessments in Watershed Annual Reports.

3.2.2 Enhancements to DAMP: Programs and BMPs

Assessment is the part of the planning cycle that involves either initial investigation of the environmental conditions that are being addressed by the management program or, in subsequent iterations of the planning cycle, re-assessment to determine program effectiveness (i.e. if the actions being implemented are contributing to programmatic goals). It encompasses programmatic (including technology evaluations) and environmental enhancements and is itself an evolving area of stormwater management.

Programmatic Enhancements

To assist the Permittees with reporting the status of LIP implementation and the performance of the individual jurisdictional stormwater quality management programs, a Program Effectiveness Assessment (PEA) reporting framework (**DAMP Appendix C**) was developed in 2002-03. The PEA:

- Facilitates the collection and compilation of specific stormwater program implementation data and progress validation indicators;
 - A PEA template was created in 2003 and has been the basis of the 2002-03, 2003-04, and 2004-05 Annual Reports. In 2005, the template was converted into an internet-based reporting system.
- Provides for program effectiveness assessment by the individual Permittees and the Principal Permittee on a jurisdictional, watershed and/or countywide basis;
 - The PEA identifies specific programmatic and environmental performance metrics including specified validation indicators titled, "Headline Indicators." (See Section 1.2.2)
- Ensures that an evaluation and improvement process is applied on a jurisdictional, watershed and/or countywide level to determine where modifications within the DAMP, LIP or WAP may be necessary; and
- Provides a mechanism for the Permittee to identify and report modifications that have or will be made to their LIP.

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Enhancements in BMP Knowledge

A number of BMP evaluations, with countywide application, have been undertaken. These studies include the *BMP Effectiveness and Applicability for Orange County* (see **DAMP Appendix E1**); *Trash and Debris BMP Evaluation* (see **DAMP Appendix E2**); *Erosion Control BMP Effectiveness Study* (see **DAMP Appendix E3**); *Septic System Inventory and Assessment* (see **DAMP Appendix E4**); *Portable Toilet Pollution Prevention Program* (see **DAMP Appendix E5**), *Dry Weather Diversion Study* (see **DAMP Appendix E6**), *BMP Retrofit Opportunity Study* (see **DAMP Appendix E7**), and *Tustin Area Spill Containment Project* (see **DAMP Appendix E8**).

- *BMP Effectiveness and Applicability for Orange County*

This study was commissioned to review existing information on available structural BMPs and to organize and present specific information to facilitate the selection, siting, design, construction and maintenance of the most appropriate and cost-effective BMPs for a particular site in Orange County. The study recommended consideration be given to using extended detention basins, vegetated swales, vegetated buffer strips, bioretention, sand and organic filters, infiltration basins and infiltration trenches. In 2005, the study report was updated to include flow reduction BMPs developed in conjunction with the Nitrogen and Selenium Management Program.

- *Trash and Debris BMP Evaluation*

The objectives of the study were to review characterization information on trash and debris in Orange County and to identify candidate structural BMPs. The study concluded that site characteristics such as hydraulic head or footprint may be the principal determinants of BMP selection. During the reporting period the findings of this study were developed into a BMP selection guide for retrofit applications to modify an existing facility to provide a water quality (trash/debris removal) function. This guide will be finalized in 2006-07 and incorporated into **DAMP Appendix E**.

- *Erosion Control BMP Effectiveness Study*

The study was conducted to evaluate selected erosion methodologies for graded building pads with the goal of providing information on (1) the effect of time and weathering on product condition; (2) the frequency a product must be applied to be effective; (3) the maximum slope on which a product will perform effectively; and (4) how product performance is affected by soil types. The study comprised an evaluation of two types of hydraulic mulch (paper and wood based), two types of polyacrylimide (low and high molecular weights), and wood mulch (without a binding agent). The findings of the evaluation, which will be reported in the 2005-06 **Unified Report** and incorporated into **DAMP Appendix E**, will be used to form the basis of a program recommendation on county pre-approved

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BMPs.

- *Septic System Inventory and Assessment*

The objectives of this study were to develop an inventory/database of the septic systems in Orange County and to estimate the potential impact of septic systems on the quality of selected receiving waters. The final inventory/database compilation resulted in a list of over 2776 active septic systems which are widely dispersed throughout the County but are found in the highest concentrations in the Santa Ana River watershed. In the course of conducting eighty field surveys, one failed system was noted, representing a failure rate of 1.25% which was consistent with a similar finding in the literature. The study concluded that septic systems do not represent a significant source of constituents of concern (particularly fecal indicator bacteria and nutrients) for Orange County receiving waters.

- *Portable Toilet Pollution Prevention Program*

The objectives of the evaluation were to: (1) determine the nature of existing operational practices and regulatory oversight structure; (2) assess the extent to which the present practices associated with their use and maintenance were adversely impacting surface water quality; and (3) recommend appropriate revisions to current operational practices or regulatory oversight as warranted. The study determined that current standard industry practices for use, maintenance, transport and storage of portable toilets within Orange County are generally found to be sufficiently responsible to prevent impacts to receiving waters.

- *Dry Weather Diversion Study*

The dry weather diversion study was prepared to evaluate the diversions to the sanitary sewer that are in place or proposed within Orange County and to identify decision-making criteria to be used in selecting diversions as a preferred BMP. A recommended procedure for prioritizing implementation of diversion facilities was developed for the area of Orange County served by the Orange County Sanitation District.

- *BMP Retrofit Opportunities Study*

In 1997-98, the feasibility of incorporating BMP retrofits to optimize beneficial use attainment began to be addressed in the context of the long-term water quality planning initiatives being conducted within Orange County, a number of which were in cooperation with the Army Corps of Engineers. To supplement these earlier efforts, during 2003-04, a countywide evaluation was initiated using a GIS-based model to identify opportunities within the existing storm drain infrastructure for configuring/reconfiguring storm drains or channel segments in order to improve water quality and maintain the designated beneficial uses

SECTION 3.0, PLAN DEVELOPMENT

(see **DAMP Appendix E**). This effort was continued in 2005-06 with further use of the GIS-based model.

- *Tustin Area Spill Control (TASC) Demonstration Project*

To address the various regulatory, technical and coordination issues associated with preventing and planning for sanitary sewer overflows (SSOs), the County, as Principal Permittee, and the Orange County Sanitation District (OCSD) initiated a pilot project titled Tustin Area Spill Control (TASC) Demonstration Project. The project's accomplishments to date include:

- Development of SSO response procedures;
- Selection of primary and backup sewage spill response contractors for containment and recovery of sanitary sewer overflows;
- Conducting SSO desktop and hands-on field response training with the contractors; and,
- Development of a Memorandum of Understanding for delineating jurisdictional and financial responsibilities within the TASC project.

Enhancements in Technologies and Methodologies

A number of important initiatives are being supported by the Permittees aimed at the development of assessment techniques and methodologies to support more informed and consistent decision making across Southern California and statewide, including projects being undertaken with the Southern California Stormwater Monitoring Coalition, University of California, Irvine (UCI) for the development of the California Sustainable Watershed/Wetland Information Manager (CalSWIM) - prototype database, and the California Stormwater Quality Association (CASQA) initiative on program effectiveness assessment.

ings of the extensive water quality monitoring program during the reporting period are discussed in **Section 11.0**. However, concurrent with this data collection effort are a number of important initiatives, being supported by the Permittees, that are aimed at the development of assessment techniques and methodologies to support more informed and consistent decision making across Southern California. Notable amongst these initiatives are the Regional Research Monitoring Program (Stormwater Monitoring Coalition) and the Development of the California Sustainable Watershed/Wetland Information Manager (CalSWIM) - prototype Database.

- *Regional Research Monitoring Program (Stormwater Monitoring Coalition)*

The goal of the Southern California Stormwater Monitoring Coalition (SMC) is to identify region-specific research needs to better understand stormwater mechanisms and impacts, and to collectively sponsor the development of assessment techniques and methodologies that will enable more informed and consistent stormwater management decision-making across the region.

The SMC has initiated several of the 15 research projects identified in the research needs agenda, including: microbial source tracking method comparison,

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development of standardized sampling and analysis protocols, implementation of a laboratory intercalibration program, peak flow impact assessment, and the development of a regional integrated freshwater stream bioassessment monitoring program.

- *Development of California Sustainable Watershed/Wetland Information Manager (CalSWIM) – Prototype Database*

In response to a commitment to develop a prototype watershed database for cumulative impact assessment, the County of Orange as Principal Permittee has worked with UCI in developing and implementing a prototype database called the California Sustainable Watershed/Wetland Information Manager (CalSWIM). CalSWIM is a web-based expert system and database focused, initially, on Newport Bay and the Newport Bay watershed and can be viewed at www.calswim.org. The technical objective of CalSWIM is to provide an interactive platform for coastal wetland and watershed managers, planners, and engineers to explore alternative wetland and watershed management strategies.

- *CASQA Program Effectiveness Assessment White Paper*

The preliminary *White Paper* introduced and discussed key concepts and provided a standardized terminology related to the development of a comprehensive framework for assessing the effectiveness of stormwater management programs. It briefly defined and categorized potential outcomes, measures, and methods to be used in conducting assessments, and provided examples of how several programs are already utilizing these tools to assess their effectiveness. It also discussed the current needs of stormwater program managers with respect to program assessment. The issues addressed in this paper will form the basis for more detailed guidance on effectiveness assessment that is being developed by the CASQA Effectiveness Assessment Subcommittee during 2006.

3.3 Assessment

The Permittees recognize that knowledge in the field of stormwater quality is rapidly evolving and that the BMPs within the DAMP/LIP must be revised, deleted or added to in order for the program to stay current. In addition, water quality problems caused by urban stormwater that are identified either through environmental monitoring or regulatory interventions will elevate the need for additional or new BMPs to be implemented.

3.3.1 Iterative Planning Processes

While the ROWD itself serves to identify new programmatic commitments (see Sections 5.0 through 10.0), and is thereby evidence of the iterative approach, the DAMP has not, to date, detailed a process for programmatic change in response to improved knowledge of water quality controls and best management practices.

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DAMP Modification:

- Revise **DAMP Section 3.0** plan improvement process to detail the plan improvement process.

3.3.2 Programmatic Assessment

The PEA template created in 2003, and used as the basis of the 2002-03, 2003-04, and 2004-05 Annual Reports, has been helpful in establishing a series of metrics for spatial (i.e. jurisdictional comparisons) and temporal (i.e. year-to-year comparisons) assessments of program effectiveness. However, the reporting has highlighted significant inconsistencies in metric interpretation across the jurisdictions of the Orange County Stormwater Program that require further standardization.

ROWD Commitment:

- Prepare metric definitions and guidance to improve efficacy of the assessment process.

3.3.3 BMP Assessment

Over the course of the Third term Permits a number of BMP evaluations have been undertaken. The recommendations arising from these studies are presented as ROWD commitments or DAMP Modifications in the subsequent sections of this ROWD as appropriate.

3.4 Summary

The Permittees consider **DAMP Section 3.0** to define the iterative planning processes, informed by programmatic and BMP assessments, that are the basis of the DAMP. Based upon this evaluation of the process, the principal finding is that the language of the DAMP can be revised to better define these processes at separate, but interrelated, jurisdictional, watershed and countywide levels. The Permittees have also identified a need to standardized annual reporting data further in order to enhance effectiveness assessment.

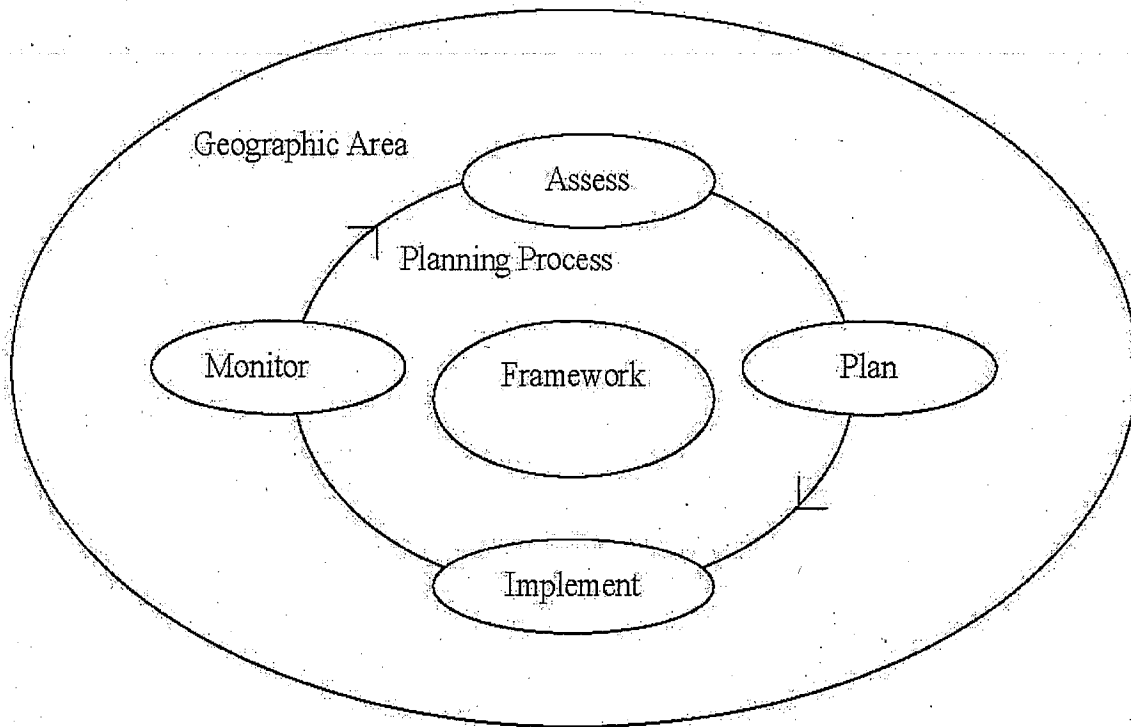
SECTION 3.0, PLAN DEVELOPMENT

Table 3.1: Comparison of Water Quality Planning Processes

	DAMP/LIP	Watershed Action Plan
<i>Geographic Area Covered by Plan</i>	Defined by political (city/County) boundaries.	Defined by hydrologic boundaries.
<i>Planning Process</i>	Focused on reducing discharges of pollutants in urban runoff and stormwater pollution on a uniform countywide basis. Directed by DAMP/LIP in conformance with NPDES permits requirements.	Focused on improving local receiving water quality where it is adversely impacted by urban runoff and stormwater pollution. Directed by NPDES permits and 303(d) list.
<i>Framework</i>	Directed by Stormwater Program committee structure and Regional Board review. Public consultation principally through CEQA process/Regional Board review.	Directed by municipal and public agency stakeholders. Characterized by public participation.
<i>Assessment</i>	Based on countywide municipal and regional cooperative investigations of stormwater and receiving water quality. Assessments are undertaken annually (LIP) and every 5 year (DAMP).	Based on information from watershed specific investigations. Assessments are undertaken on an annual basis.
<i>Planning</i>	Broad based approach with emphasis on well established pollution prevention and source control measures.	Pollutant specific approach with emphasis on treatment controls and consideration of innovative regional solutions.
<i>Implementation</i>	Individually by Permittees.	Individually and collaboratively by Watershed Permittees and other agencies.
<i>Monitoring</i>	Considers pollutant load reduction.	Considers beneficial use attainment.

SECTION 3.0, PLAN DEVELOPMENT

Figure 3.1: Water Quality Planning Process



SECTION 4.0, LEGAL AUTHORITY

4.0 LEGAL AUTHORITY

4.1 Introduction

The ability of the Permittees to comply with the requirements of the Third Term Permits is contingent upon the establishment, by each Permittee, of adequate legal authority to support control program implementation. **DAMP Section 4.0** discusses the development, starting in 1993, of a Model Water Quality Ordinance that was used by the Permittees as the basis of their local ordinances that were adopted by 1997. It also commits the Permittees to reviewing their ordinances to determine if any modifications are necessary in order to comply with new NPDES Permit requirements.

4.2 Accomplishments

With the adoption of the Third Term Permits in early 2002, the Permittees reviewed and verified the adequacy of their legal authority as the legal basis for the activities required for Third Term Permit compliance, primarily **DAMP Sections 7.0, 8.0, 9.0, and 10.0**. Following this initial review and verification, the responsibility for maintaining the efficacy of this key program element has rested with the Legal and Regulatory Task Force (see **Section 2.3.1**). During the reporting period, this Task Force has focused on a number of key areas including:

- Review and revision of legal authority as necessary regarding the stipulation of mandatory minimum BMPs in the San Diego Region;
- Review of inspection authority and "right of entry" at industrial/commercial facilities;
- Identification and resolution of overlap in legal authority within requirements of the WDR FOG program;
- Examination of the various Total Maximum Daily Load (TMDL) initiatives and their relationship to NPDES permits; and
- Perpetuation of BMP upkeep and maintenance in Water Quality Management Plans (WQMPs) for New Development/Significant Redevelopment.

Arising from the work of the Task Force have been continued findings of legal authority adequacy and the development of a model approach to WQMP recordation.

4.3 Assessment

The program effectiveness assessment outcome level for the **DAMP Section 4.0** is presented in **Table 4.1**. However, beyond confirming compliance with the Permits, the Permittees' legal authority can also be assessed in the context of the sections of the DAMP that it primarily supports.

4.3.1 Legal Authority to Implement Existing Development and ID/IC Programs

In 2005, an action taken under the Ordinance requiring a property owner to effect the removal of manure from a creek under the authority of the jurisdiction's water quality

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ordinance was formerly challenged under the ordinance's appeal provisions. The jurisdiction prevailed in the third party adjudicated appeal hearing and again at a subsequent trial in an action brought by the Orange County District Attorney. These results, in addition to the numerous successful administrative actions and citations detailed in **Sections 8.0, 9.0 and 10.0** of this report, validate the robustness of the Permittees' legal basis for implementing **DAMP Sections 9.0 and 10.0**.

4.3.2 Legal Authority to Implement New Development Program

The New Development/Significant Redevelopment component of the Program ends with permit close-out and the BMPs implemented in conformance with DAMP Section 7.0 transition to the Existing Development component. As noted in **Section 7.3.1**, the Permittees believe that the BMP approach to stormwater management could be more effectively sustained by ensuring the longevity and enforcement of the approved WQMP against subsequent property owners for ongoing responsibility for BMP maintenance. The ROWD Commitment in **Section 7** to develop guidance on the recordation process and appropriate documentation to enable such enforcement will be fulfilled under the aegis of the Legal and Regulatory Task Force.

4.4 Summary

The Permittees validated the legal basis for implementing the DAMP in early 2002 and over the balance of the period of the Third term Permit continued to review aspects their legal authority under the aegis of the Legal and Regulatory Task Force. This review and the formal legal challenge to this authority in late 2005 and early 2006 have served to affirm the basic robustness of the Permittees' water quality ordinances.

SECTION 4.0, LEGAL AUTHORITY

Table 4.1: Current and Potential Outcome Levels (Legal Authority)

Legal Authority	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Water Quality Ordinance	<ul style="list-style-type: none"> ✓ Adopt and Maintain Adequate Legal Authority 					
Training	<ul style="list-style-type: none"> ✓ Track number/type of training sessions 	<ul style="list-style-type: none"> P Surveys show improved knowledge 				
<p>Key: ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level</p>						

SECTION 5.0, MUNICIPAL ACTIVITIES

5.0 MUNICIPAL ACTIVITIES

5.1 Introduction

The Permittees own and operate facilities and build and maintain much of the transportation, drainage and recreational infrastructure of the urban environment. The primary purpose of **DAMP Section 5.0** is to ensure that, through a systematic process of evaluation, BMPs are incorporated into these activities. **DAMP Section 5.0** also requires a commitment to implement Integrated Pest Management (IPM) approaches. In addition, **DAMP Appendix C** requires performance reporting related to a number of Established BMPs that have been recognized, since the inception of the Program, as significant contributors to pollutant load reduction.

5.2 Accomplishments

5.2.1 Model Municipal Activities Program

The Model Municipal Activities Program was developed and implemented in 2002-03 and replaced the environmental performance reporting program of the Second Term Permits. It establishes a framework for conducting a systematic program of evaluation and BMP implementation targeting fixed facilities, field programs and drainage facilities. The Model Municipal Activities Program requires the Permittees to:

- Compile facility and program inventories:

2,302 facilities have been reported as inventoried (2004-05 reporting period) and are subject to the program (Table 5.2; Figure 5.1).

- Prioritize facilities and programs based upon water quality threat and receiving water sensitivity:

There are a reported 1,070 high priority, 126 medium priority, and 1,106 low priority municipal facilities (Table 5.2; Figure 5.1)

- Establish model maintenance procedures:

Sets of BMP factsheets were produced for Fixed Facilities (13 factsheets), Field Programs (7 fact sheets) and Drainage Facilities (1 fact sheet). The factsheets are available at

http://www.ocwatersheds.com/StormWater/documents_damp_lip.asp
(Section 5 of the County of Orange/Orange County Flood Control District 2005-06 Local Implementation Plan).

- Conduct inspections:

Standard general and activity specific inspection forms have been developed for Fixed Facilities, Field Programs and Drainage Facilities. In addition, by the end

SECTION 5.0, MUNICIPAL ACTIVITIES

of 2006, 2,326 municipal facilities were reported as having been inspected for stormwater issues (Table 5.3).

- Implement BMPs:

At the end of the 2004-05 reporting period, 1,968 municipal facilities were determined to have full BMP implementation (Table 5.3).

- Undertake training:

Three training modules have been developed, specifically, Municipal Activities program Training, Fixed Facility Model Maintenance Procedure Training and Field Program Model Maintenance Procedure Training.

5.2.2 Model Integrated Pest Management, Pesticide and Fertilizer Guidelines

Landscaping is best managed using an integrated system of tactics that include biological, mechanical, physical, cultural, and chemical control. This system, known as IPM, relies on careful monitoring of the plants to identify when a chemical or other control action should be taken. In June 2001, the Principal Permittee entered into a five-year agreement with the University of California Cooperative Extension (UCCE) to conduct water quality monitoring studies and implement water quality improvement programs in areas where the University has special expertise, particularly related to fertilizer and pesticide applications (Note: On May 10, 2005, the agreement was revised and extended for up to six additional years). In close cooperation with the UCCE, Model IPM, Pesticide and Fertilizer Guidelines were completed in 2002-03. The Guidelines require the Permittees to:

- Conduct IPM self-audits:

With oversight and assistance from UCCE, the Permittees have completed self-audits of the Model IPM, Pesticide and Fertilizer Management Guidelines implementation. Audits have been conducted annually as part of annual progress reporting.

- Implement the Model IPM, Pesticide and Fertilizer Management Guidelines based upon IPM principles:

Fifty-seven percent (57%) of the Permittees are able to report that they operate under a formal written IPM policy.

Thirty-five (35) Permittees reported that approximately 363,146 pounds of nitrogen were applied to 6,862 acres of public land during the 2004-05 reporting period representing a third consecutive year of reduction (the 2005-06 figure represents a 2% decrease from the pounds per acre of nitrogen usage in 2003-04; a decrease of 27% from 2002-03; and a 12% decrease from 2001-02) (Table 5.4).

SECTION 5.0, MUNICIPAL ACTIVITIES

During the 2004-05 reporting period, approximately 19,227 pounds of active ingredients (AI) of pesticides were applied by the Permittees representing a 30% reduction in use since the inception of the program (Table 5.3).

- Undertake Training:

Training has been provided annually.

5.2.3 Established BMPs

Performance indicators for certain Established BMPs have been tracked since the inception of the Model Municipal Activities Program. These BMPs are street sweeping, solid waste collection, catch basin stenciling, drainage facility maintenance, trash & debris Control (formerly litter control), household hazardous waste collection, and used oil grant participation.

- Street Sweeping:

All Permittees maintain street sweeping programs in residential, commercial and/or industrial areas. In 1993 the Permittees compiled information regarding their existing street sweeping schedules and practices and have subsequently changed elements of their programs such as the types of sweepers purchased, the frequency of sweeping, and the use of parking restrictions in order for the street sweeping program to aid in water quality improvements.

85,516 tons of material was removed from the streets and gutters during the 2004-05 reporting period. This effort appears to represent a 12% increase for weight of material collected over the previous reporting period and a 25% increase over the tons of material reported in 2002-03. This amount represents a 87% increase in the weight of material collected over the 2001-02 total, indicating a marked increase in effort in this area of infrastructure maintenance in the Third Term Permit cycle. (Table 5.5; Figure 5.2).

- Solid Waste Collection:

The Permittees have solid waste collection programs for public, residential, commercial and industrial areas.

3,959,590 tons of solid waste was collected during the 2004-05 reporting period. This effort appears to represent a 9.1% increase in the amount of solid waste collected over the previous reporting period, an 8.8% increase over the reported total in 2002-03, and a 7.0% increase over the reported total in 2001-02 (Table 5.6; Figure 5.3).

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- Catchbasin Stenciling:

Over 37,000 stormdrain inlets have been stenciled. Each year 6,000 – 9,000 inlets are re-stenciled.

- Drainage Facility Maintenance:

The Permittees inspect the drainage system within their jurisdictions annually and clean out accumulated debris on an as needed basis. Removal of accumulated debris and sediment is carried out either manually or by mechanical methods using flushing – in emergency situations only – in accordance with established maintenance procedures (Model Maintenance Procedure DF-1). By removing this material from the catch basin inlets and stormdrain system, the Permittees make a significant contribution in preventing the passage of these materials in downstream receiving waters.

5,612 tons of debris was removed from drainage facilities in 2004-05. This amount represents a 43% decrease in the amount of debris collected from drainage facilities when compared to the previous reporting period, a 77% decrease in the amount collected in 2002-03 and a 6.5% decrease in the amount collected in 2001-02 (The 2002-03 reported total suggests inconsistent reporting of this Indicator or other environmental factors such as Santa Ana winds) (Table 5.7; Figure 5.2; Figure 5.3).

- Trash & Debris Control:

Trash and debris control is an important element in the diversion of litter and other solid materials from the storm drain system. Although most Permittees historically viewed litter control as a public service program (i.e., preventing visual blight, etc.), rather than as a pollution control problem, it is now considered important as a visual indicator of water quality and an aspect of the recreational use of a waterbody.

Eleven (11) trash and debris booms have been installed in flood control channels and harbors to recover floatable material.

Inner-Coastal and Watershed Cleanup Day, which engages the public directly in the cleanup of trash and debris, has been heavily promoted by the Orange County Stormwater Program. In 2002, 1,722 volunteers joined in and collected 29,503 pounds of trash and 5,350 pounds of recyclables. In 2003, 2,473 volunteers collected 52,474 pounds of trash and 5,447 pounds of recyclables at 37 sites. In 2004, 6,001 volunteers collected 78,390 pounds of trash and 9,563 pounds of recyclables at 38 sites. In 2005 the number of clean-up sites increased to 43.

The Permittees have participated in the preparation of a number of strategic assessments of litter control efforts including *A Review Of Current Trash Pollution and Mitigation Efforts in Orange County: Final Report January 2006* prepared under

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the auspices of the Trash & Debris Task Force and the Algalita Marine Foundation/California Coastal Commission *Plastic Debris: Rivers To Sea* initiative in which the Principal Permittee was represented on the advisory board.

- Household Hazardous Waste Collection:

Orange County has a household hazardous waste collection program administered by the Integrated Waste Management Department (IWMD). The program comprises four sites (Anaheim, Huntington Beach, San Juan Capistrano, and Irvine).

A total of 6,303,938 pounds of household hazardous waste was collected in the 2004-05 reporting period representing a 9.8% increase from the previous reporting period, a 48.7% increase from the 2002-03 reporting period, and 68.7% increase from the 2001-02 reporting period (Table 5.8; Figure 5.6).

- Used Oil Grant Participation:

Most of the Permittees, as well as the County's Health Care Agency, currently implement used oil recycling programs. These programs involve comprehensive public outreach including television and newspaper advertising, displays at community events, and the distribution of used oil containers at no cost to residents.

Twenty seven (27) Permittees reported having a Used Oil Grant participation program for 2004-05, 28 Permittees in 2003-04 and 27 Permittees in 2002-03 (Table 5.9; Figure 5.7).

5.3 Assessment

The current and potential program effectiveness assessment outcome levels for the Municipal Activities Program are presented in Table 5.1a (Model Municipal Activities Program) and Table 5.1b (Model IPM and Fertilizer Guidelines).

5.3.1 Model Municipal Activities Program

The Model Municipal Activities Program superceded the Environmental Performance Reporting (EPR) program of the Second Term Permits. Nonetheless, elements of the EPR program were carried over into the 2003 DAMP. The ROWD is therefore recognized by the Permittees as an opportunity to eliminate the redundant vestiges of the prior inspection and oversight program.

The fixed facility inventory has fluctuated significantly over the reporting period (see Table 5.2) pointing to the need for the better definition of key program terms.

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Indicator - Prioritization of Facilities: For 2004-05, 2,302 industrial facilities were prioritized, 46% of which were ranked as high priority; for 2003-04, 2,418 industrial facilities were prioritized, 49% of which were ranked as high priority; and for 2002-03, 2,380 industrial facilities were prioritized, 46% of which were ranked as high priority (Table 5.2).

Level 1: Implement Program

Level 3: Behavior Change

In addition, the number of designated "high priority" facilities has remained at approximately 1,100 annually (Table 5.2) despite the initial intention for the program to be risk-based and the significant level of BMP implementation (i.e. risk mitigation) that has occurred over the period of the Third Term Permits. It is also apparent that the application of a "high priority" designation has varied significantly between the Permittees, reflecting both different SAR and SDR Permit requirements and individual Permittee interpretations of the prioritization process.

DAMP Modification:

- Eliminate Environmental Performance Reporting (EPR) program (which is duplicative of Model Municipal Activities Program).
- Define "fixed facilities," "field programs," and "drainage facility sites."

ROWD Commitment:

- Standardize SDR and SAR definitions of "high priority" and develop prioritization process that is better predicated on the threat (diminished by BMP implementation) posed by the facility, and considers the presence of "constituents of concern."

5.3.2 Model Integrated Pest Management, Pesticide and Fertilizer Guidelines

The majority of fertilizers are applied to turfgrass with a smaller amount utilized on landscape material (trees, shrubs, groundcovers, and vines). Countywide, municipal fertilizer use has declined. However, other indicators of a shift toward more of an IPM-

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oriented approach show little change; e.g. utilization of slow-release fertilizers, timing of fertilizer applications, and use of soil analyses.

Headline Indicator -Reduction in Total Fertilizer Usage (Nitrogen): Thirty-five Permittees (35) reported that approximately 363,146 pounds of nitrogen were applied to 6,862 acres of public land during the 2004-05 reporting period (53 lbs/acre). This figure represents a 2% decrease from the pounds per acre of nitrogen usage in 2003-04; a decrease of 27% from 2002-03; and a 12% decrease from 2001-05.

Level 3: Behavior Change

Headline Indicator - Reduction in Total Fertilizer Application (Phosphorus): Thirty-five Permittees reported that 81,600 pounds of phosphorus were applied to 6,862 acres of public land during the 2004-05 reporting period (12 lbs/acre). This figure represents a 20% decrease from the pounds per acre of phosphorus applied in 2003-04; a decrease of 33% from 2002-03; and an 8% decrease from 2001-05.

Level 3: Behavior Change

There also appears to have been an overall reduction in pesticide use. However, as with fertilizer use, other indicators (e.g. equipment calibration, clean-up of overspray, use of non-chemical pest control methods) show little change. The absence of a trend in these indicators shows that factors other than the adoption of IPM approaches (e.g. budgetary constraints) may be the more significant in explaining the overall reduction in pesticide use. Indeed, toward the end of the current Permit term, only fifty-seven percent (57%) of the Permittees are able to report that they operate under a formal written IPM policy.

Headline Indicator - Reduction in Pesticide Application: During the 2004-05 reporting period, approximately 19,227 pounds of active ingredient of pesticides was applied by Permittees. This represents an approximately 30% decrease in pounds of pesticide applied compared to 25,022 pounds of active ingredient pesticides applied in 2003-04, and 24,750 pounds of active ingredient applied in 2002-03.

Level 3: Behavior Change

ROWD Commitment:

- Develop Model Integrated Pest Management, Pesticide and Fertilizer Guidelines into a Model Program (rather than guidelines) with implementation goals and including model contract language.
- Redefine IPM (pesticide use) indicators.

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5.3.3 Established BMPs

An annual evaluation of the routine preventive maintenance activities is conducted and, where appropriate, improvements or new practices are implemented to further reduce the amount of pollutants discharged into the storm drain system. An important component of this evaluation process is the documentation and collection of data related to these selected activities.

Trash and Debris Controls (formerly Litter Control)

There are currently three aspects to trash and debris control that have been reported over the period of the Third Term Permits, specifically, the deployment of trash and debris booms, public participation in Inner-Coastal and Watershed Cleanup Day, and an enhanced program of catchbasin cleaning.

Currently, eleven (11) trash and debris booms have been installed in flood control channels and harbors to recover floatable material. However, the Permittees recognize that the stormdrain infrastructure provides for retrofit opportunities in other areas. Indeed, a number of recent technical reports prepared by the Permittees and Coastal Commission examining technologies for trash and debris control, as well as extensive independent jurisdictional experience with inlet devices, establish a basis for the development of policy recommendations in this area.

ROWD Commitment:

- Develop recommendations for the selection and installation of drain inlet screens.

Every year the California Coastal Commission and Trails-4-All sponsor the Inner-Coastal and Watershed Cleanup Day to help cleanup the trash and debris that accumulates along the coastline, fouling the beaches and tidal zone. This event has been sponsored and heavily promoted by the Orange County Stormwater Program. In 2002, 1,722 volunteers joined in and collected 29,503 pounds of trash and 5,350 pounds of recyclables. In 2003, 2,473 volunteers collected 52,474 pounds of trash and 5,447 pounds of recyclables. In 2004, 6,001 volunteers collected 78,390 pounds of trash and 9,563 pounds of recyclables. In 2005, the number of clean-up sites increased to 43. The sustained year-to-year increases in public participation and material recovery point to the effectiveness of the Permittees' efforts in promoting this event.

Catchbasins are inspected annually and cleaned as appropriate. In the 2004-05 reporting period 86% of the catchbasin inventory in Orange County was cleaned, the highest level in the first three years of the Third Term Permits.

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Solid Waste Collection

During the last reporting period, 35 Permittees reported the collection of nearly 4.0 million tons of solid waste. This effort compares to the total of 3.62 million tons of solid waste reported by 30 Permittees in 2003-04, 3.64 million tons of solid waste reported by 26 Permittees in 2002-03, and 3.70 million tons of solid waste reported by 33 Permittees in 2001-05. While the Permittees encourage the public, through education and outreach, to properly dispose of their trash, and this encouragement may be contributing to the increased level of collection in the most recent reporting period, there are significant discrepancies in the year-to-year reporting of individual jurisdictions.

Headline Indicator - Solid Waste Collection: 3,959,590 tons of solid waste was collected during the 2004-05 reporting period. This effort appears to represent a 9.1% increase in the amount of solid waste collected over the previous reporting period, an 8.8% increase over the reported total in 2002-03, and a 7.0% increase over the reported total in 2001-05.

In addition to education, the Permittees have considered the extent to which the cradle-to-grave management of solid waste can be improved to increase the effectiveness of collection efforts. This consideration has identified municipal oversight of contract solid waste collection and disposal as another area for possible improvements in service effectiveness.

ROWD Commitment:

- Develop model language for municipal trash collection and haulage contracts that addresses water quality protection issues.

Drainage Facility Maintenance

Drainage facilities are an integral component of the Model Municipal Activities Program and, as high priority facilities, subject to annual inspection. While the reported total length of drainage facilities has increased over successive years, the amount of material recovered has decreased. This reduction may reflect the increasing effectiveness of source controls and the impact of changing management practices such as street sweeping on concrete channels. However, both inconsistent year-to-year reporting and the profound influence of environmental variables (e.g. prevalence of Santa Ana wind conditions and severity of the wet season) may also be explanatory factors.

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Headline Indicator - Drainage Facility Maintenance: 5,612 tons of debris was removed from drainage facilities during the 2004-05 reporting period. This amount represents a 43% decrease in the amount of debris collected from drainage facilities when compared to the previous reporting period, a 77% decrease in the amount collected in 2002-03 and a 6.5% decrease in the amount collected in 2001-02.

Street Sweeping

The year-to-year increases in the amount of material recovered from the urban environment by street sweeping suggest success regarding the Permittees' efforts to continue to improve the effectiveness (e.g. increasing use of drain inlet screens, regenerative air sweepers, parking controls etc.) of this maintenance practice.

Headline Indicator - Street Sweeping: 85,516 tons of material was removed from the streets and gutters during the 2004-05 reporting period. This effort appears to represent a 12% increase for weight of material collected over the previous reporting period and a 25% increase over the tons of material reported in 2002-03. This amount represents an 87% increase in the weight of material collected over the 2001-02 total, indicating increasing effectiveness in this area of infrastructure maintenance in the Third Term Permit cycle.

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Table 5.1a: Current and Potential Outcome Levels (Municipal Activities)

Model/Municipal Activities Program	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Inventory	✓ Maintain Inventory					
Prioritization	✓ Assign Priorities		✓ Change in prioritization level			
Inspection	✓ Conduct and track # of inspections		✓ # BMPs implemented	P Load reduction associated with BMPs		
Training	✓ Track number/type of training sessions	P Surveys show improved knowledge				
<p><u>Key:</u> ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level</p>						

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Table 5.1b: Current and Potential Outcome Levels (Municipal Activities)

Model IPM and Fertilizer Guidelines	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Model IPM	✓ Formal Policy		✓ Reduction in pesticide use			
Fertilizer Guidelines	P Formal Policy		✓ Reduction in fertilizer use			
Training	✓ Track number/type of training sessions	P Surveys show improved knowledge				
Key: ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level						

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Table 5.2: Countywide Permittees' Fixed Facility Inventory and Prioritization

Permittee	Low		Medium		High		High		High		Total		Total		Total		
	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2004-05
Aliso Viejo	0	1	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1
Anaheim	99	63	0	0	0	0	15	0	0	114	63	114	63	114	63	62	62
Brea	27	30	31	0	0	0	1	1	1	28	31	28	31	28	31	31	31
Buena Park	3	14	14	15	0	0	2	5	5	20	19	20	19	20	19	19	19
Costa Mesa	51	51	51	0	0	0	10	10	10	61	61	61	61	61	61	61	61
Cypress	17	14	14	8	8	8	1	1	1	26	23	26	23	26	23	23	23
Dana Point	14	13	13	0	0	0	8	9	10	22	22	22	22	22	22	23	23
Fountain Valley	28	28	28	0	0	0	1	1	1	29	29	29	29	29	29	28	28
Fullerton	90	94	94	0	0	0	1	1	1	91	95	91	95	91	95	95	95
Garden Grove	55	55	55	1	1	1	0	0	0	56	56	56	56	56	56	56	56
Huntington Beach	66	78	79	2	7	7	12	8	8	80	93	80	93	80	93	94	94
Irvine	39	39	44	12	12	12	1	3	3	52	54	52	54	52	54	59	59
La Habra	39	31	31	0	15	15	3	7	7	42	53	42	53	42	53	53	53
La Palma	1	1	2	1	1	1	2	2	2	4	4	4	4	4	4	4	4
Laguna Beach	46	46	46	48	45	46	73	75	74	167	166	167	166	167	166	166	166
Laguna Hills	0	0	0	0	0	0	20	20	20	20	20	20	20	20	20	20	20
Laguna Niguel	15	15	18	0	0	0	19	19	39	34	34	34	34	34	34	34	34
Laguna Woods	3	3	3	0	0	0	1	34	1	4	4	4	4	4	4	4	4
Lake Forest	7	0	0	0	0	0	0	8	9	7	8	7	8	7	8	9	9
Los Alamitos	14	14	14	NA	0	0	116	127	0	130	141	130	141	130	141	14	14
Mission Viejo	40	40	40	2	2	2	25	23	22	67	65	67	65	67	65	64	64
Newport Beach	20	21	21	1	1	1	4	4	4	25	26	25	26	25	26	26	26
Orange	27	26	29	25	29	29	2	2	2	54	57	54	57	54	57	60	60
Placentia	25	35	35	9	9	9	1	1	1	35	36	35	36	35	36	36	36
R S Margarita	3	0	4	0	0	0	669	669	669	672	669	672	669	672	669	673	673
San Clemente	73	20	73	0	19	0	17	51	17	90	90	90	90	90	90	90	90
S J Capistrano	18	18	18	0	0	0	38	38	38	56	56	56	56	56	56	56	56
Santa Ana	108	112	116	1	1	1	1	1	1	110	114	110	114	110	114	118	118
Seal Beach	32	32	39	0	0	0	3	3	5	35	35	35	35	35	35	44	44
Stanton	NA	19	19	NA	0	0	NA	1	1	NA	20	NA	20	NA	20	20	20
Tustin	24	22	22	0	0	0	4	4	4	28	26	28	26	28	26	26	26
Villa Park	0	1	1	0	0	0	2	1	1	2	2	2	2	2	2	2	2
Westminster	28	28	28	0	0	0	1	1	1	29	29	29	29	29	29	29	29
Yorba Linda	34	29	29	0	3	3	3	2	2	37	34	37	34	37	34	34	34
County of Orange	102	101	95	0	0	0	50	48	48	152	149	152	149	152	149	145	145
TOTALS	1,148	1,094	1,106	125	144	126	1,107	1,180	1,070	2,380	2,418	2,380	2,418	2,380	2,418	2,302	2,302

NA = Not Available

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Table 5.3: BMP Implementation

PERMITTEE	FULLY Implemented 2002-03	FULLY Implemented 2003-04	FULLY Implemented 2004-05	PARTIALLY Implemented 2002-03	PARTIALLY Implemented 2003-04	PARTIALLY Implemented 2004-05	No BMPs Implemented 2002-03	No BMPs Implemented 2003-04	No BMPs Implemented 2004-05
Aliso Viejo	5	11	9	NA	0	0	NA	0	
Anaheim	147	52	65	NA	9	13	NA	0	
Brea	18	NA		0	NA	1	0	NA	
Buena Park	756	16	151	0	2	102	0	0	29
Costa Mesa	7	8	8	3	2	2	0	0	
Cypress	21	0		2	1	1	NA	0	
Dana Point	NA	NA	19	NA	NA	4	NA	NA	
Fountain Valley	79	51	53	2	0		2	0	
Fullerton	84	95	95	NA	0		NA	0	
Garden Grove	6	53	55	0	3	1	0	0	
Huntington Bch.	69	4	79	5	9	19	1	5	3
Irvine	54	54	59	0	0		0	0	
La Habra	0	1	29	4	2	26	NA	0	16
La Palma	1	1	1	3	3	3	0	0	
Laguna Beach	NA	NA	74	NA	NA		NA	NA	
Laguna Hills	16	20	35	2	0		0	0	
Laguna Niguel	NA	6	7	NA	12	29	NA	0	
Laguna Woods	3	6	3	1	7	3	NA	0	
Lake Forest	7	8	9	0	0		0	0	
Los Alamitos	NA	140	141	NA	1		NA	0	
Mission Viejo	23	23	28	26	44	25	18	0	
Newport Beach	8	19	19	0	7	7	0	0	
Orange	39	58	63	0	0		0	0	
Placentia	28	0		7	34	32	NA	0	
R S Margarita	672	669	673	0	0		0	0	
San Clemente	NA	NA		NA	NA		NA	NA	
S J Capistrano	54	56	37	0	0		0	0	
Santa Ana	NA	114	117	NA	0	1	NA	0	
Seal Beach	NA	NA		NA	NA		NA	NA	
Stanton	NA	20	19	NA	0	1	NA	0	
Tustin	NA	12	20	NA	31	23	NA	0	
Villa Park	0	0	0	2	2	0	0	0	1
Westminster	28	29	29	1	0		0	0	
Yorba Linda	2	29	14	0	15		0	0	
County of Orange	9	19	57	7	57	16	0	5	0
TOTALS	2,136	1,574	1,968	65	241	309	21	10	49

NA = Not Available

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Table 5.4: 2004-05 Fertilizers and Amounts Applied By Permittee

Permittee	2002-03				2003-04				2004-05						
	Acres	Total N	Total P	N/accre	P/accre	Acres	Total N	Total P	N/accre	P/accre	Acres	Total N	Total P	N/accre	P/accre
Aliso Viejo	6.0	0.0	0.0			6.0	220.0	30.0	36.7	5.0	6.0	220.0	30.0	36.7	5.0
Anaheim	771.0	19,197.6	3,826.0	3,199.6	637.7	609.0	16,895.6	3,977.9	27.7	6.5	311.0	13,862.0	3,429.4	44.5	11.0
Brea	75.0	1,955.4	692.4	325.9	115.4	84.0	808.7	205.9	9.6	2.5	118.7	1,049.3	247.5	8.8	2.1
Buena Park	182.0	160.0	60.0	26.7	10.0	125.0	4,405.0	855.0	35.2	6.8	55.0	23,505.0	855.0	427.4	15.5
Costa Mesa	200.0	11,340.0	3,780.0	1,890.0	630.0	200.0	23,450.8	5,700.0	117.3	28.5	200.0	12,127.0	1,878.0	60.6	9.4
Cypress	69.0	420.0	140.0	70.0	23.3	69.0	23,450.8	5,700.0	339.9	82.6	9.0	210.0	70.0	23.3	7.8
Dana Point	50.0	4,800.0	720.0	800.0	120.0	50.0	4,800.0	720.0	96.0	14.4	50.0	960.0	360.0	19.2	7.2
Fountain Valley	200.0	1,017.5	405.0	169.6	67.5	200.0	2,441.0	1,183.0	12.2	5.9	200.0	2,441.0	1,183.0	12.2	5.9
Fullerton	50.0	3,397.5	1,672.5	566.3	278.8	120.0	4,911.5	1,408.5	40.9	11.7	NA	3,414.0	1,303.5	NA	NA
Garden Grove	180.0	2,771.8	1,343.4	462.0	223.9	170.0	4,085.0	1,355.0	24.1	7.9	170.0	5,285.0	1,712.5	31.0	10.1
Huntington Beach	596.0	25,178.6	4,932.6	4,196.4	822.1	606.0	25,133.6	4,887.6	41.5	8.1	606.0	25,133.6	4,887.6	41.5	8.1
Irvine	736.5	70,139.5	14,755.5	11,689.9	2,459.2	773.0	74,070.6	24,712.2	95.8	32.0	846.6	61,240.4	14,516.2	72.3	17.1
La Habra	108.0	3,080.0	1,030.0	513.3	171.7	108.0	2,943.5	889.5	27.3	8.2	108.0	2,474.0	942.0	22.9	8.7
La Palma	30.0	1,280.0	480.0	213.3	80.0	15.0	640.0	240.0	42.7	16.0	15.0	640.0	240.0	42.7	16.0
Laguna Beach	42.0	1,350.0	525.0	225.0	87.5	42.0	881.4	330.9	21.0	7.9	50.0	1,000.6	375.6	20.0	7.5
Laguna Hills	125.0	8,170.8	2,161.4	1,361.8	363.6	125.0	8,125.8	2,161.4	65.0	17.5	125.0	8,155.7	2,196.4	65.2	17.6
Laguna Niguel	151.0	33,079.5	11,461.1	5,513.2	1,910.2	151.0	37,929.2	16,528.2	251.2	122.7	151.0	20,737.5	5,763.7	137.3	38.2
Laguna Woods	15.0	642.5	145.5	107.1	24.3	5.0	497.5	142.5	99.5	28.5	5.0	510.0	210.0	102.0	42.0
Lake Forest	167.0	7,680.0	2,880.0	1,280.0	480.0	72.0	8,040.0	3,015.0	111.7	41.9	71.8	13,803.0	4,803.0	192.2	66.9
Los Alamitos						15.0	100.0	20.0	6.7	1.3	14.3	100.0	20.0	7.0	1.4
Mission Viejo	975.0	100,678.1	17,453.1	16,779.7	2,908.9	975.0	76,503.0	9,042.0	78.5	9.3	702.0	78,611.0	7,995.0	112.0	11.4
Newport Beach	300.0	5,967.0	2,837.0	994.5	472.8	170.0	4,095.0	1,355.0	24.1	7.9	300.0	4,800.0	2,760.0	16.0	9.2
Orange	243.4	21,479.0	3,646.0	3,579.8	607.7	190.0	6,233.5	1,560.3	32.8	8.2	243.0	6,506.2	1,478.5	26.8	6.1
Placentia	140.0	2,340.0	580.0	390.0	96.7	40.0	1,510.0	330.0	37.8	8.3	108.0	2,760.0	580.0	25.6	5.4
Rancho Santa Margarita						NA	NA	NA	NA	NA	0.2	8.0	3.0	40.0	15.0
San Clemente	151.0	13,217.5	3,132.5	2,202.9	522.1	305.0	16,492.5	3,980.0	54.1	13.1	160.0	10,200.0	2,800.0	56.7	15.6
San Juan Capistrano	173.0	6,562.0	1,704.4	1,093.7	284.1	176.0	4,771.1	1,079.0	27.1	6.1	176.0	3,606.0	1,072.5	20.5	6.1
Santa Ana	400.0	8,022.5	2,476.5	1,337.1	412.8	400.0	9,766.8	2,985.0	24.4	7.5	400.0	9,754.3	2,985.0	24.4	7.5
Seal Beach	10.0	0.0	0.0	0.0	0.0	55.0	320.0	120.0	5.8	2.2	55.0	320.0	120.0	5.8	2.2
Stanton						NA	NA	NA	0.0	NA	10.0	471.0	228.0	47.1	22.8
Tustin	160.0	5,679.5	1,022.5	946.6	170.4	160.0	3,105.0	612.5	19.4	3.8	164.0	1,065.0	75.0	5.8	0.4
Villa Park						2.0	0.0	0.0	0.0	0.0	10.0	400.0	200.0	40.0	20.0
Westminster	15.0	675.0	375.0	112.5	62.5	15.0	605.0	305.0	40.3	20.3	15.0	605.0	305.0	40.3	20.3
Yorba Linda	722.0	22,524.6	7,604.0	3,754.1	1,267.3	722.0	22,511.5	11,636.0	31.2	16.1	699.0	34,325.3	10,661.8	49.1	15.3
County of Orange	967.6	30,283.3	10,471.4	5,047.2	1,745.2	619.5	17,025.8	6,274.0	20.8	7.7	667.0	12,875.8	5,312.4	19.3	8.0
Totals	7,990.5	413,089.2	102,332.8	66,848.2	17,055.5	7,574.5	406,778.9	116,331.5	1,998.1	566.2	6,861.6	363,145.6	81,599.5	1,896.3	462.6

NA = Not Available

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.5: Volume of Street Sweeping Material Collected

PERMITTEE	Total Weight of Material Collected (Tons)* FY 2002-03	Total Weight of Material Collected (Tons)* FY 2003-04	Total Weight of Material Collected (Tons)* FY 2004-05
Aliso Viejo	96	120	110
Anaheim	4,500	4,500	4,500
Brea	800	800	1,179
Buena Park	1,830	1,475	1,475
Costa Mesa	1,730	1,810	1,846
Cypress	526	525	525
Dana Point	465	984	160
Fountain Valley	2,104	2,000	2,000
Fullerton	15,925	19,102	12,832
Garden Grove	NA	NA	2,940
Huntington Beach	3,282	3,434	3,516
Irvine	2,500	2,500	2,700
La Habra	7	5	5
La Palma	375	384	1,170
Laguna Beach	684	675	771
Laguna Hills	194	NA	315
Laguna Niguel	449	NA	423
Laguna Woods	3	62	14
Lake Forest	550	1,044	630
Los Alamitos	NA	3,500	
Mission Viejo	1,192	1,503	1,502
Newport Beach	4,044	4,150	28,800
Orange	11,880	12,000	3,000
Placentia	104	572	531
Rancho Santa Margarita	NA	12	92
San Clemente	1,164	1,177	523
San Juan Capistrano	525	605	676
Santa Ana	6,825	6,825	6,825
Seal Beach	2,085	2,084	
Stanton	NA	843	2,529
Tustin	874	904	1,025
Villa Park	89	134	135
Westminster	1,749	1,041	1,175
Yorba Linda	608	690	720
County of Orange/OCFCD	996	834	873
Totals	68,155	76,294	85,516

NA = Not Available

*Tons=3 cubic yards per Michigan Department of Environmental Quality,
 Waste and Hazardous Materials Division

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.6: Solid Waste Collection

PERMITTEE	Total Quantity of Solid Waste Collected 2002-03 (Tons)	Total Quantity of Solid Waste Collected 2003-04 (Tons)	Total Quantity of Solid Waste Collected 2004-05 (Tons)
Aliso Viejo	41,000	43,723	38,063
Anaheim	453,015	460,000	460,000
Brea	406,000	407,543	86,877
Buena Park	NA	80	100,000
Costa Mesa	287,090	279,850	186,753
Cypress	45,197	46,197	52,673
Dana Point	52,480	79,909	32,348
Fountain Valley	63,743	53,702	59,376
Fullerton	177,555	NA	187,385
Garden Grove	NA	NA	197,550
Huntington Beach	274,853	272,836	286,717
Irvine	295,000	292,600	287,500
La Habra	NA	31,043	37,000
La Palma	16,000	NA	18,000
Laguna Beach	48,390	58,550	47,700
Laguna Hills	43,783	39,803	56,031
Laguna Niguel	81,046	79,655	82,059
Laguna Woods	NA	23,000	25,000
Lake Forest	103,000	86,200	89,612
Los Alamitos	NA	NA	NA
Mission Viejo	105,600	108,000	108,252
Newport Beach	NA	39,992	40,000
Orange	234,040	210,836	215,400
Placentia	58,861	NA	63,000
Rancho Santa Margarita	NA	NA	63,356
San Clemente	85,339	85,339	88,956
San Juan Capistrano	68,417	76,166	81,652
Santa Ana	258,408	354,000	474,350
Seal Beach	45,292	45,000	26,136
Stanton	NA	35,004	41,500
Tustin	80,629	80,000	84,024
Villa Park	NA	10,200	10,500
Westminster	94,750	85,372	93,294
Yorba Linda	88,680	88,680	83,233
County of Orange/OCFCD	132,584	153,707	155,293
Total tons of solid waste collected	3,640,752	3,626,987	3,959,590

NA = Not Available

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.7: Drainage Facility Maintenance

PERMITTEE	Total Length of Channel/Pipe Cleaned (in Miles)				Number of Catchbasins Within Jurisdiction				Number of Catchbasins Cleaned Within Jurisdiction				Percentage of Catchbasins Cleaned				Total Volume From Facilities (Tons)			
	2002-03	2003-04	2004-05		2002-03	2003-04	2004-05		2002-03	2003-04	2004-05		2002-03	2003-04	2004-05		2002-03	2003-04	2004-05	
	0.23	0.24	0.24	0.24	625	625	625	625	625	625	625	625	100%	100%	100%	100%	60.0	111.0	82	
Aliso Viejo	37.06	36.00	36	36	3,500	3,500	3,500	3,500	3,500	3,500	3,500	100%	100%	100%	100%	1500.0	1500.0	1500		
Anaheim	NA	NA	2.93	2.93	1,158	965	965	965	965	965	965	100%	100%	100%	100%	50.5	50.0	50		
Brea	0.01	2.25	2.25	2.25	20	857	758	758	28	28	949	100%	3%	125%	1.0	2.4	10.3			
Buena Park	0.60	0.60	0.6	0.6	1,165	1,165	1,165	1,165	1,165	1,165	1,165	100%	100%	100%	25.0	25.0	20			
Costa Mesa	0.39	0.37	0.37	0.37	567	567	569	569	430	48	194	75%	8%	34%	2.0	0.5	1.5			
Dana Point	0.03	0.00	0.29	0.29	430	555	526	526	386	446	459	90%	80%	87%	13.6	508.0	26.04			
Fountain Valley	1.50	0.40	0.44	0.44	1,965	750	750	750	1,965	750	750	100%	100%	100%	422.0	217.0	281			
Fullerton	7.82	5.90	6.5	6.5	1,255	1,322	3,424	3,424	3,268	2,216	3,424	50%	100%	100%	1697.0	1629.0	2.1			
Garden Grove	0.01	0.01	0.01	0.01	907	907	936	936	907	907	936	100%	100%	100%	108.5	108.5	94			
Huntington Beach	8.00	8.40	8.4	8.4	1,708	1,708	1,715	1,715	1,706	1,706	1,715	100%	100%	100%	834.4	894.9	687			
Irvine	0.56	0.60	0.3	0.3	3,300	3,300	3,840	3,840	1,574	1,584	1,430	100%	48%	37%	14174.8	91.5	74.4			
La Habra	NA	2.50	2.5	2.5	NA	545	545	545	NA	542	545	NA	99%	100%	NA	10.0	18			
La Palma	5.00	4.70	5.2	5.2	201	201	201	201	201	201	201	100%	100%	100%	15.5	15.7	16			
Laguna Beach	0.20	0.20	0.10	0.10	633	910	910	910	633	633	910	75%	70%	100%	227.9	NA	192			
Laguna Hills	0.73	0.20	NA	NA	521	515	487	487	481	304	472	92%	60%	97%	13.6	68.0	5.7			
Laguna Niguel	0.02	NA	0.6	0.6	NA	1,209	1,350	1,350	1,035	1,197	1,300	80%	89%	96%	1133.0	388.0	124			
Laguna Woods	0.02	NA	NA	NA	17	17	17	17	18	18	17	100%	100%	100%	0.2	NA	0.5			
Lake Forest	0.00	0.00	0.03	0.03	438	483	1,082	1,082	200	331	1,042	47%	76%	96%	15.5	20.8	3.9			
Los Alamitos	NA	NA	NA	NA	114	114	114	114	114	114	114	100%	100%	100%	DNR	15.5	15.5			
Mission Viejo	0.02	0.02	3.63	3.63	1,800	1,830	1,830	1,830	360	651	781	10%	100%	43%	18.2	27.7	4.88			
Newport Beach	1.45	3.33	3.33	3.33	2,853	3,057	3,087	3,087	2,551	2,793	3,087	89%	89%	100%	963.0	834.0	860			
Orange	3.33	4.00	1.33	1.33	1,825	1,625	1,625	1,625	76	147	91	5%	9%	6%	1.9	2.0	12			
Placentia	0.10	0.00	0	0	240	447	447	447	200	175	175	83%	39%	39%	7.8	0.5	0.5			
Rancho Santa Margarita	NA	0.00	41.6	41.6	669	669	669	669	669	669	669	100%	100%	100%	NA	7.0	181.35			
San Clemente	10.25	1.50	3.42	3.42	1,236	1,236	1,239	1,239	1,104	620	1,606	95%	50%	130%	NA	3.0	3			
San Juan Capistrano	0.18	0.09	0.25	0.25	1,200	1,200	1,200	1,200	500	99	150	41%	9%	13%	37.0	28.0	45			
Santa Ana	NA	2.10	10.1	10.1	1,500	1,270	1,865	1,865	129	1,175	1,586	9%	92%	95%	3058.0	3058.0	1042			
Seal Beach	0.02	0.02	0.02	0.02	195	195	195	195	195	195	195	100%	100%	100%	4.5	16.8	32			
Stanton	DNR	1.30	1.42	1.42	DNR	NA	145	145	DNR	142	145	DNR	99	100%	100%	DNR	19.3	19.3		
Tustin	NA	0.20	0.2	0.2	942	942	962	962	1,258	1,034	962	100%	>100%	100%	64.0	114.0	76			
Villa Park	1.00	0.80	0.9	0.9	150	150	80	80	150	150	25	100%	100%	31%	NA	NA	70			
Westminster	0.83	0.83	0.83	0.83	622	622	622	622	622	622	622	100%	100%	100%	6.0	5.0	5			
Yorba Linda	1.06	1.06	0.8	0.8	1,550	1,575	1,728	1,728	1,500	1,575	1,728	97%	98%	100%	56.3	70.5	21			
County of Orange/OCFCD	46.00	29.00	78	78	2,325	2,353	2,353	2,353	2,133	1,485	1,835	91%	63%	78%	52.0	36.0	36			
Totals	126	107	213	213	35,429	37,384	41,326	41,326	30,833	28,752	34,370	83%	80%	86%	24,663	9,378	5,612			

NA = Not Available
DNR = Did Not Report

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.8: 2004-05 Integrated Waste Management Household Hazardous Waste Program Collection Totals

Category	Type Of Waste	Collection Center Waste Volumes Collected (pounds)																	
		Anaheim			Huntington Beach			Irvine			San Juan Capistrano								
		2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05						
1. Flammable & Poison	Flammable Solid/Liquid	202,451	218,456	247,962	236,740	282,013	279,665	99,074	151,510	170,366	70,550	99,450	99,050						
	Bulked Flammable Liquids	0	800	0	0	1,600	0	0	800	0	0	0	0						
	Oil-Base Paint	346,307	395,469	512,372	327,172	347,123	387,257	213,166	247,271	249,331	162,400	245,700	221,260						
	Poison (Excl aerosols)	38,301	50,713	64,974	47,496	53,486	58,972	27,172	39,395	41,169	16,650	16,650	27,720						
	Reactive & Explosive	0	200	360	0	318	171	0	160	160	0	0	0						
	Subtotal	587,059	665,638	825,668	611,408	684,540	726,065	339,412	439,136	461,026	249,600	361,800	348,030						
2. Acid	Inorganic Acid	5,400	4,649	8,443	6,564	7,992	6,014	2,740	4,143	4,266	2,520	2,520	2,520						
	Organic Acid	5,191	5,597	5,514	7,560	7,173	7,790	3,908	6,372	7,281	2,310	2,970	2,970						
	Subtotal	10,591	10,246	13,957	14,124	15,165	13,804	6,648	10,515	11,547	4,830	5,490	5,490						
3. Base	Inorganic Base	1,260	1,889	2,380	3,136	2,236	4,111	796	1,819	2,120	0	1,260	720						
	Organic Base	7,555	10,117	4,070	10,168	12,282	13,802	3,810	6,896	7,462	2,640	4,950	2,310						
	Subtotal	8,815	12,006	6,450	13,304	14,578	17,913	4,606	8,715	9,582	2,640	6,210	3,030						
4. Oxidizer	Neutral Oxidizer	1,055	2,243	1,977	2,076	2,733	2,207	1,276	1,665	3,164	400	1,000	800						
	Organic Peroxides	20	0	10	45	0	0	10	0	20	20	0	10						
	Oxidizing Acid	0	94	136	1,240	504	1,186	10	29	30	0	0	0						
	Oxidizing Base	0	171	115	0	414	1,167	136	421	166	0	0	0						
	Subtotal	1,075	2,508	2,238	3,361	3,651	4,560	1,432	2,115	3,380	420	1,000	810						
5. PCBs (Containing)	PCB Containing Paint	0	0	0	0	0	0	0	0	0	0	0	0						
	Other PCB Waste	0	1,300	1,000	200	200	4,000	100	200	500	0	0	500						
	Subtotal	0	1,300	1,000	200	200	4,000	100	200	500	0	0	500						
6. Aerosol	Corrosive Aerosols	400	1,232	3,066	3,584	3,145	2,955	236	683	805	200	0	400						
	Flammable Aerosols	22,760	28,106	35,258	35,741	39,875	48,539	16,101	24,101	26,364	10,450	11,525	14,250						
	Poison Aerosols	1,810	4,033	5,592	7,196	5,903	7,685	2,128	4,338	5,161	800	1,200	100						
	Subtotal	24,970	33,371	43,916	46,521	48,923	59,179	18,465	29,132	32,330	11,450	12,725	14,750						

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.8: 2004-05 Integrated Waste Management Household Hazardous Waste Program Collection Totals (continued)

Category	Type Of Waste	Collection Center Waste Volumes Collected (pounds)											
		Araheim			Huntington Beach			Irvine			San Juan Capistrano		
		2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
7. Reclaimable	Antifreeze	31,461	35,675	19,453	31,620	25,995	21,098	13,667	16,851	6,525	7,360	3,017	0
	Car Batteries	130,500	136,450	147,595	71,280	98,440	175,280	41,765	72,200	73,465	24,255	39,720	42605
	Fluorescent Bulbs	3,000	3,800	3,400	4,400	4,600	4,600	1,200	3,200	3,400	600	1,200	1800
	Latex Paint	268,300	349,243	379,840	315,558	358,846	410,495	159,584	269,382	294,413	135,090	97,470	182400
	Mtdr Oil/Oil Products	157,833	169,939	179,892	131,309	123,238	123,193	72,121	88,387	93,325	43,275	49,032	39975
	Oil Filters	5,000	4,600	5,800	4,600	4,000	4,000	2,200	2,600	2,600	1,000	1,400	1000
	Mercury (Metallic)	80	120	100	78	100	200	54	80	250	0	40	150
	Subtotal	596,174	696,827	736,080	558,845	615,219	738,866	290,591	452,700	473,978	211,560	191,909	267,930
8. Other	Medical Waste	0	0	0	0	0	0	0	0	0	0	0	-
	Household Batteries	2,370	3,750	6,871	2,556	3,108	6,571	2,700	3,630	8,858	600	3,035	4,631
	Other	316,062	567,729	22,254	178,783	387,154	27,682	80,394	273,493	12,785	36,858	171,835	7,650
	Subtotal	318,422	571,479	29,125	181,339	390,262	34,253	83,094	277,123	21,643	37,458	174,870	12,281
9. Propane	Propane	NR	NR	28,030	NR	NR	36,613	NR	NR	94,039	NR	NR	5164
	CRT	NR	NR	427,976	NR	NR	323,695	NR	NR	273,539	NR	NR	190971
	Subtotal	0	0	456,036	0	0	360,308	0	0	367,578	0	0	196,135
	Collection Center Totals	1,547,106	1,995,375	2,114,470	1,429,102	1,772,538	1,958,948	744,348	1,219,636	1,381,564	517,978	754,004	848,956
	Grand Total Collected for FY 2002-03 =	4,238,534											
	Grand Total Collected for FY 2003-04 =	5,741,553											
	Grand Total Collected for FY 2004-05 =	6,303,938											

NR = Not Reported

SECTION 5.0, MUNICIPAL ACTIVITIES

Table 5.9: Used Oil Grant Participation

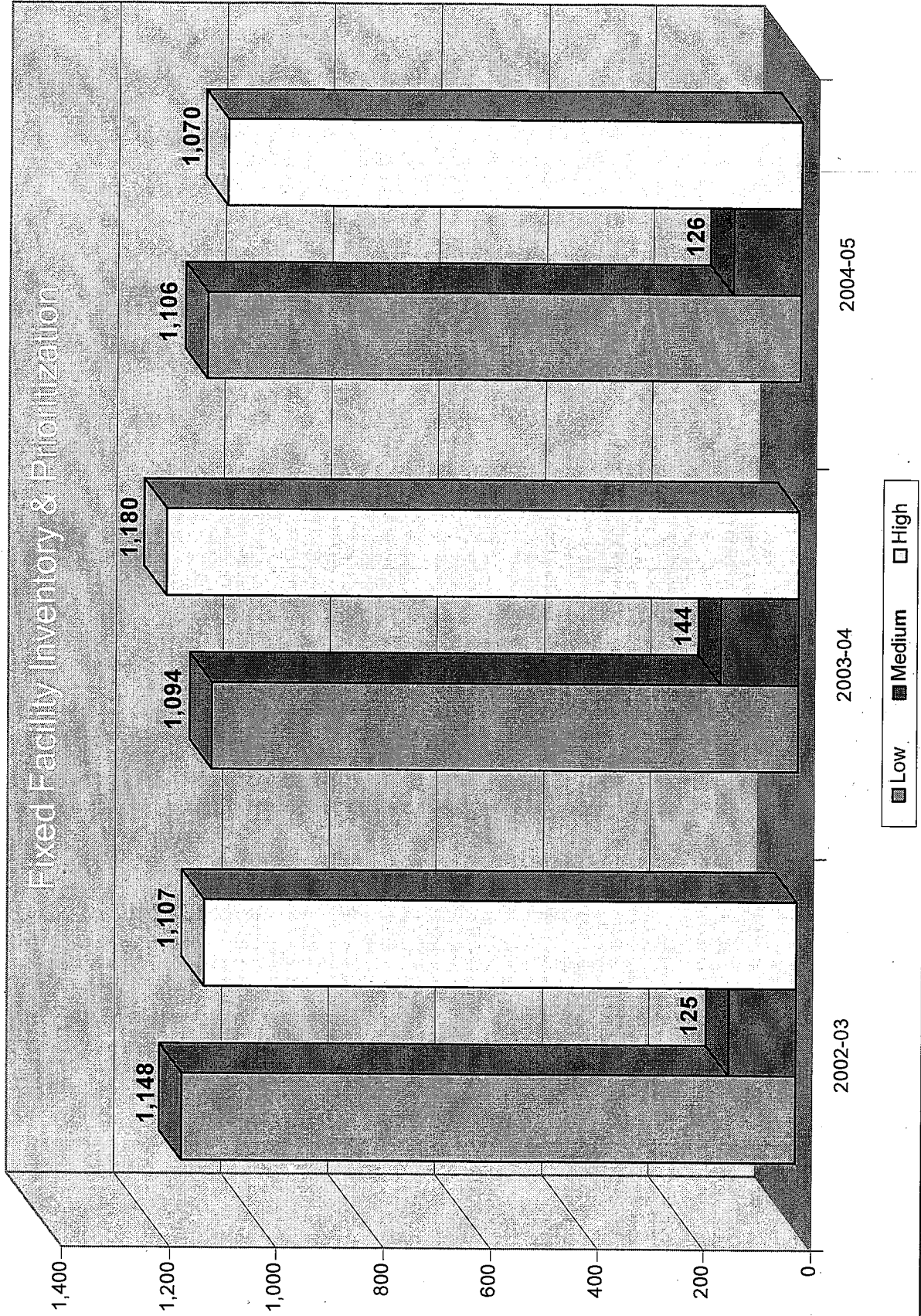
PERMITTEE	Has or Participates in a Used Oil Grant	Amount Collected As a Result of the Used Oil Grant FY 2002-03		Amount Collected As a Result of the Used Oil Grant FY 2003-04		Amount Collected As a Result of the Used Oil Grant FY 2004-05	
		Motor Oil/Oil Products (Gallons)	Oil Filters (Units)	Motor Oil/Oil Products (Gallons)	Oil Filters (Units)	Motor Oil/Oil Products (Gallons)	Oil Filters (Units)
Aliso Viejo	X			NA	NA	63,647	27,109
Anaheim	No	135	74	0	0	NA	NA
Brea	X	900	165	720	144	31,680	3,867
Buena Park	X	NA	NA	9,495	NA	12,289	220
Costa Mesa	X	7,869	90	8,886	101	473	59
Cypress	X	NA	NA	43,000	0	75,000	NA
Dana Point	X	624	NA	28,930	NA	5,610	NA
Fountain Valley	X	1,834	27	74	15	147	28
Fullerton	X	15,840	35	50,856	132	79,942	NA
Garden Grove	X	31,837	1,154	19,471	NA	3,170	809
Huntington Beach	X	1,499	368	702	203	887	239
Irvine	X	71,784	NA	71,784	NA	59,645	NA
La Habra	X	NA	NA	7,630	NA	NA	NA
La Palma	No						
Laguna Beach	X	41	0	1,014	0	153	NA
Laguna Hills	X	DNR	DNR	NA	NA	44,800	11,000
Laguna Niguel	No	DNR	DNR	NA	NA	NA	NA
Laguna Woods	X	14,400	3,000	84	NA	25	6
Lake Forest	X	9,297	NA	NA	NA	63,614	NA
Los Alamitos	No						
Mission Viejo	X	12,145	147	14,280	NA	14,372	55
Newport Beach	X	NA	NA	19,471	NA		
Orange	X	2,966	NA	418	NA	2,158	554
Placentia	X	707	209	91	18	148	160
R S Margarita	X	NA	NA	NA	NA	33,544	133
San Clemente	X	19,455	2,500	19,455	2,500		
S J Capistrano	X	5,770	667	1,620	1,296	98,000	13,500
Santa Ana	X	5,804	3,815	12,037	3,698	12,583	4,004
Seal Beach	NA	NA	NA	NA	NA	NA	NA
Stanton	No	NA	NA	NA	NA	NA	NA
Tustin	X	NA	NA	NA	NA	NA	NA
Villa Park	No						
Westminster	X	64,100	NA	7,620	3,000	34,442	1,000
Yorba Linda	NA	NA	NA	NA	NA	NA	NA
County of Orange/OCFCD*	X	259,000	1,333	61,330	49,064	653,848	57,817
		526,007	13,584	378,967	60,171	1,290,177	93,451

NA = Not Available

* The number of gallons of used oil collected dropped in 2003-04 and then dramatically increased for 2004-05 due to CIWMB regulations in 2003-04 when the CIWMB stated that only the used oil turned in by do-it-yourselfers could be counted. However, for the 2004-05 reporting year, the CIWMB reversed their decision and allowed all used oil to be counted, including oil from HHHCCs and certified collectors (Jiffy Lube, etc.).

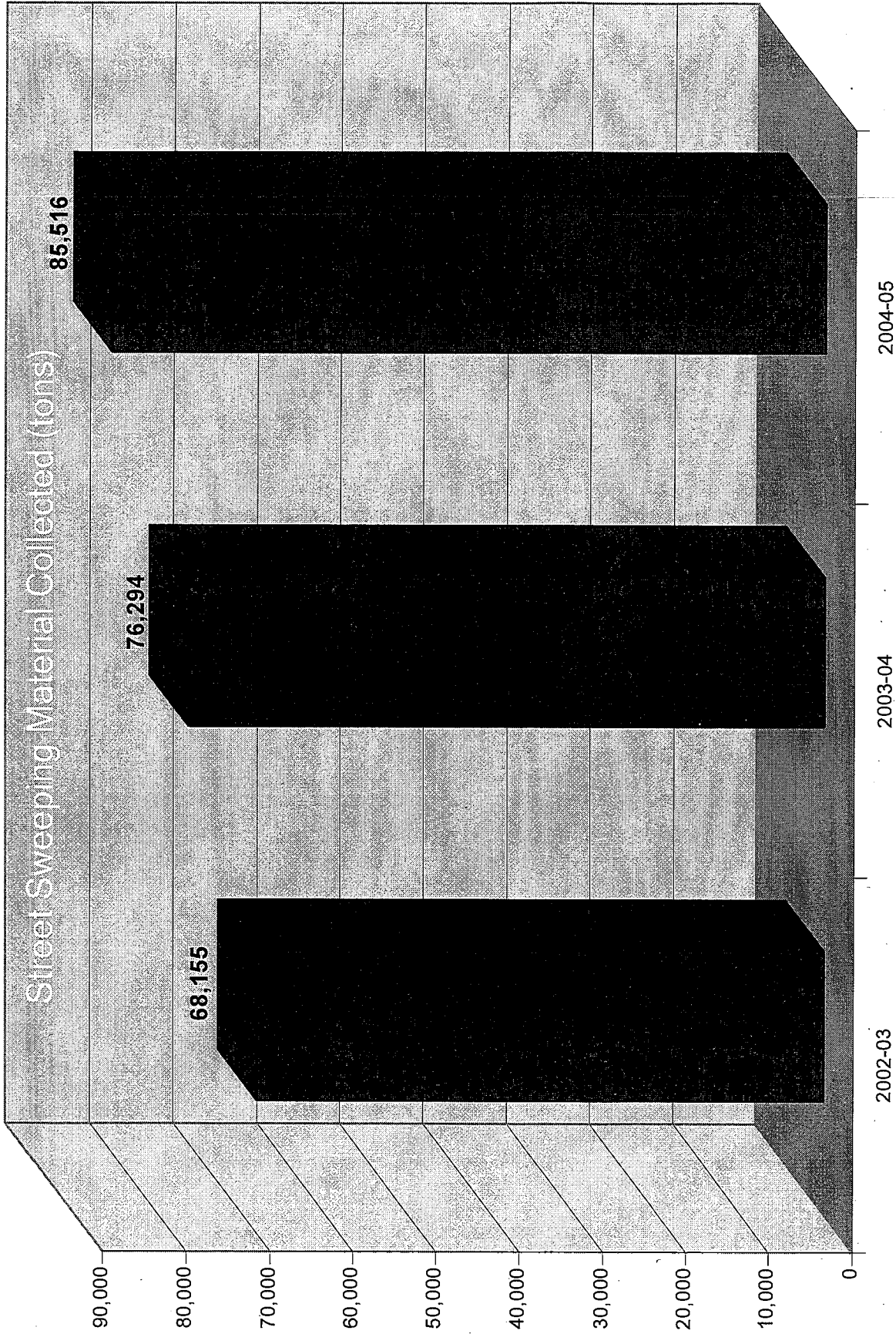
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.1: Countywide Permittees' Fixed Facility Inventory and Prioritization



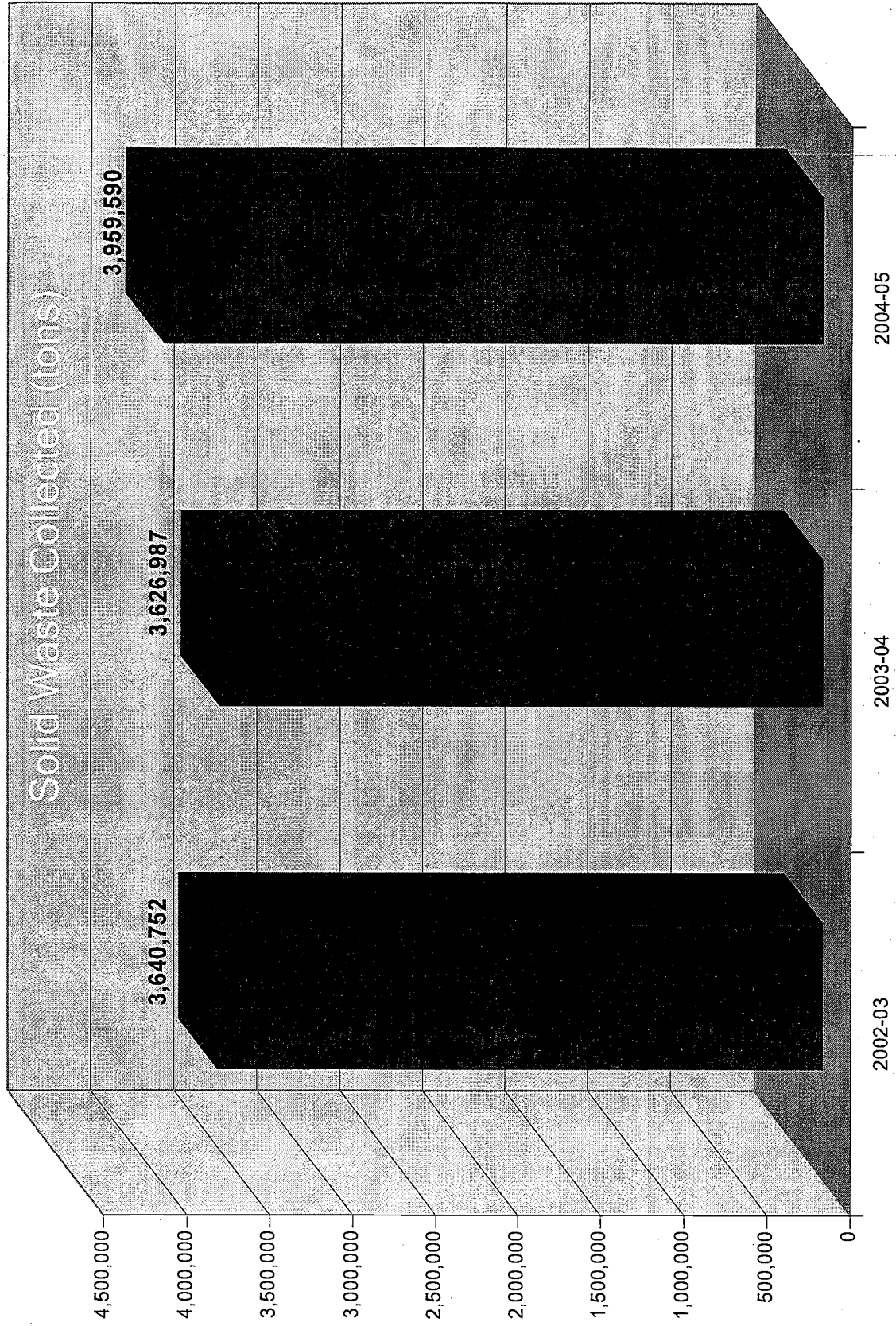
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.2: Volume of Street Sweeping Material Collected



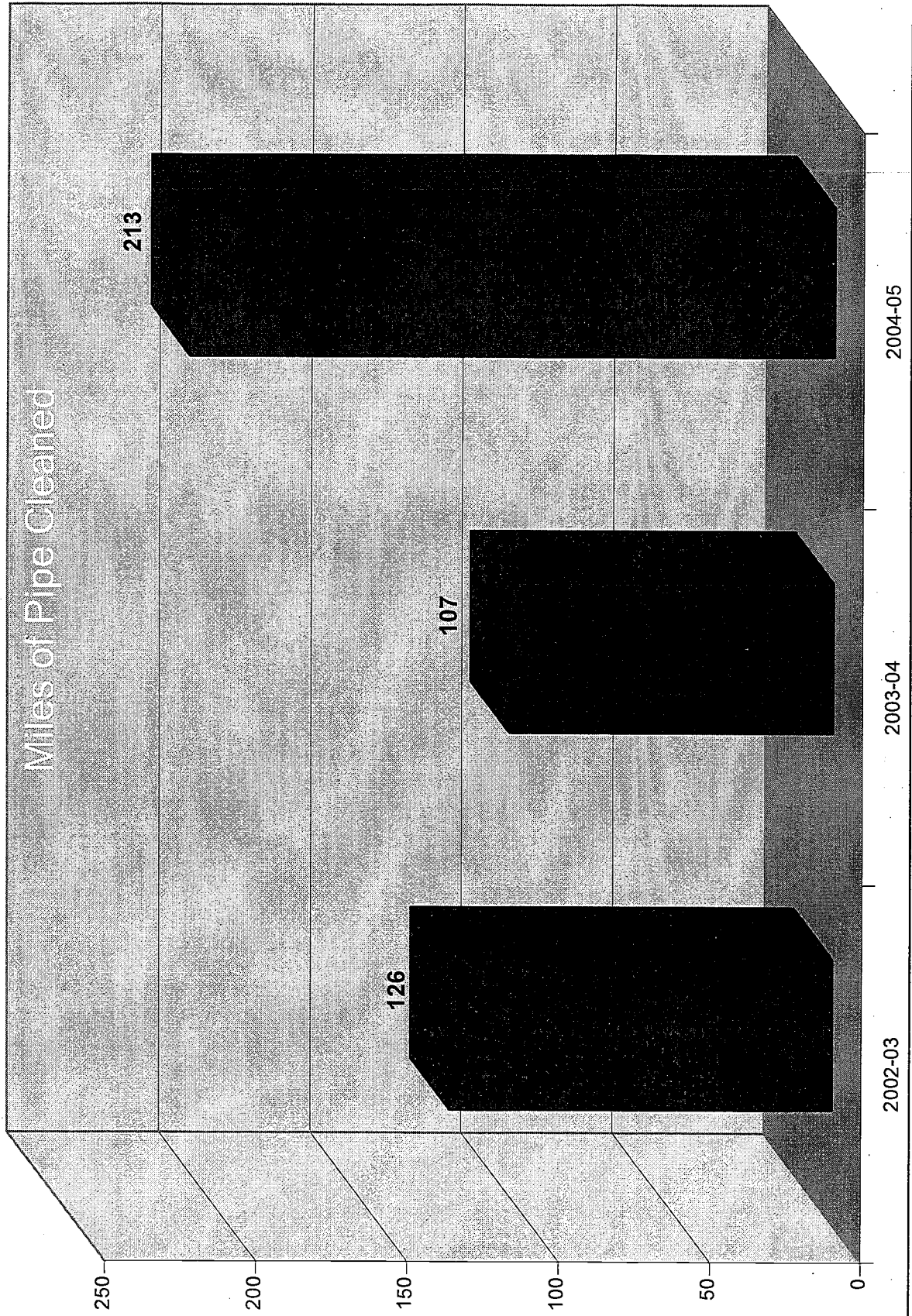
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.3: Solid Waste Collection (tons)



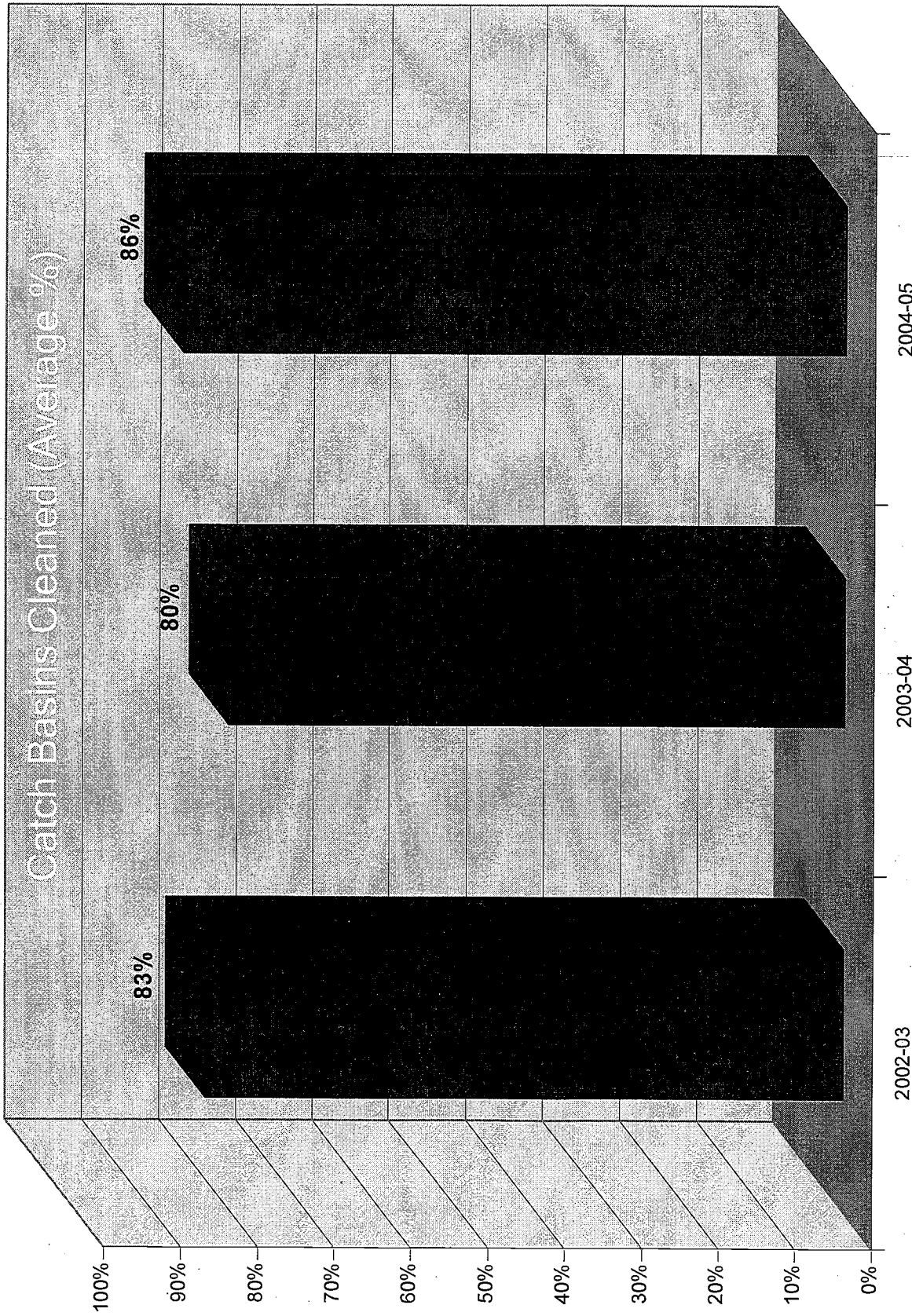
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.4: Drainage Facility Maintenance - Miles of Pipe Cleaned



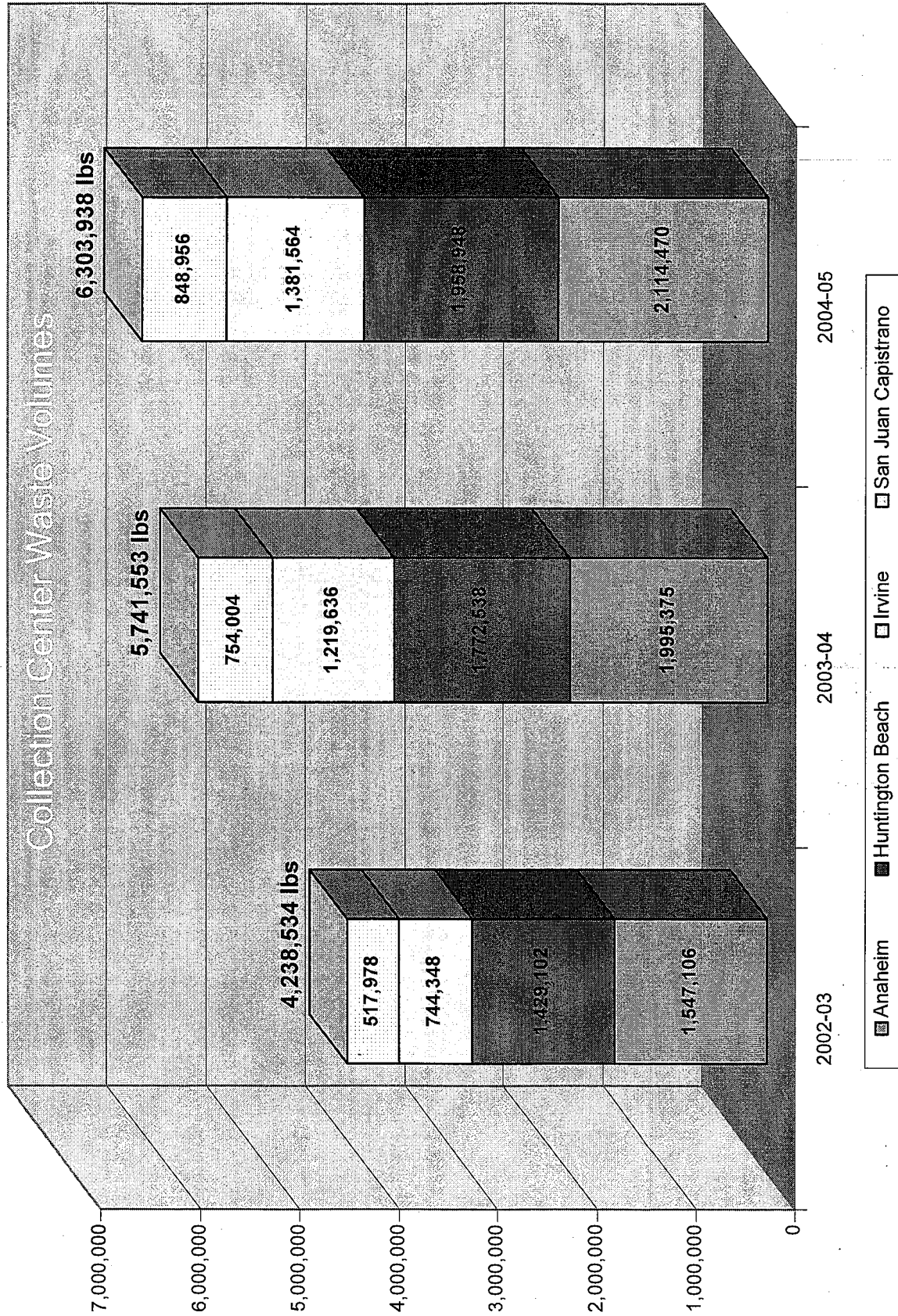
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.5: Drainage Facility Maintenance - Percentage of Catch Basins Cleaned



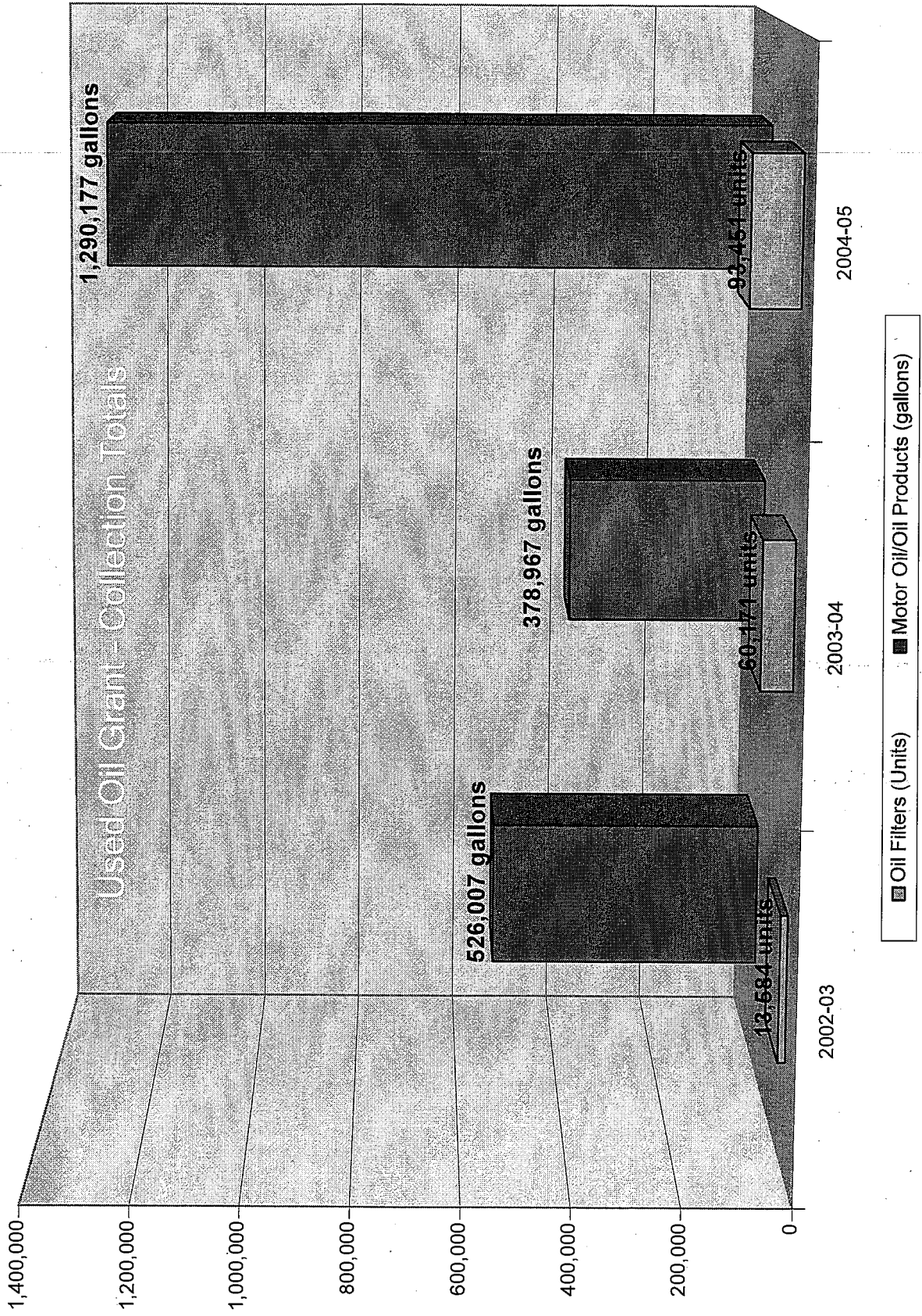
SECTION 5.0, MUNICIPAL ACTIVITIES

Figure 5.6: 2004-05 Integrated Waste Management Household Hazardous Waste Program Collection Totals



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Figure 5.7: Used Oil Grant Participation



SECTION 6.0, PUBLIC EDUCATION

6.0 PUBLIC EDUCATION

6.1 Introduction

In 2002, the Permittees created a public and business outreach strategy - "Orange County Stormwater Public Education Program Recommendations." This strategy, which was updated in 2004, established a long-term, cost-effective approach to educate the public and targeted business groups about the effects of stormwater pollution and encourages their participation in the protection of surface waters. Key aspects of the strategy included conducting a survey to define the level of general knowledge held by people in Orange County, utilizing the survey results to develop campaign goals, determining the key messages, defining specific community outreach activities and approaches, preparing a master timeline, and creating a "brand" name for the Orange County Stormwater Program ("Project Pollution Prevention").

6.2 Accomplishments

The primary elements of the Third Term Permits public education program were a series of "Plans" that guided the program implementation, specifically:

- A "Materials Plan" that prioritized the educational materials necessary for revision/development and defined the common look and theme;
- A "Media Plan" that identified advertisement purchases in major publications, on Orange County Transit Authority buses and shelters, in movie theaters, on radio, and on cable television;
- A "Non-media Plan" which included the develop of a tool box for local outreach and building relationships with businesses, trade associations, chambers of commerce, utilities, and organizations that provided key opportunities for outreach;
- A "School Education Plan" to reach K-12 students in Orange County with pollution prevention messages; and
- An outreach plan for the approximate 10,000 food service facilities in Orange County.

Additional elements of the program include:

- An initial and follow-up public opinion/education survey (completed in 2003 and late 2005 respectively);
- Assistance with governmental and regulatory agency relations;
- Translation of all materials into Spanish and the creation of a Spanish webpage;
- Translation of key materials into Vietnamese;
- A "tool box" of materials for Permittee program coordinators to conduct local outreach efforts, based upon a quarterly "Quad Approach" including press releases, newsletter articles, fact sheets and billing inserts; and
- An employee-training program ("Stormwater 101") to educate all municipal employees about general stormwater principals.

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6.2.1 Countywide Public and Business Education Materials Plan

A Materials Plan was developed that prioritizes the outreach materials necessary for revision/development and defined a common look and theme. Pursuant to this plan, the following materials were produced:

- Forty-three brochures; 22 in English, 18 in Spanish and four in Vietnamese.
- Sixteen print advertisements; eight in English, seven in Spanish and one in Vietnamese.
- Ten radio public service announcements; five in English and five in Spanish.
- Four movie/cable PSAs; three in English and one in Spanish.
- Three bus advertisements.
- Six quad outreach kits including a newsletter, press release, billing insert and fact sheet.
- Outreach kit for food service establishments including a BMP poster, four stickers, a PowerPoint presentation, fact sheet and CD-ROM.
- Stormwater 101 training kit including a pre/post training evaluation, fact sheet, PowerPoint presentation and 7-½ minute video.
- A municipal vehicle magnet.
- A door hanger notice for residential pollution problem correction.

6.2.2 Media Outreach Plan

A strategic media relations campaign was developed and implemented that included advertisements in major publications, on Orange County Transit Authority buses and shelters, in movie theaters, on radio, on cable television and online. The Permittees collectively purchased the following media during 2002-06:

Newspaper advertisements generated 46.5 million impressions

- Seven full-color ads in the *Sunday Orange County Register*
- Three full-color ads in the *Sunday Los Angeles Times* (Orange County Edition)
- Twenty-two full-page ads in 17 of the *Register's* community papers
- Fourteen full-page ads in four of the *Register's* community papers
- Eleven ¾-page ads in the *Los Angeles Times'* three Orange County community papers: the *Daily Pilot*, *Huntington Beach Independent* and *Laguna Beach Coastline Pilot*
- Nine full-page ads in the *News-Enterprise*
- Fourteen full-page ads in *OC Metro*
- Eleven full-page ads in *OC Weekly*
- Seventeen full-page ads in *Miniondas* (Spanish language)
- Fifteen full-page ads in *Excelsior* (Spanish language)

Radio advertising generated 27.6 million impressions

- Twenty 60-second spots on KLAC AM 570. The spots generated more than 120,000 impressions.
- One hundred and twenty- 60-second spots ran on JACK FM 93.1 generating 25 million impressions.

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- One hundred and sixty 60-second spots ran on Sonido (Spanish language radio station) generating 2.5 million impressions.

OCTA bus advertising generated 71.5 million impressions

- Fifty-seven bus sides
- Fifty bus backs
- Fifty outdoor bus shelters

Movie theater advertising generated 11 million impressions

- The 30-second public service announcement ran on screen and in lobby kiosks for twenty weeks at 22 Edwards/Regal Cinemas, San Clemente's Krikorian Theater, twelve weeks at the Long Beach Town Center Theater and twelve weeks at AMC theaters.
- The sad fish poster was displayed at all 24 Orange County theaters.

Cable television advertising generated 1.4 million impressions on four cable stations (Adelphia, AT&T/Comcast, Time Warner and Cox Communications)

On-line banner advertising generated 2.35 million impressions

- Banner display on www.931jackfm.com for three months.
- Banner display on www.ocregister.com for two months.

Headline Indicator - Number of Media Impressions: The public education program generated over 160,000,000 media impressions over the period 2002-06.

ROWD Commitment

- Continue to "fine tune" the multi-media approach.
- Re-evaluate audiences & key messages for targeted behaviors.
- Pursue opportunities for regional collaboration.

6.2.3 Non-Media Outreach Plan

A Non-Media Outreach Plan was developed and implemented to complement the paid advertising media campaign. The plan utilized existing resources and partnerships to produce free or low-cost exposure for the program.

Outreach to Permittees

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The plan included the development of a "tool box" of materials to enable the Permittees to conduct local outreach both directly and indirectly through businesses, trade associations, chambers of commerce, utilities, restaurants and other organizations.

Specifically, the "tool box" included:

- Outreach Materials - Artwork was created for use on outdoor locations such as bus shelters, streetlight banners, mouse pads and beach towels.
- The Quad - A series of newsletters, press releases, fact sheets and billing inserts were created that focused on seasonal stormwater themes. Six seasonal quads were created.
 - Spring Into Cleaning - Household Hazardous Waste
 - What's Summer Without The Beach
 - When It Rains It Pours Pollutants Into Our Storm drains
 - A Pollution Fix for 2006
 - Green Thumb Blue Ocean
 - Keeping Your Car and the Environment Sparkling Clean
- An Events Listing - Lists of upcoming utility, restaurant, city and organization sponsored events were developed where stormwater information could be provided to event participants.
- Employee Training Materials - Stormwater training materials were developed to educate all municipal employees about general stormwater pollution prevention principles.

Outreach to Businesses

The plan's proposed implementation of programs is based on relationships and partnerships that had been developed with groups who may have been receptive to partnering with the program..

- A list of key Orange County businesses that the Stormwater Program could potentially foster relationships with was developed. The list included top businesses and major Orange County employers. These businesses were contacted and the following is a list of the business partnerships developed:
- Point of Purchase - Partnerships with stores that sell auto supplies, hardware, pet supplies and gardening supplies were developed. The program has fostered relationships with:
 - PetsMart Inc.
 - Home Depot, Inc.,
 - Orchard Supply Hardware (OSH)
 - Wal-Mart,

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- The Pet Pantry
- Huntington Garden Center
- Flowerdale
- De Nault's Hardware

- A list of major Orange County events such as the Orange County Auto Show and Southern California Home & Garden Show was created. Event coordinators were contacted with a letter introducing the program and asking for the opportunity to participate and/or distribute Orange County Stormwater Program materials.

Outreach to Utilities

Major non-city utilities providing water, electricity, cable and refuse services were contacted and provided sample newsletters for use in their publications. Several utilities printed stormwater education materials in their newsletters and billing inserts and posted information on their websites including:

- Rainbow Disposal
- Waste Management
- Southern California Edison
- Sempra Energy/The Gas Company
- Orange County Water District
- Orange County Fire Authority

The four major refuse companies in Orange County agreed to place a 12" x 24" Stormwater magnet on their trucks. More than 500 refuse trucks displayed the magnet during the 2002-06 reporting period.

Outreach to Organizations

A list of key Orange County organizations that the Stormwater Program could foster relationships with was developed. The list included organizations such as chambers of commerce, rotary clubs, and environmental groups.

- Chambers of Commerce - Several chambers provided Stormwater information to their members including the Brea Chamber of Commerce, Fountain Valley Chamber of Commerce, the Black Chamber of Commerce and the South Orange County Chambers of Commerce.
- Welcome Express - Welcome Express provides welcome packets to new homeowners in various communities throughout Orange County. Welcome Express provides the Household Tips brochure within their new homeowner's packet.

Media Relations Campaign

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The media relations campaign centered on fostering relationships with reporters. Local newspapers are considered one of the most credible sources of information for Orange County residents and reach a large audience. Therefore, media relations were an invaluable component of the public education campaign.

The media relations campaign utilized the seasonal stormwater press releases created as part of "the Quad" to contact the media on a quarterly basis. The program also updated its media distribution lists quarterly.

Indicator – Number of Non-Media Impressions: The public education program generated 25 million non- media impressions during 2002-06.

Outreach to Restaurants

A specific outreach plan for the approximate 10,000 food service facilities in Orange County was developed and implemented. The outreach plan included the following efforts:

- The inspection and distribution of educational materials to the approximately 10,000 existing food facilities (the inventory is updated annually) countywide. Over 36,000 inspections for NPDES stormwater related issues were conducted.
- A focused public education outreach component was developed and implemented. This effort included:
 - A mass mailing to all corporate and food service facilities within Orange County. Over 9,000 letters were mailed.
 - Distribution of focused educational brochures, posters, stickers and CD-ROMs were distributed during inspections.
 - Presentation was given to the Food Sanitation Advisory Council.

Indicator – Number of Food Facility Outreach Impressions: The public education program generated over 45,000 food facility outreach impressions during the 2002-06.

ROWD Commitment

- Continue to foster new relationships and partnerships.

6.2.4 School Education Outreach Program

During the 2002-03, reporting period extensive meetings took place with representatives from

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various educational programs and agencies throughout Orange County. A school education outreach plan was developed and implemented that included the following partnerships:

Orange County Department of Education (OCDE)

Inside the Outdoors is an environmental education program administered by the OCDE. There are three types of programs within *Inside the Outdoors* which are the:

- Outdoor Science School - This program includes information on sources of water for southern California, pollution prevention, and watershed information. 14,000 students participated in this program.
- School Program - A traveling scientist visits school sites providing the "Drip Drop" program - a 60-minute presentation about water quality. 3,000 students participated in this program.
- Field Program - Fifth grade students move into the real world of science and social science. During the "Where Do I Flow" program students learn about water pollution and prevention. 12,803 students participated in this program.

Approximately 30,000 students participated in the *Inside the Outdoors* Science Programs.

Municipal Water District of Orange County (MWDOC)/Discovery Science Center (DSC)

The partnership with MWDOC/DSC is focused on the Elementary Water Science Education Program, a water education course for teachers, and a public program for general visitors.

- Elementary Water Science Education Program - This program presents grade-specific science lessons, which incorporate water sources, water conservation, and water/trash pollution themes complementary to the science content standards.

5th Grade Student Assemblies: This element of the program presents lessons to elementary school students in an assembly format. 17,200 fifth grade students and 500 fifth grade teachers participated in this program.

5th Grade Students Attending the DSC Field Trip Program - For 5th grade students attending the DSC, field trip instructors screen the Project Pollution Prevention video entitled "Go With the Flow" and distribute the Project Pollution Prevention water education-based booklet. 25,827 fifth grade students and 2,000 fifth grade teachers participated in this program.

- Water Education Course for Middle and High School Teachers - The Water Education Course provides fifth through twelfth grade teachers Professional Development classes complete with curriculum and a kit of scientific equipment to conduct water-focused and pollution awareness activities in their classrooms. The Water Education Course was provided to 24 teachers reaching approximately 792

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students.

- Public Program for General Visitors to the DSC - A demonstration and learning station for the general public visitors and students on field trips to the DSC was developed to further communicate the importance of water, water conservation, urban pollutants, and stormwater/urban runoff pollution. An estimated 76,000 visitors saw the station annually.

Project WET (Water Education for Teachers)

The Project WET (<http://www.projectwet.org/index.html>) is a water science and education program for teachers that provide classroom ready teaching aids including the Project WET Curriculum and Activity Guide. The guide is a collection of hands-on, innovative, interdisciplinary activities. Project WET developed curriculum specifically for the stormwater program.

Nearly two hundred teachers have participated in Stormwater Program sponsored workshops reaching 7,000 students per year.

California Regional Environmental Educational Community (CREEC) Network

The California Regional Environmental Education Community (CREEC) Network is an educational project whose mission is "to develop a communication network which provides educators with access to "high quality" environmental education resources to enhance the environmental literacy of California Students." It is an educational project supported by the California Department of Education, Environmental Education Program, in collaboration with state, regional and local partners. The CREEC Network provides information on all Orange County environmental school education outreach programs. To further publicize this information, links between the Permittees' website and CREEC were established.

Indicator - Number of School Outreach Impressions: The public education program generated 188,846 school outreach impressions during the 2002-06.

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6.2.5 Other Countywide Initiatives

The Principal Permittee conducted a number of countywide public education initiatives on behalf of the Permittees. These initiatives included:

- Provision of brochures, magnets, bookmarks, manual, and posters to the Permittees, general public, businesses, schools, and other agencies. During 2002-06 over 450,000 educational materials were distributed.
- Management of the countywide 24-hr bilingual water pollution reporting hotline number, (714) 567-6363. During the 2002-06 the hotline received 927 water pollution calls. Water pollution complaints are also received through the County website.
- Advertisement of the 24-hour water pollution hotline number and web address, www.ocwatersheds.com, in all SBC Regional Phone Directories.
- Management of the County website, www.ocwatersheds.com. During 2002-06 the website received over 10,000,000 hits.

Indicator - Number of Other Countywide Initiative Impressions: The public education program generated 10,450,927 other impressions during the 2002-06.

Headline Indicator - Public Education Program Impressions: The public education program created over 195,684,773 impressions during the 2002-06 permit cycle. One of the goals of the public education program is to target 100% of the residents of Orange County. Orange County has a population of approximately 3 million people. Therefore, it can be deduced that every resident of Orange County received thousands of impressions during the reporting period. This achievement also far exceeds a Third Term Permit requirement to deliver a minimum of 10 million impressions per year within the Santa Ana Regional Board Area.

6.3 Assessment

In an effort to better understand the public's awareness regarding water quality issues, several surveys have been conducted. The surveys have incorporated a number of questions relating to pesticide, herbicide and fertilizer use, the sewer and storm drain system and the public's overall awareness of the County's public outreach campaign. Surveys conducted since the inception of the Orange County Stormwater Program include:

- 1994 Stormwater Pollution Prevention and Flood Awareness Survey
- 2000 County of Orange Fair Survey

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- 2000 Orange County Sanitation District Fair Survey
- LA Times In Education Survey
- 2001 Public Awareness Survey
- 2003 Public Awareness Survey
- 2005 Public Awareness Survey

6.3.1 Public Awareness Surveys

In May 2003, the Permittees conducted a large sample (1,500 respondents) public awareness survey to measure the current level of knowledge held by residents of Orange County. In November 2005, after 30 months of the public education campaign, a follow-up to the baseline survey was conducted. The purpose of the second survey was to assess the extent to which public opinion and knowledge about urban runoff issues have changed and whether Orange County residents have made any behavioral changes as a result of the public education campaign.

The findings indicate that the public information campaign on stormwater and urban runoff has made initial inroads towards increasing awareness. In the majority of questions, awareness of the program and or its elements increased one to three percentage points.

Effectiveness of Educating on the Environmental Issue

Consistent with findings from 2003, education, traffic congestion, safety and employment continue to rank higher than pollution as top issues of concern with Orange County residents. In the last 30 months, residents concern regarding pollution of the ocean, rivers, creeks and bays increased 1%. When asked specifically about ocean, bay and harbor pollution, concern remained consistent with the baseline data with 85% to 87% concerned. However, the intensity of concern regarding pollution of creeks and rivers increased 6% (from 39% very concerned in 2003 to 45% in 2005).

During the 30-month stormwater outreach campaign, information never focused on the actual quality of Orange County water or the severity of the issues. Most elements of the program focused on particular activities that would "protect our creeks, rivers, bays and ocean." The result of the survey is consistent with the amount of prominence placed on this subject. If a greater emphasis was placed on this subject in the campaign, the numbers could have been higher.

Effectiveness of Educating on the Storm Drain System

Knowledge about urban runoff and storm drains has increased. In fact, 90% of residents know that water flowing in the street enters a storm drain and goes directly to a waterway. This is up six percentage points from 2003. However, there still is a lack of understanding regarding the storm drain system. When asked if water in the storm drains is tested and filtered, 4% more answered the question correctly in 2005, however, it was still less than half (46%) of the respondents. Similarly, when asked if sewer water and storm drain water

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enter the same system, 3% more answered the question correctly, however, it was still less than half (44%) of the respondents.

During the education campaign, nearly all materials created mentioned that objects in the street flow through storm drains directly to the nearest waterway. However, only the brochures, fact sheets and newsletter articles went into depth regarding the difference between the sewer and storm drain system. The use of this information in all the materials shows in the increased level of awareness. Had the differences between the sewer system and storm drain system been illustrated in every piece, these numbers may have been higher.

Also, men tend to be very knowledgeable regarding the storm drain system while women were less knowledgeable according to the 2005 survey; therefore, materials targeted at women may be considered.

Effectiveness of Educating on Key Pollutants

The survey asked respondents if the following items contributed to polluting urban runoff: oil, toxic waste, Styrofoam cups, gardening products, cigarette butts, paint, dirty water/detergent, cleaning products, trash, pet waste, water from hoses, lawn clippings/dirt/leaves and pool water. In every case, respondents were very likely to say these items contributed to polluted runoff with nine of them increasing beyond the margin of error (oil, Styrofoam cups, cigarette butts, paint, cleaning products, trash, pet waste, lawn clippings/dirt/leaves and pool water).

The increased knowledge held regarding these 13 pollutants shows a strong upward trend and indicates that education materials are reaching the residents. For all but two pollutants (toxic waste and Styrofoam cups) a brochure has been created to educate the public. Also, seven of the pollutants (oil, gardening products, cigarette butts, dirty water/detergent, pet waste, hose water and lawn clippings/dirt/leaves) were covered in the print advertising campaign. The fact that public knowledge has increased regarding all 13 pollutants demonstrates that the education campaign is effective.

Effectiveness of Educating on Key Behaviors

Consistent with the first survey, roughly two thirds say that changing their personal behaviors would make a difference in cleaning up pollution (65%). This represents an increase of 2%. The survey revealed the following: 97% of people were either willing or did dispose of chemicals properly, 89% were willing to or did use fertilizers properly, 92% were either willing to or did keep yard clippings out of the street, 90% were willing to or currently adjust sprinklers to avoid overwatering; 79% were willing to or did pick up after their pet, 90% were willing to or currently use a broom to clean driveways, and 73% were willing to or eliminated washing cars at home.

When comparing seven actions that residents were already participating in, they were 4% more likely to dispose of chemicals properly and 3% more likely to pick up after a pet in 2005. However, less respondents were keeping yard clippings out of the street (-5%),

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adjusting sprinklers (-1%), using a broom instead of a hose (-5%), properly using fertilizer (-1%) and eliminating car washing (-9%). Although participation in some of the seven actions decreased, roughly half of Orange County residents report taking part in all seven of the activities – making a significant increase over the 30 months (+37%) of the campaign (Figure 6.1).

During the course of the education campaign, the materials focused on what can be done to prevent urban runoff. All seven activities mentioned in the survey were addressed in brochures, newsletter articles, fact sheets, press releases and billing inserts.

The survey results indicate that the education campaign has penetrated the residents of Orange County and caused significant awareness of the activities that can reduce urban runoff. In all cases (except home car washing) at least eight in ten residents were either participating, or willing to participate in, activities that limit runoff. Despite a successful start to the campaign, residents appear to be obstinate when it comes to one behavior – eliminating home car washing.

Effectiveness of the School Outreach Program

A significant portion of parents of children under 19, roughly 25%, report that their children learned about urban runoff issues in school and came home and talked about it. It is safe to assume that the number of students who received the information, but did not share it with their parents is even higher.

Based on the significant number of students who have reported to a parent about having heard urban runoff prevention messages, it appears that the school outreach program has been effective.

Effectiveness of the Media Outreach Program

According to the 2005 survey, the most effective (most recognized by residents) form of advertising are the “No dumping, drains to ocean” stencils (81%) and newspaper articles (65%). Although part of the overall stormwater program, stencils were not an integral element of the education campaign. Their success can be attributed to a couple of factors. First, the stencils are on a large percentage of storm drains throughout the County. Nearly every resident has a stencil in his or her neighborhood. Also, the stencil program has been active in Orange County for many years. While other education programs were introduced in the last 30 months, residents have seen the stencils for more than a decade. The other very effective program has been newspaper articles. Similar to the stencils, articles on water pollution have been available to the public for decades and have had time to resonate.

Other effective aspects of the program (recognized by residents) were the PSAs on radio (39%), PSAs on cable (38%), newspaper advertising (35%), brochures (28%) and community events (20%). All five of these programs were initiated 30 months ago through the outreach campaign and have significantly resonated with residents. While most of these campaign elements were specific to Orange County, a few had the additional assistance from other regional campaigns such as “Don’t Trash California” and the “Used

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Oil" program.

Less effective aspects of the program (least recognized by residents) were movie theater advertising (14%), workplace information (14%), bus advertising (13%) door hangers (12%), and Spanish radio PSAs (6%). While Spanish radio was the least recognized program by all respondents to the survey, among Spanish speaking respondents it was substantially higher (18%). All of these specific campaign elements were created and implemented during the 30-month outreach campaign (Figure 6.2).

When determining whether an element should be eliminated from the campaign, it is important to evaluate the number of sources people received information from. According to the 2005 survey, 29% of people received stormwater information from one or two sources. If the majority of these people received information from a source that is eliminated, the campaign would be less effective. However, in this circumstance, only 2% of people who received information from one or two sources received information from theater ads or bus backs. In regarding to theater advertising, it is possible that residents confused cable PSAs with theater advertising because both played the same spot. Since cable advertising was highly recognized by residents, the campaign could have been less effective if it were removed. In the case of bus back advertising, the program would still have been effective without this element.

Another aspect of the program that was evaluated was the print advertising. While, 35% of people recalled seeing print advertising, it is important to note what papers residents are reading. While the largest percentage of advertising was in the Orange County Register, the program did advertise in the Los Angeles Times a half dozen times a year. According to the survey, the percentage of people who get most of their information on urban run-off from the Times dropped from 12% to 9% (Orange County Register is 28%). Also, only 5% of people who received information from one or two sources received the information from print advertising. Therefore, advertising in the Times could likely have been less frequent without affecting the effectiveness of the campaign (Figure 6.3 Effectiveness of Print Advertising).

According to the 2005 survey, the percentage of voters saying there is enough information has increased (+1% and +5% from a split question). However, residents continue to believe that there is not enough information provided about how to stop urban runoff and ocean pollution in Orange County. So while some of the elements of the campaign could have been eliminated, the survey demonstrated that people need to receive information from a variety of sources. The Internet appears to be an emerging source of information, increasing 6% to 10% (third highest source of information).

6.4 Summary

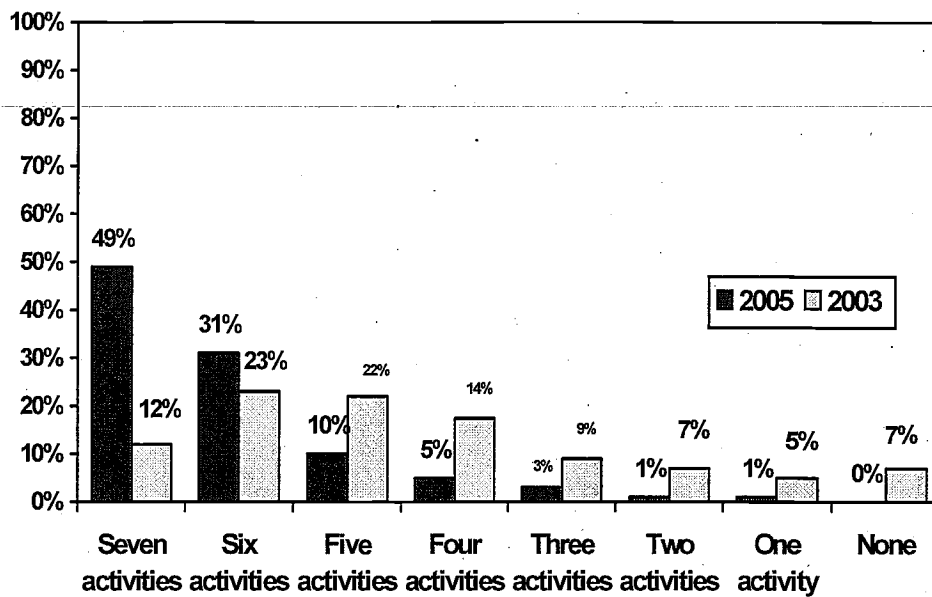
Since the inception of the Orange County Stormwater Program outreach campaign, information on stormwater and urban runoff has made initial inroads in increasing awareness. This increase is seen in nearly every element of the program and demonstrates a great beginning to a program that was implemented in a short period of time.

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Although all of the elements of the program contributed to the success of the campaign, the program could have considered eliminating bus back advertising. Print ads in the Los Angeles Times could have been reduced and ads in the full-run Orange County Register could have been increased. Another element that could have been added is online marketing. Overall the program demonstrated an effective start to the education campaign.

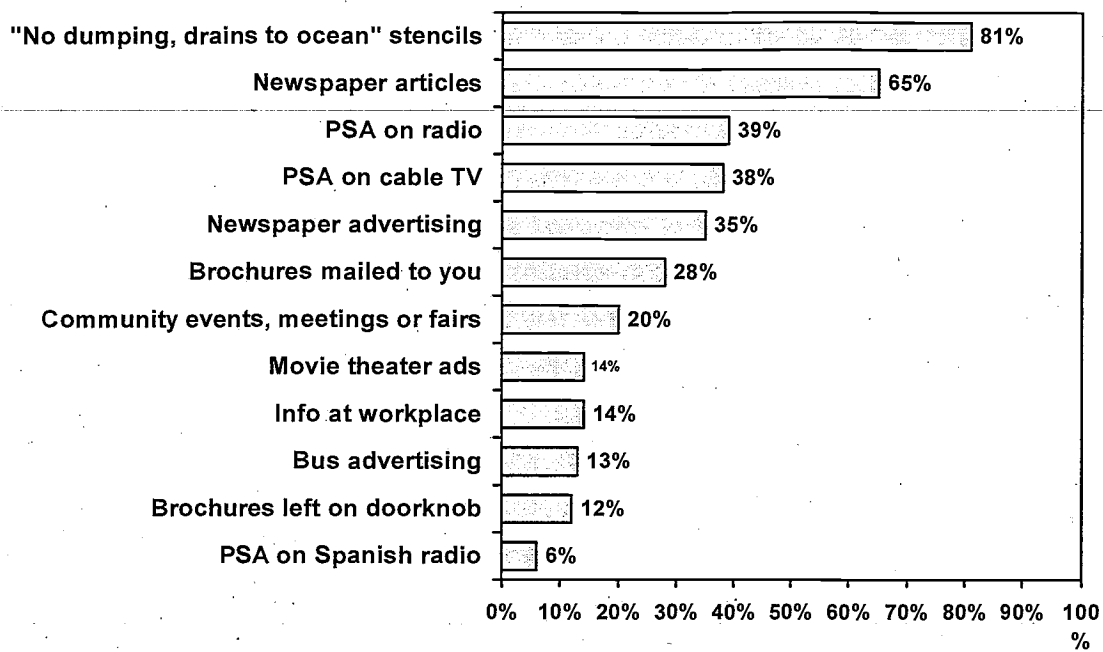
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Figure 6.1: Resident Participation in Pollution Prevention Activities



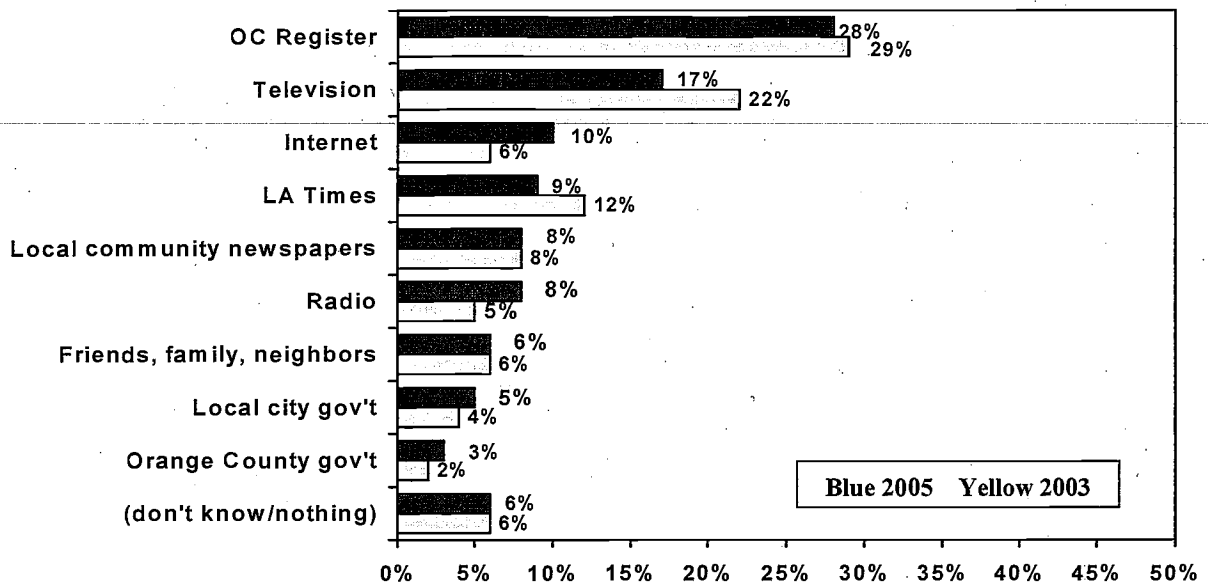
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Figure 6.2: Effectiveness of Media Outreach Program



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Figure 6.3: Effectiveness of Print Advertising



SECTION 7.0, NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT

7.0 NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT

7.1 Introduction

One of the most important responsibilities of local government is to provide a decision making and approval processing framework for new development and re-development. This framework ensures that (1) development occurs in an orderly and organized fashion in a manner that reflects the vision and needs of the community, (2) environmental issues associated with development are assessed, and (3) provides a regulatory framework to ensure that standards set by the jurisdiction are implemented.

Since the inception of the Program, it has been recognized that the incorporation of BMPs into a development project in its planning stages offers a unique opportunity to limit increases in pollutant loads. **DAMP Section 7.0** links new development BMP design, construction and operation to the earlier phases of new development project planning, encompassed by the jurisdictional General Plans environmental review and development permit approval processes.

7.2 Accomplishments

7.2.1 New Development/Significant Redevelopment Program

In 1993, the New Development/Construction Task Force, comprised of representatives from the Principal Permittee, Building Industry Association (BIA), Association of General Contractors (AGC) and Civil Engineers & Land Surveyors of California (CELSOC), completed a report - *Best Management Practices For New Development Including Nonresidential Construction Projects (1-5 acres)* - that provided the basis for requiring the incorporation of structural and non-structural BMPs into development. This report was the basis of the New Development component of the DAMP during the First and Second Term Permits.

The requirements of the Third Term permits significantly increased the complexity of the new development provisions of the DAMP. These provisions provide a framework and a process for integrating watershed protection/stormwater quality management principles into the Permittees' General Plans, environmental review processes, and development permit approval processes. The new development provisions also cover initial project planning and project design, construction and completion, including requirements for the selection, design and long-term maintenance of permanent BMPs. Specifically, the new development provisions require the Permittees to:

- Assess the need to revise and update General Plans to include watershed and stormwater quality and quantity management considerations.
- Review CEQA processes for potential stormwater quality impacts and mitigation.
- Review development planning/permit approval process for stormwater protection principles.

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- Develop and implement a model Water Quality Management Plan (WQMP) (also referred to as a Standard Urban Stormwater Mitigation Plan - SUSMP) to address impact from new development and significant redevelopment.

For the area of Orange County within the San Diego Regional Water Quality Control Board jurisdiction of Orange County (area south of El Toro Rd.), each municipality was required by the Permit to develop a Local WQMP, based on the model WQMP, to oversee new development and significant redevelopment within their local jurisdiction. These Local WQMPs were finalized for implementation on August 13, 2003.

For the area of Orange County within the Santa Ana Regional Water Quality Control Board jurisdiction of Orange County (area north of El Toro Rd.), the Model WQMP explains the requirements placed upon all new development and significant redevelopment projects. The Model WQMP underwent a lengthy public review process and was approved for implementation by the Executive Officer of the Santa Ana Regional Water Quality Control Board on September 30, 2003.

During the 2004-05 reporting period, 551 Project WQMPs were processed for 3,227 acres of development. Since 1997, a total of 3,193 Project WQMPs have been approved, covering 27,287 acres which represents approximately 6% of the area within Orange County subject to the Third Term Permits.

- Conduct education or training.

Five training modules have been developed and have been given:

1. General Plan Issues;
2. New Development/Significant Program Management;
3. Project Planning and Design: Environmental Review, Planning and Permitting and WQMP Development;
4. Stormwater BMP Effectiveness and Applicability for Orange County, and
5. Stormwater Treatment: How it Works (Or Does It?).

7.2.2 California Sustainable Watershed/Wetland Information Manager (CalSWIM)

CalSWIM (<http://calswim.org/>) is an Orange County Storm Water Program and University of California, Irvine (Departments of Engineering and Informatics) initiative to develop a web-based expert system and prototype database designed to support cost-effective and scientifically justifiable decisions regarding the monitoring, management, and alteration of coastal urban wetlands and their associated watersheds. Initiated in 2004, CalSWIM currently delivers:

- Forecasting and now-casting of nutrient levels, sediment supply, indicator bacteria, and pathogens in the Newport Bay Watershed, and

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- Targeted evaluation of management decisions that affect the habitat quality and ecological function of coastal wetlands, and/or that directly bear on pollutants of concern.

7.2.3 Hydromodification

Hydromodification arises from changes in the volume, magnitude and duration of flows that can occur coincident with urbanization and is evident in the landscape as channel incision and bank erosion in the upper and middle portions of a watershed and as aggradation and increased channel meandering in the downstream areas of the watershed. In 2005, the Permittees supported, through the Stormwater Monitoring Coalition (SMC) and California Stormwater Quality Association (CASQA), a workshop that was convened to provide an overview of the key technical and managerial issues associated with hydromodification in S. California (see Stein and Zaleski, 2005¹).

7.3 **Assessment**

The current and potential program effectiveness assessment outcome levels for the New Development /Significant Redevelopment Program are presented in Table 7.1.

7.3.1 New Development/Significant Redevelopment Program

CEQA review processes were reviewed for adequacy early in the period of the Third Term Permits. However, in preparing the ROWD, a number of Permittees commented that the overall planning approval process for projects needs to more effectively ensure that water quality protection is considered in the earliest phases of project consideration through further elaboration of the preliminary or conceptual WQMP concept in the DAMP.

ROWD Commitment:

- Prepare guidance documentation and clarify requirements for the preliminary or conceptual Project WQMP.

The Model WQMP identifies BMPs for new development and significant redevelopment projects that are subject to WQMP requirements pursuant to DAMP Section 7. Depending upon the project size and characteristics, these BMPs include Site Design BMPs, applicable Source Control BMPs and Project-based Treatment Control BMPs (and/or participation in an approved regional or watershed management program).

¹ Managing Runoff to Protect Natural streams: The Latest Developments on Investigation and Management of Hydromodification in California; Stein and Zaleski, SCCWRP Technical Report 475, December 2000.

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The requirement for new developments/significant redevelopment projects to prepare a WQMP has been an established part of the planning approval process (See Table 7.2) since the 1993 DAMP and all Permittees certified they were implementing this part of the Program in 1997. While there is considerable variation in the level of activity between the Permittees, this variability can be attributed to the availability of land for development/redevelopment within a particular jurisdiction. Indeed, the County of Orange and the cities of Irvine and Anaheim, with large swathes of undeveloped land, show the highest numbers of WQMPs processed.

Headline Indicator - Number of WQMPs processed and the area (acreage) to which BMPs have been applied: During the 2004-05 reporting period, 551 WQMPs were processed for 3,227 acres of development compared to 461 WQMPs processed for 1,595 acres of development in 2003-04, and 391 WQMPs processed for 2,836 acres of development in 2002-03 (Table 7.2; Figure 7.1).

Level 1: Implement Program

Headline Indicator - Number of BMPs Implemented: A total of 5,061 BMPs were implemented in the 2004-05 reporting period. This total represents a 129% increase in the total number of BMPs implemented in 2003-04 (2,201) and a 112% increase from the total number of BMPs implemented in 2002-03 (2,389) (Figure 7.2).

Level 3: Behavior Change

During the Third Term Permit term, the structural source controls used most often were: common area efficient irrigation systems and landscape design, filtration, storm drain stenciling, and trash storage area. The non-structural source controls used most often include: employee training, common area litter control, common area landscape management, street sweeping, education, BMP maintenance, and activity restrictions. The most common treatment control BMPs that have been implemented include catch basin screens, catch basin filters, and stormwater treatment units (hydro-dynamic separators).

In preparing the ROWD, a number of Permittees have commented that (1) the guidance for selecting BMPs needs to be updated and enhanced, particularly with regard to treatment control BMPs, (2) there is a possible inconsistency in provisions regarding site prioritization, and (3) adjacent municipal stormwater programs have more effective provisions regarding the consideration of Site Design BMPs.

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DAMP Modification:

- Revise *Model WQMP Table 7.II.6* for latest information on BMPs and clarity.
- Evaluate and revise (as necessary) prioritization provisions for Countywide consistency.

ROWD Commitment:

- Develop recommendations (through cooperative Stormwater Monitoring Coalition project) for incorporation of LID techniques into resource and water quality protection requirements.
- Develop library of BMP performance reports.
- Develop standard design checklist/plans/details for selected Source Control and Treatment Control BMPs.
- Develop recommendations for enhanced Model WQMP language regarding Site Design BMPs.
- Develop and implement BMPs for architectural uses of copper and zinc.

In 2005 the Santa Ana Regional Board formally approved the Irvine Ranch Water District's Natural Treatment System as a regional treatment control BMP for a portion of the Newport Bay Watershed. The project is significant for it being the first expression in the area under the jurisdiction of the Santa Ana RWQCB of a regional approach to stormwater treatment.

ROWD Commitment:

- Evaluate the NTS approval process and develop recommendations for streamlining regulatory agency approval of regional Treatment Control BMPs.

The New Development/Significant Redevelopment component of the Program ends with permit close-out and the BMPs transition to the Existing Development component. The Permittees believe that the BMP approach to stormwater management is most effectively sustained by ensuring the longevity of the WQMP through successive ownerships. Additionally, the Permittees requested additional guidance on recording WQMPs in a manner that would enable them to enforce the approved WQMP against subsequent property owners and ensure ongoing

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responsibility for BMP maintenance.

ROWD Commitment:

Prepare guidance and training as needed on the recordation process (timing and appropriate documents to use) and develop recommendations for appropriate methods to employ to enable the Permittees to enforce the approved WQMP against subsequent property owners.

Training: Both the Permittees and RWQCB staff has identified a need for updated and additional training regarding WQMP review and approval.

ROWD Commitment:

- Prepare a training schedule and curriculum including defined expertise and competencies for staff with WQMP review and approval responsibilities.
- Prepare a workshop schedule and curriculum for the private sector on WQMP preparation.

7.3.2 California Sustainable Watershed/Wetland Information Manager (CalSWIM)

This initial development and deployment of CalSWIM has focused on Newport Bay, the regionally important tidal saltwater marsh. However, CalSWIM will in the future be extended with an open and scalable architecture to facilitate its rapid redeployment at other coastal urban wetland sites in southern California and elsewhere.

7.3.3 Hydromodification

While the major development projects in Orange County have now been entitled, the Permittees recognize that hydromodification is an emerging issue of concern as the future regulation and management of runoff from urban areas is increasingly considered with respect to the overarching objective of the CWA i.e. maintenance of the chemical, physical and biological integrity of the nation's waters.

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DAMP Modification:

- Revise *Model WQMP Section 7.II-3.2.4 Identify Hydrologic Conditions of Concern* to incorporate additional information from hydromodification study.

7.4 Summary

The Third Term Permits have required the Permittees to develop and implement a significantly revised SUSMP- equivalent program for new development/significant redevelopment. This effort was completed Countywide by the end of 2003 and has resulted in an enhanced a WQMP program that, since 1997, has resulted in a total of 3,193 approved Project WQMPs. While the WQMP program is long-established, the review points to a possible continuing emphasis on pollution prevention BMPs and less progress regarding Site Design BMPs using LID approaches. Consequently, the development of additional training and technical support documentation on these approaches is being proposed as an area for further development. In addition, the Permittees have provisionally identified an opportunity, possibly through a Notice of Transfer of Responsibility, recordation, or other means, to enhance efficacy of the WQMP. This opportunity will be the future subject of a formal recommendation to the Permittees.

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Table 7.1: Current and Potential Outcome Levels (New Development/Significant Redevelopment)

Development Program Component	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
WQMPs	✓ # of WQMPs approved		P # BMPs implemented	P Load reduction associated with BMPs		
Training	✓ Track number/type of training sessions	P Surveys show improved knowledge				
<p><u>Key:</u> ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level</p>						

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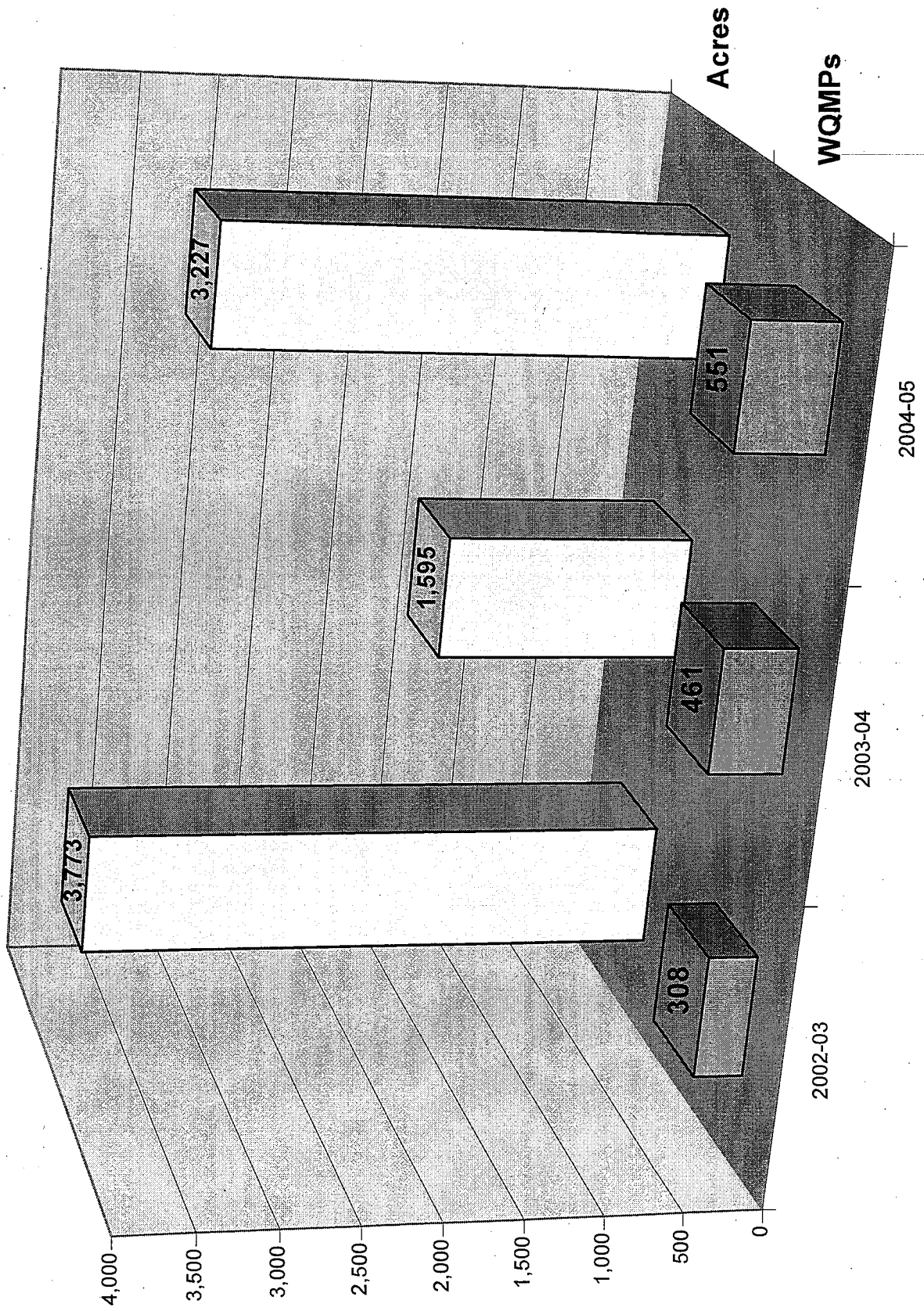
Table 7.2: Historical WQMPs and Acreage Covered

Permittee	2002-03		2003-04		2004-05	
	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP	# of WQMPs Approved	Acreage Covered by WQMP
Aliso Viejo	1	23	3	NA	8	60
Anaheim	38	100	16	41	33	67
Brea	2	NA	5	NA	6	58
Buena Park	14	NA	8	NA	3	18
Costa Mesa	27	93	10	3	157	38
Cypress	11	14	22	NA	8	76
Dana Point	NA	NA	6	NA	1	121
Fountain Valley	5	37	2	NA	5	9
Fullerton	18	145	23	65	10	NA
Garden Grove	28	NA	21	NA	18	42
Huntington Beach	19	133	16	104	20	110
Irvine	87	NA	120	NA	100	485
La Habra	7	NA	0	0	2	1
La Palma	0	0	0	0	2	3
Laguna Beach	0	NA	11	NA	12	22
Laguna Hills	2	NA	6	NA	8	9
Laguna Niguel	2	NA	3	NA	1	21
Laguna Woods	NA	NA	4	NA	3	21
Lake Forest	16	40	7	26	4	8
Los Alamitos	0	0	4	NA	NA	NA
Mission Viejo	8	236	10	246	5	10
Newport Beach	NA	NA	18	NA	15	25
Orange	3	11	14	116	10	58
Placentia	0	NA	0	0	2	3
Rancho Santa Margarita	0	0	4	NA	4	4
San Clemente	10	277	22	146	4	329
San Juan Capistrano	8	85	10	NA	9	102
Santa Ana	19	61	23	NA	12	28
Seal Beach	0	0	2	NA	1	NA
Stanton	NA	NA	6	NA	7	3
Tustin	3	1	9	105	4	5
Villa Park	0	0	0	0	0	0
Westminster	8	8	15	17	13	10
Yorba Linda	6	145	14	234	20	187
County of Orange	49	1,426	27	491	44	1,294
TOTALS	391	2,836	461	1,595	551	3,227

NA = Not Available

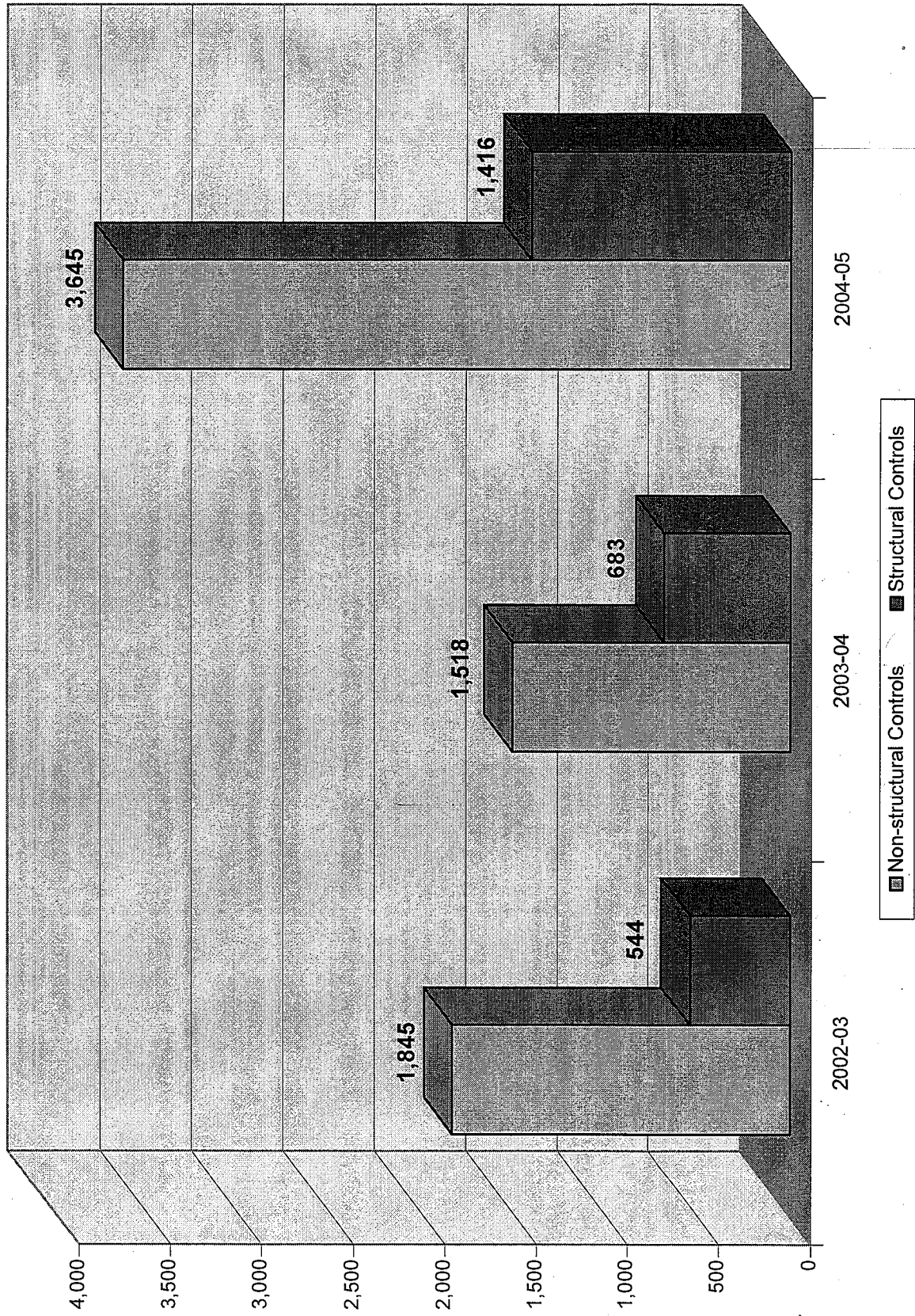
SECTION 7.0, NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT

Figure 7.1: Historical WQMPs and Acreage Covered



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Figure 7.2: Structural and Non-Structural Source Control BMPs Implemented



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8.0 CONSTRUCTION

8.1 Introduction

The Permittees regulate construction activities and have responsibility for the construction and reconstruction of municipal facilities and infrastructure. Concern over construction sites as a major source of sediment and other pollutants has meant that construction activity has been a focus of the Permittees' compliance program since the First Term Permits.

8.2 Accomplishments

8.2.1 Model Construction Program

This Model Construction Program was developed and implemented in 2002-03. It requires all construction projects regardless of size to implement an effective combination of erosion and sediment controls and waste and materials management BMPs. It also establishes inspection obligations on the Permittees. Previously, the Permittees' oversight of construction activities was based upon ensuring conformance of public works projects with the *Greenbook Standard Specifications for Public Works Construction*. Specifically, the Model Construction Program requires the Permittees to:

- Inventory construction sites

In May 2002, a construction site inventory spreadsheet was finalized and distributed to the Permittees so that each municipality could develop their inventories by October 15, 2002, as required by Section VIII.1 of the 2002 Santa Ana Permit.

- Prioritize construction sites based upon water quality threat

During 2004-05, thirty-four (34) Permittees reported conducting 15,067 construction site inspections comprising 5,504 high priority site inspections, 1,542 medium priority site inspections and 8,021 low priority site inspections.

- Prepare BMP Guidance

The Permittees produced and distributed the *Construction Runoff Guidance Manual*.

- Conduct Inspections of construction sites

During the Third Term Permits 25,831, 25,549 and 15,067 site inspections were conducted in the 2002-03, 2003-04 and 2004-05 reporting periods respectively.

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- Undertake Enforcement

As a result of the 2004-05 inspections, thirty-three (33) Permittees reported the issuance of 445 Educational Letters, 1,052 Notices of Non-compliance, 74 Administrative Compliance Orders, 81 Cease and Desist Orders, and 47 Misdemeanor/Infractions.

- Conduct Training

To assist responsible municipal and contract/lease staff in understanding the Construction Program, two training modules have been developed:

- 1) Construction Program Management.
- 2) Inspecting Construction Site BMPs.

In the 2004-05 reporting period Construction Inspection training was provided in two sessions to 167 inspectors.

8.3 Assessment

The current and potential Program effectiveness Assessment Outcome Levels for the current program are summarized in **Table 8.1**.

8.3.1 Model Construction Program

Inventories

The year-to-year status of the Permittees' inventories are not tracked at a Countywide level and consequently this aspect of the model program cannot be assessed.

Prioritization

The Permittees prioritize construction sites based upon a consideration of the size and type of construction, time of construction, location, and site topography. While the numbers of sites of each priority are not tracked at a Countywide level, the year-to-year changes in the level of inspection activity (**Table 8.2**) shows inconsistent reporting between the Permittees.

DAMP Modification:

- Provide definitive construction site prioritization and reporting guidance.

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Inspection

The Permittees inspect construction sites to verify that the requirements of the DAMP are being implemented. The inspection frequency is determined by the season ("Wet" or "Dry") and a site's prioritization. The need for follow-up inspections also contributes significantly to the overall level of activity within a reporting period.

Headline Indicator - Inspection Activity: In 2004-05 thirty-four (34) Permittees completed 5,504 high priority, 1,542 medium priority, and 8,021 low priority construction site inspections. In 2003-04, 8,445 high priority, 5,731 medium priority, and 11,363 low priority construction site inspections were completed; and in 2002-03, 4,060 high priority, 15,937 medium priority, and 5,834 low priority construction site inspections were completed (Table 8.2; Figure 8.1).

Level 1: Implement Program

While the level of inspection activity is significant (15,000 inspections in the last reporting period) there are disparities between the Permittees which indicates inconsistent reporting. A major component of this activity is re-inspection following a finding of non-compliance. The Permittees believe that the re-inspection obligation is not sufficiently sensitive to the severity of the non-compliance, and RWQCB staff is concerned that the mandated level of follow-up activity may be discouraging findings of non-compliance.

DAMP Modification:

- Clarify inspection frequencies, violation definitions and re-inspection requirements.

Enforcement

Inspectors enforce compliance with the Model Construction Program, grading or building permit, sediment and erosion control plan, and the Water Quality Ordinance. Enforcement steps that may be taken by inspectors include but are not limited to verbal warnings, administrative actions under the Water Quality Ordinance (notice of violation, administrative compliance order, etc.) and written actions under Building/Grading Ordinances (corrective action notice, stop work order, etc.).

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Headline Indicator - Extent of Compliance: As a result of the 2004-05 inspections, thirty-three (33) Permittees reported 1,514 construction requiring 1,521 re-inspections compared to 1,066 construction sites requiring 1,072 re-inspections in 2003-04; and 408 construction requiring 542 re-inspections in 2002-03 (Table 8.3; Figure 8.2).

- Level 1: Implement Program
- Level 3: Behavior Change

Headline Indicator - Number and Level of Enforcement Actions: As a result of the 2004-05 inspections, thirty-three (33) Permittees reported taking a total of 1,699 enforcement actions. This compares to 3,475 enforcement actions taken in 2003-04, and 1,395 enforcement actions taken in 2002-03 (Table 8.4; Figure 8.3).

- Level 1: Implement Program
- Level 3: Behavior Change

The significant disparities in enforcement activity between the Permittees clearly indicate inconsistent reporting. However, the consistent pattern of a peak of activity in 2003-04 and a subsequent reduction in the 2004-05 reporting period in construction and other stormwater program areas (Existing Development and Illegal Discharges/Illicit Connections) suggests an increased level of compliance within the regulated community.

Training

The Permits require that staff is adequately trained. In response, the Permittees developed two training modules and a guidance manual. However, the training modules need to be updated frequently enough to keep pace with the developments in the field of construction site sediment and erosion control management, and to provide inspectors with a technical understanding of BMPs. In addition, the training of inspectors regarding construction site inspection and oversight has been identified as a particular area of concern for Regional Board staff.

ROWD Commitment:

- Prepare a training schedule including curriculum content and defined expertise and competencies for construction inspectors.

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8.4 Summary

The Third Term Permits have required the Permittees to develop and implement a formal inspection program commencing with an initial prioritized inventory of construction sites. Over the first three years of this effort, there has been a clear trend in the level of inspection and enforcement activity that, despite some uncertainties with respect to reporting, suggests increased BMP implementation and compliance with local water quality and grading/building ordinances by the regulated community. Based upon perceived positive outcomes of the Construction elements of the DAMP, the Permittees are proposing minor program modifications based upon the need for the continued training of inspectors and the sensitizing of the prioritization and inspection process toward a more risk-based approach.

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Table 8.1: Current and Potential Outcome Levels (Construction)

Construction Program Component	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Inventory	✓ Maintain inventory					
Prioritization	✓ Assign priorities		P Change in prioritization level			
Inspection	✓ Conduct and Track number of inspections	P Number of re-inspections	P # BMPs implemented	P Load reduction associated with BMPs		
Enforcement/ Reporting	✓ Conduct enforcement		✓ Extent and correction of problem level of enforcement			
Training	✓ Track number/type of training sessions	P Surveys show improved knowledge				
<p><u>Key:</u> ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level</p>						

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Table 8.2: Construction Site Inspections Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEES	Number of Sites Inspected								
	HIGH 2002-03	HIGH 2003-04	HIGH 2004-05	MEDIUM 2002-03	MEDIUM 2003-04	MEDIUM 2004-05	LOW 2002-03	LOW 2003-04	LOW 2004-05
Aliso Viejo	2	3	2	51	51	1	53	0	39
Anaheim	3	0	0	51	27	48	138	839	850
Brea	0	4	3	20	10	6	9	8	36
Buena Park	0	0	2	20	9	15	180	19	590
Costa Mesa	30	19	15	0	0	0	2,223	5,974	522
Cypress	1	2	5	0	1	0	7	9	1
Dana Point*	NA	16	24	NA	4	8	NA	1,077	182
Fountain Valley	25	5	6	0	0	0	163	353	87
Fullerton	84	17	1	3	34	0	30	67	10
Garden Grove	0	9	0	0	0	0	56	17	49
Huntington Beach	25	3	59	123	66	165	376	422	320
Irvine	132	67	114	1	41	99	2	63	175
La Habra	0	0	0	12	1	1	560	353	360
La Palma	25	0	6	123	0	0	376	5	0
Laguna Beach	1	1	2	32	47	111	0	0	0
Laguna Hills	210	183	209	0	0	0	0	0	0
Laguna Niguel	1	14	34	7	0	0	304	109	1,398
Laguna Woods	34	7	1	0	0	3	27	4	0
Lake Forest	4	2	1	21	9	13	18	5	1
Los Alamitos	0	0	NA	0	1	NA	0	292	NA
Mission Viejo	1,869	2,570	1,100	2,040	506	495	0	0	0
Newport Beach	4	3	2	54	23	0	162	270	648
Orange	3	7	7	20	40	37	563	193	153
Placentia	0	1	1	3	6	4	8	5	5
Rancho Santa Margarita	0	0	0	0	2	2	24	0	269
San Clemente	NA	34	276	NA	120	163	NA	0	0
San Juan Capistrano	1,304	199	48	12,595	4,674	300	0	0	400
Santa Ana	0	0	0	73	29	41	63	51	68
Seal Beach	NA	2	1	NA	0	0	NA	975	1,612
Stanton	NA	2	4	NA	0	4	NA	0	25
Tustin	5	6	13	1	7	4	49	56	4
Villa Park	0	0	0	0	0	0	127	166	175
Westminster	18	5	5	4	0	0	8	11	22
Yorba Linda	2	7	10	23	23	22	14	20	20
County of Orange/OCFCD	278	5,267	3,553	660	**See explanation below	**See explanation below	294	**See explanation below	**See explanation below
Totals	4,060	8,455	5,504	15,937	5,731	1,542	5,834	11,363	8,021

NA = Not Available

*includes undetermined amount and different categories

** the database system the County uses to track construction inspections does not differentiate between high, medium, and low priority construction sites; therefore, all sites are classified as "high" priority.

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Table 8.3: Inspection Results, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEES	2002-03		2003-04		2004-05	
	Number of Construction Sites Out of Compliance	Number of Re-Inspections Due to Non-Compliance	Number of Construction Sites Out of Compliance	Number of Re-Inspections Due to Non-Compliance	Number of Construction Sites Out of Compliance	Number of Re-Inspections Due to Non-Compliance
Aliso Viejo	27	27	45	33	21	21
Anaheim	4	4	55	14	33	48
Brea	1	1	0	0	2	3
Buena Park	0	0	5	5	29	15
Costa Mesa	2	3	NA	NA	0	0
Cypress	NA	NA	1	1	2	2
Dana Point	NA	NA	NA	NA	98	105
Fountain Valley	56	56	43	43	4	4
Fullerton	8	12	105	105	8	2
Garden Grove	3	3	4	4	1	1
Huntington Beach	54	130	23	39	150	54
Irvine	3	3	33	40	35	35
La Habra	14	17	18	18	68	81
La Palma	0	0	0	0	1	2
Laguna Beach	NA	NA	NA	NA	68	68
Laguna Hills	2	3	7	8	9	9
Laguna Niguel	14	26	24	24	23	23
Laguna Woods	1	1	0	0	6	6
Lake Forest	2	2	0	0	7	7
Los Alamitos	0	0	0	0	NA	NA
Mission Viejo	57	61	67	69	137	139
Newport Beach	0	0	NA	NA	67	75
Orange	0	0	7	7	8	8
Placentia	5	5	5	5	6	6
Rancho Santa Margarita	0	0	0	0	8	5
San Clemente	NA	NA	161	161	NA	NA
San Juan Capistrano	50	50	56	84	49	72
Santa Ana	13	23	7	7	12	22
Seal Beach	NA	NA	21	21	NA	NA
Stanton	NA	NA	0	0	2	8
Tustin	19	67	0	0	7	40
Villa Park	0	0	0	0	0	0
Westminster	1	2	5	10	5	12
Yorba Linda	7	6	4	4	6	6
County of Orange/OCFCD	65	40	370	370	642	642
Totals	408	542	1,066	1,072	1,514	1,521

NA = Not Available

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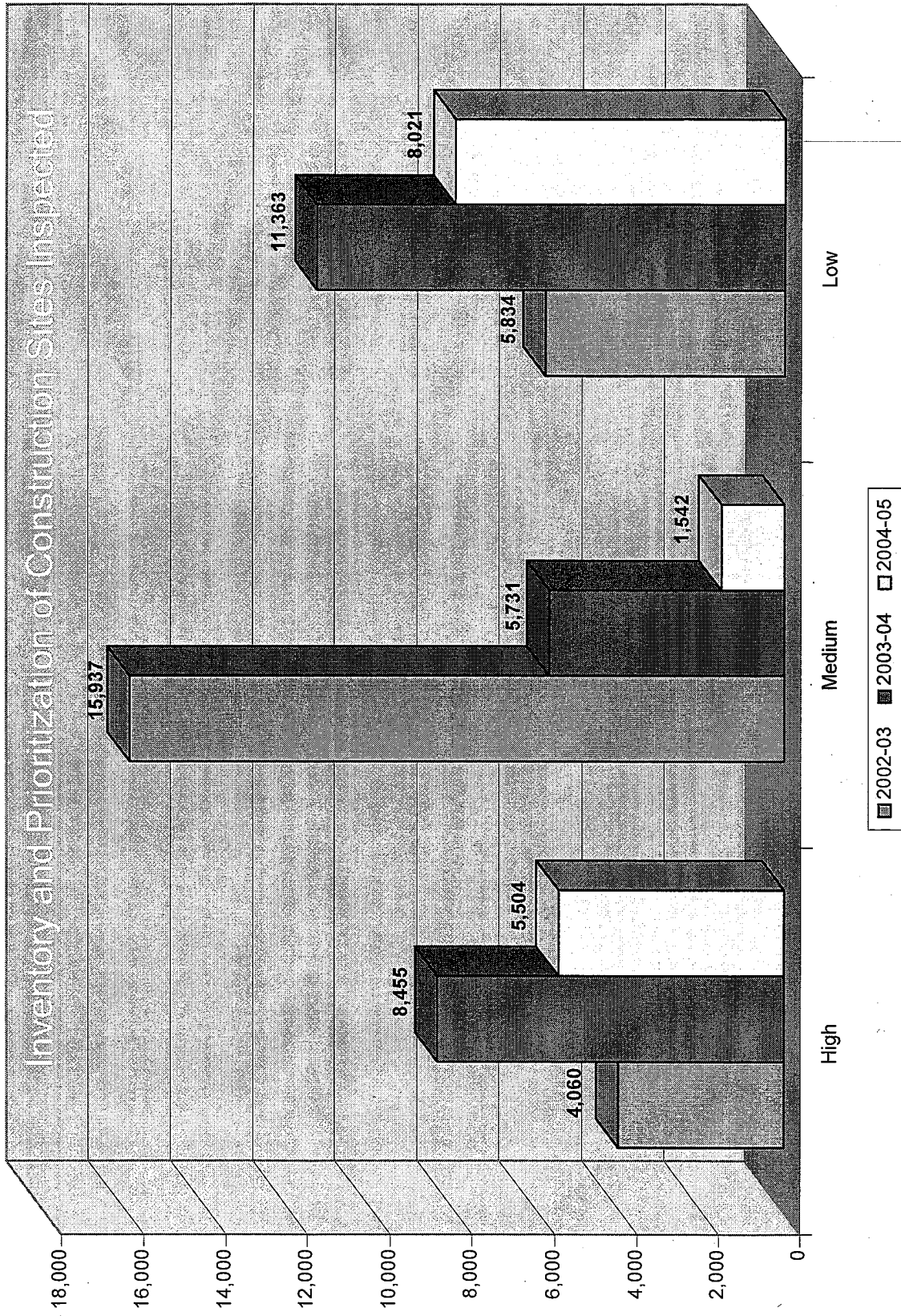
Table 8.4: Enforcement Action Taken, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEES	FY 2002-03				FY 2003-04				FY 2004-05					
	Administrative Remedies			Criminal Remedies Misdr, Infrect	Administrative Remedies			Criminal Remedies Misdr, Infrect	Administrative Remedies			Criminal Remedies Misdr, Infrect		
	No. of ELJ/VW	No. of NON	No. of AC		No. of ELJ/VW	No. of NON	No. of AC		No. of ELJ/VW	No. of NON	No. of AC			
Alliso Viejo	0	0	27	6	0	0	32	7	0	0	43	0	0	0
Anaheim	0	0	2	0	55	0	0	0	0	0	0	6	0	0
Brea	15	1	0	0	0	0	0	0	0	0	0	0	1	0
Buena Park	0	0	0	0	0	3	1	1	0	0	63	0	0	6
Costa Mesa	3	0	0	0	3	0	0	0	0	0	0	0	0	0
Cypress	0	4	0	0	1	10	0	0	0	1	4	0	0	0
Dana Point	2	32	0	0	7	36	0	3	0	29	61	3	5	0
Fountain Valley	400	4	21	6	27	12	15	9	0	168	0	5	2	0
Fullerton	0	5	1	0	51	44	0	5	0	NA	NA	NA	NA	NA
Garden Grove	2	1	0	0	3	4	0	0	0	0	1	0	0	0
Huntington Beach	0	16	1	1	0	23	1	0	0	0	80	0	0	24
Irvine	0	3	0	0	33	0	0	0	0	35	35	0	0	0
La Habra	0	14	0	0	0	18	0	0	0	52	7	2	6	0
La Palma	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Laguna Beach	54	14	37	0	23	23	29	0	0	24	31	13	0	0
Laguna Hills	0	3	0	0	4	3	0	0	0	1	5	0	0	0
Laguna Niguel	0	26	0	0	0	24	0	0	0	0	14	0	0	0
Laguna Woods	2	0	0	0	0	0	0	0	0	8	8	0	0	0
Lake Forest	NA	NA	NA	NA	0	0	0	0	0	0	2	0	0	0
Los Alamitos	4	0	0	0	0	0	0	0	0	NA	NA	NA	NA	NA
Mission Viejo	NA	NA	NA	NA	238	93	0	0	0	0	21	0	0	0
Newport Beach	6	250	200	0	558	618	315	0	0	0	2	0	0	1
Orange	0	0	0	0	7	7	0	0	0	0	8	0	0	0
Placentia	0	5	0	1	0	0	1	0	0	0	1	0	1	0
Rancho Santa Margarita	0	0	0	0	0	0	0	0	0	9	5	0	1	0
San Clemente	1	2	0	1	142	71	7	33	0	34	20	0	11	21
San Juan Capistrano	50	50	0	0	50	6	0	0	0	8	35	0	6	0
Santa Ana	0	13	0	0	0	7	0	0	0	0	3	0	0	0
Seal Beach	NA	NA	NA	NA	41	41	0	0	0	0	19	0	0	0
Stanton	NA	NA	NA	NA	0	0	0	0	0	0	0	0	0	0
Tustin	0	19	0	0	0	0	0	0	0	0	0	0	0	1
Villa Park	15	0	0	0	12	0	0	0	0	0	0	0	0	0
Westminster	0	1	0	0	10	0	0	0	0	0	12	0	0	0
Yorba Linda	0	3	0	4	327	4	0	0	0	0	6	0	0	0
County of Orange/OCFCD	0	65	0	0	5	372	0	0	0	70	607	0	0	0
Totals	554	531	289	19	1,597	1,419	401	58	0	445	1,052	74	81	47

NA = Not Available
 ELJ/VW = Educational Letter/Verbal Warning
 NON = Notice of Non-Compliance
 AC = Administrative Compliance Order
 C&D = Cease and Desist
 Misdr./Infrect = Misdemeanor/Infraction

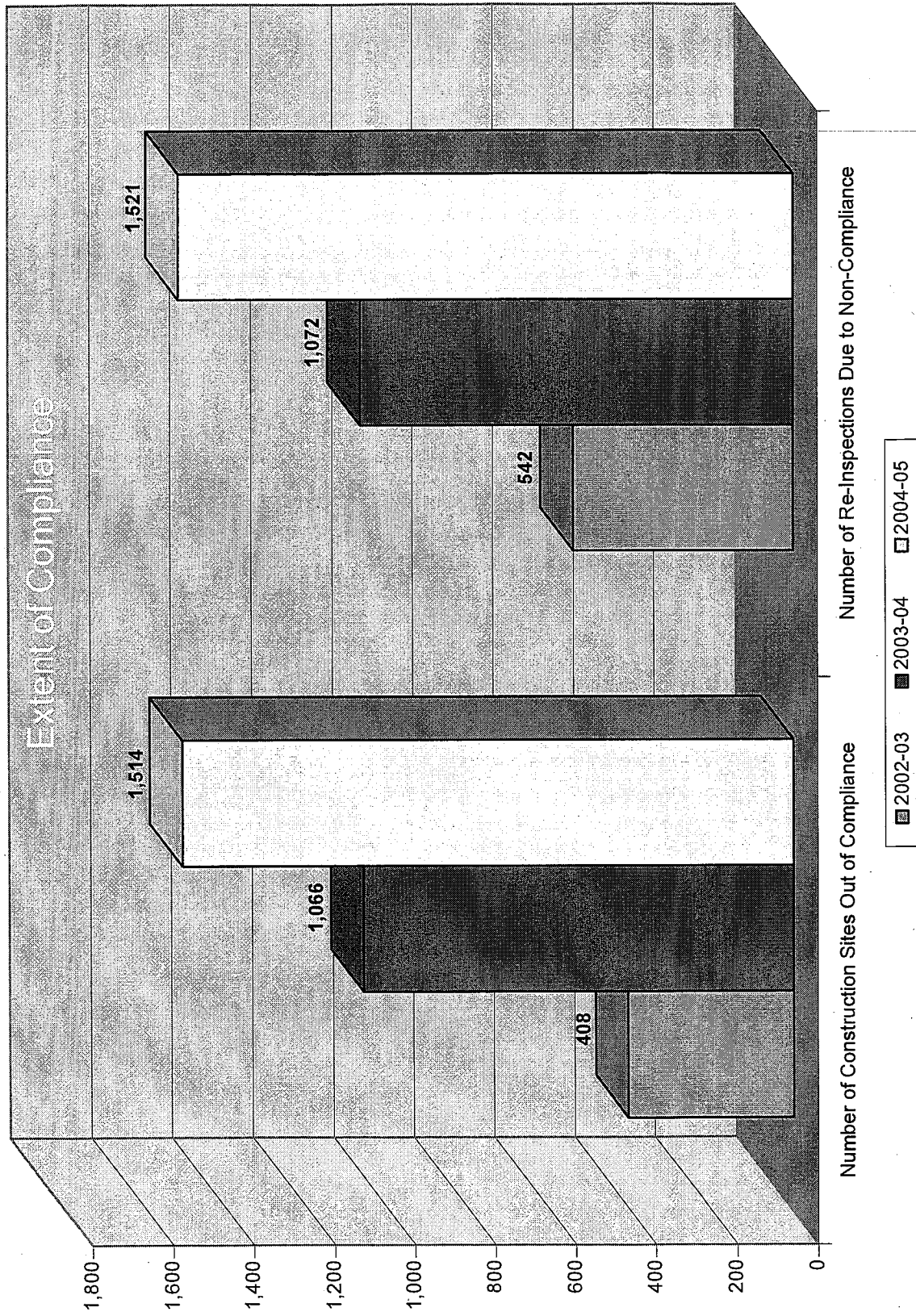
SECTION 8.0, CONSTRUCTION

Figure 8.1: Construction Site Inspections Comparison of 2002-03, 2003-04 and 2004-05



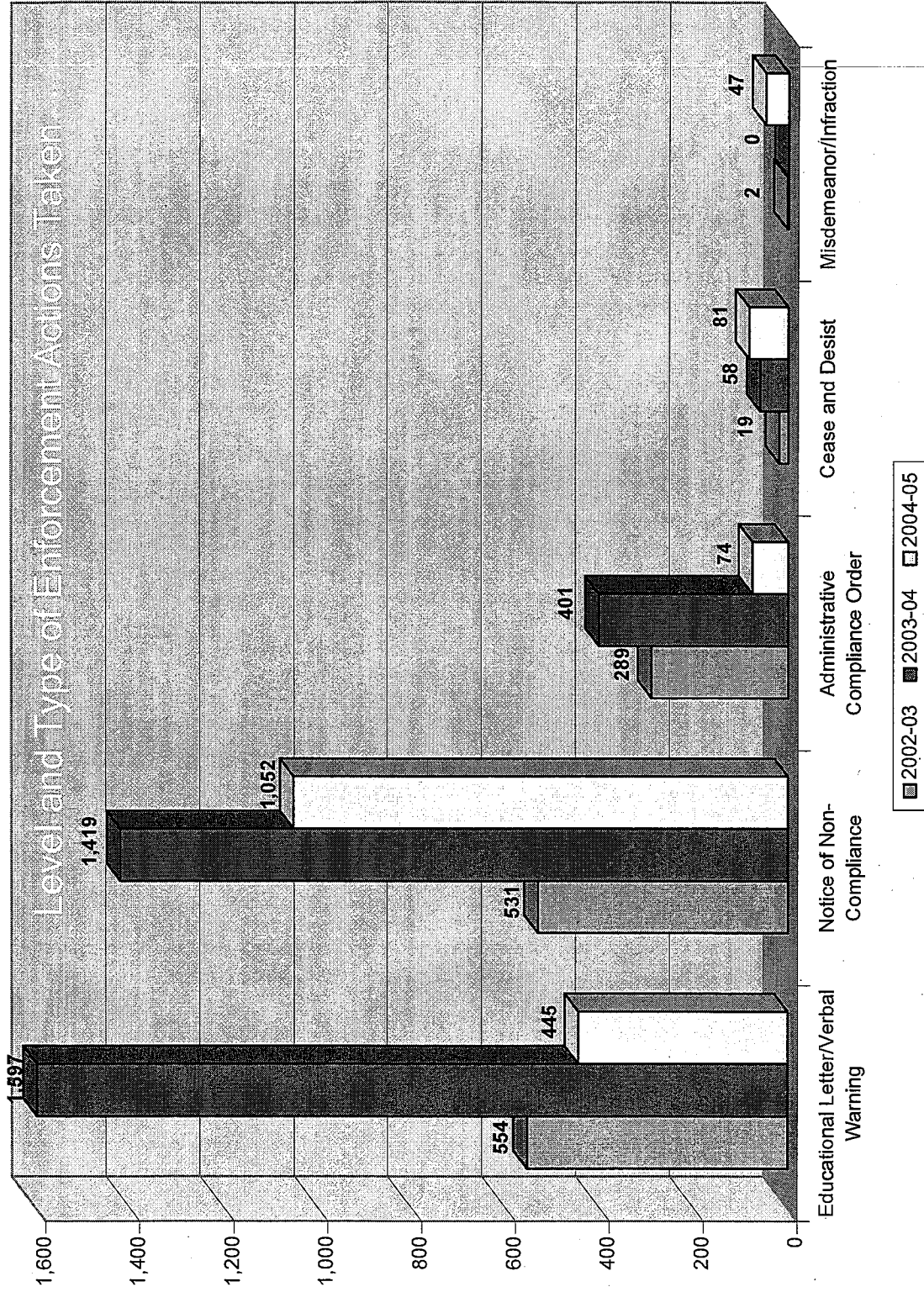
SECTION 8.0, CONSTRUCTION

Figure 8.2: Inspection Results, Comparison of 2002-03, 2003-04 and 2004-05



SECTION 8.0, CONSTRUCTION

Figure 8.3: Enforcement Action Taken, Comparison of 2002-03, 2003-04 and 2004-05



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9.0 EXISTING DEVELOPMENT

9.1 Introduction

Stormwater discharges from commercial and industrial facilities can become contaminated when material management practices allow exposure to stormwater and/or there is commingling of runoff with wastes. The purpose of **DAMP Section 9.0** is to provide a programmatic framework for the regulatory oversight of activities in commercial and industrial areas. Through inspections, outreach and requiring compliance with water quality ordinances, the Permittees are able to pro-actively address the quality of urban and stormwater runoff from industrial and commercial facilities. In addition, **DAMP Section 9.0** also provides a programmatic framework, based upon education and outreach approaches, for addressing activities in residential areas. Both the industrial/commercial and residential elements were added to the Program by the Third Term Permits.

9.2 Accomplishments

9.2.1 Model Industrial/Commercial Program

The Model Industrial/Commercial Program was developed and implemented in 2002-03. It transformed the Permittees oversight of commercial and industrial facilities/activities by establishing a formal inspection program where previously there had been a series of notifications and inspections initiated by complaints. The Model Industrial/Commercial Program requires the Permittees to:

- Identify and inventory facilities/activities with the potential to discharge pollutants:

Initially, 8,546 industrial facilities (**Table 9.1; Figure 9.1**) and 22,789 commercial facilities were identified and inventoried (**Table 9.2; Figure 9.2**).

- Prioritize facilities based upon water quality threat and receiving water sensitivity:

The Permittees prioritized 8,546, 8,604 and 2,821 industrial facilities in 2002-03, 2003-04 and 2004-05 respectively. Concurrently, 22,789, 23,778, and 25,411 commercial facilities were similarly evaluated and prioritized over the same respective periods.

- Establish Model Maintenance Procedures:

Twenty-two (22) model BMP fact sheets have been prepared which include a description of specific minimum source control BMPs for common industrial and commercial activities that may discharge pollutants. Specific BMPs may be adjusted on a jurisdictional basis as necessary. Where applicable, optional controls have been identified that should be considered for implementation at high priority facilities.

Typically each fact sheet contains the following sections:

- Pollution Prevention

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- Suggested Best Management Practices
 - Training
 - References and Resources
- Conduct inspections and monitoring to ensure that commercial and industrial facilities are minimizing their impacts on the environment:

In the 2002-03, 2003-04 and 2004-05 reporting periods the Permittees completed 1,017, 4,029 and 2,706 inspections, respectively.

- Conduct inspections of food facilities:

The Orange County Permittees developed and submitted a food facility inspection program to the Santa Ana Regional Board on July 1, 2002. This program, which also meets the inspection requirements of the San Diego Regional Board, involves inspections and the distribution of educational materials at the approximately 10,000 existing restaurants countywide. The implementation of the Program is an addition to the environmental health inspections conducted by the County of Orange Health Care Agency (HCA). The HCA inspectors identify NPDES issues during these inspections, and they are forwarded to the respective Permittees and addressed by Permittee staff.

For the 2004-05 reporting period, 25,078 food facility inspections were conducted and 1,416 were reported to have NPDES issues (Table 9.3).

- Undertake Non-compliance Notification and Enforcement:

Enforcement for the industrial and commercial component of the Existing Development Program is the responsibility of individual Permittees. Each Permittee has several different levels of enforcement to choose from for different types of situations. This includes - from least severe to most severe - issuance of an educational letter, a notice of non-compliance, an administrative compliance order, a cease and desist order, or a misdemeanor/infraction.

The Permittees reported a total of 371 enforcement actions against industrial facilities during the 2004-05 reporting period

- Participate in Training:

To assist municipal staff in implementing the Existing Development Program for industrial and commercial facilities, five training modules were developed:

1. Existing Development Program Management Module (targeting jurisdictional program coordinators and providing guidance regarding management of an inspection program;
2. Field Implementation of Existing Development Program Module (targeting inspectors and providing guidance on conducting inspections);

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3. Existing Development Program Training – Automobile Mechanical Repair, Maintenance, Fueling and Cleaning Businesses Module;
4. Existing Development Program Training – Landscape Maintenance Businesses Module, and
5. Existing Development Program Training – Industrial Stormwater Monitoring Module.

- Conduct Education and Outreach:

A number of education and outreach efforts, conducted under the overall public education element of the Program (see **DAMP Section 6.0**), directly supported implementation of the Model Industrial Commercial Program, specifically:

Mailings – During 2003-05 there was one mass mailing of an outreach letter for corporate environmental managers of food service establishments (FSE) and one mass mailing of education materials to all Orange County FSEs.

Outreach Materials –The following materials were developed by the Public Education Committee supportive of **Section 9.0**:

Brochures

- *Mobile Detailing and the Water Quality Act*
- *Water Quality Guidelines for Exterior Restaurant Cleaning Operations*
- *Water Quality Guidelines for Carpet Cleaning Activities*
- *Help Prevent Ocean Pollution: Tips for Hardscape and Landscape Drains*
- *Help Prevent Ocean Pollution: Tips for Home Improvement*

Posters

- Food/Restaurant Industry
- "Help Prevent Ocean Pollution" Food Facility BMPs Poster
- Auto Repair Industry
- Good Gas Station Operating Practices

"The Quad" - "The Quad" was developed as a tool to communicate with Cities, Businesses, Utilities and Organizations. Each Quad contains a newsletter, press release, fact sheet and billing insert focusing on a seasonal stormwater theme. Four seasonal quads were created during this reporting period, two of which were distributed in this reporting period. The following were the 2004-05 Quad themes:

- "Spring Into Cleaning - Disposal of Household Hazardous Waste"
- "Summer: Yard Care"
- "Fall: Prepare for the Rainy Season"
- "Winter: New Years Resolution - Green in the New Year"

FSE Outreach - The following materials were developed specifically for FSEs.

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- *"Help Prevent Ocean Pollution": A Guide for Food Service Establishments*
- *"Help Prevent Ocean Pollution" Food Facility BMPs Poster*
- *"Help Prevent Ocean Pollution" Food Facility BMPs Stickers*
- Bilingual CD-Rom illustrating appropriate Food Facility BMPs
- Food Facility BMP PowerPoint Presentation
- Food Facility BMP Fact Sheet

Other: Developed an urban nutrient outreach program targeting independent gardeners operating in the San Diego Creek/Newport Bay Watershed with Proposition 13 funding awarded to the County to investigate the sources of nutrients from the urban environment and test the effectiveness of structural and non-structural BMPs.

9.2.2 Model Residential Program

The Model Residential Program was developed and implemented in 2002-03 to further reduce pollutants potentially released into the environment from residential activities, including efforts to reduce over-watering. The main thrust of the residential program is to advocate pollution prevention practices as the most effective method to protect receiving water quality. The Model Residential Program requires the Permittees under the jurisdiction of the San Diego Regional Board to:

- Develop a source identification procedure and prioritize residential areas based on proximity to Environmentally Sensitive Areas (ESAs) within the Permittee's jurisdiction.
- Identify Best Management Practices (BMPs) most appropriate for each area, based on residential activities:

See discussion of Outreach Materials (below).

- Conduct public outreach and education:

A number of education and outreach efforts, conducted under the overall public education element of the Program (see **DAMP Section 6.0**), directly supported implementation of the Model Residential Program, specifically:

Outreach Materials - The following materials were developed by the Public Education Committee supportive of **Section 9.0**:

Brochures

- *Help Prevent Ocean Pollution: Tips for Hardscape and Landscape Drains*
- *Help Prevent Ocean Pollution: Tips for Horse Care*
- *Help Prevent Ocean Pollution: Tips for Using Paint*
- *Help Prevent Ocean Pollution: Tips for Home Improvement*

"The Quad" - "The Quad" was developed as a tool to communicate with

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cities, businesses, utilities and organizations such as home owner associations. Each Quad contains a newsletter, press release, fact sheet and billing insert focusing on a seasonal stormwater theme. Four seasonal quads were created during this reporting period, two of which were distributed in this reporting period. The following were the 2004-05 Quad themes:

- "Spring Into Cleaning - Disposal of Household Hazardous Waste"
- "Summer: Yard Care"
- "Fall: Prepare for the Rainy Season"
- "Winter: New Years Resolution - Green in the New Year"

9.2.3 Other Programs

During the reporting period, the Principal Permittee developed an urban nutrient outreach program targeting residential gardeners operating in the San Diego Creek/Newport Bay Watershed. The outreach program was one element of a Proposition 13 funded investigation of nutrient sources in an urban environment and structural and non-structural BMP effectiveness.

9.3 Assessment

The current and potential Program Effectiveness Assessment Outcome Levels that could be assessed within the current program are summarized in **Table 9-4** (Industrial/Commercial) and **Table 9.5** (Residential).

9.3.1 Model Industrial/Commercial Program

Inventories: Completing the inventory of industrial and commercial facilities has been problematic for some jurisdictions since the Standard Industrial Classification (SIC) codes on the business licenses (the primary source of this information for those jurisdictions with a business license program) have been incorrectly provided by businesses.¹ In addition, inventorying commercial facilities is extremely difficult because they are numerous, often transitory, and can only be identified through site visits. Mobile businesses are particularly problematic because they typically do not have a permanent facility location.

The Unified Annual Progress Reports include tables reporting the total number of commercial and industrial facilities and their respective prioritizations, organized by

¹ The Notice of Intent (NOI) form attached to the Draft Industrial General Permit (February 2005) and the SWRCB's NOI processing system have been modified to accept both Standard Industrial Classification (SIC) codes and North American Industrial Classification System (NAICS) codes. The USEPA has indicated it intends to incorporate the NAICS codes into the storm water regulations but has not yet done so. The Proposed 2006 Multi-Sector General Permits for Stormwater Discharges Associated with Industrial Activity (MSGP) contains a note that "a complete list of SIC Codes (and conversions from the newer North American Industry Classification System [NAICS]) can be obtained from the Internet at www.census.gov/epcd/www/naics.html or in paper form from various locations in the document titled Handbook of Standard Industrial Classifications, Office of Management and Budget, 1987."

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Permittee. However, since the structure and content of the jurisdictional databases can differ between the Permittees, analysis of data on a regional or countywide basis is challenging. Indeed, there appears to be a persistent disparity between the number of industrial and commercial facilities inventoried and the number of industrial and commercial facilities that were prioritized over the reporting period (see **Tables 9.1 through 9.3** and **Figures 9.1 through 9.2**). This disparity points to the need to augment facility descriptions beyond SIC codes.

DAMP Modification:

- Provide more detailed industrial and commercial facility descriptions to assist in inventory standardization.

Prioritization: Commercial and industrial facilities must be classified as high, medium, or low priority to determine the frequency of inspection. The DAMP details a risk and receiving water sensitivity based point system for classification, the result of which is a total score indicating the facility priority. A change in facility prioritization can be indicative of programmatic success, since a finding that BMPs are being implemented (a behavior change) reduces the risk of pollutants being discharged which can result in a change in prioritization. However, both Permits specify mandatory high-priority commercial and industrial facilities. In addition, the San Diego Region Permittees are required to inventory only high-priority commercial facilities i.e. there are no designation of medium and low priority commercial facilities.

Headline Indicator - Prioritization of Facilities (Industrial Facilities): For 2004-05, 2,821 industrial facilities were prioritized, 27% of which were ranked as high priority; for 2003-04, 8,604 industrial facilities were prioritized, 13% of which were ranked as high priority; and for 2002-03, 8,546 industrial facilities were prioritized, 15% of which were ranked as high priority (**Table 9.1; Figure 9.1**).

- Level 1: Implement Program
- Level 3: Behavior Change

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Headline Indicator - Prioritization of Facilities (Commercial Facilities): For 2004-05, 25,411 commercial facilities were prioritized, 20% of which were ranked as high priority; for 2003-04, 23,778 commercial facilities were prioritized, 24% of which were ranked as high priority; and for 2002-03, 22,789 commercial facilities were prioritized, 22% of which were ranked as high priority (Table 9.2; Figure 9.2).

Level 1: Implement Program

Level 3: Behavior Change

The year-to-year comparisons suggest some inconsistent reporting of this indicator. Part of this inconsistency arises from the interpretation of the extent to which a facility "tributary to" a sensitive receiving water, which is a key determinant in prioritization. From the Annual Progress Reports (See DAMP Appendix C), it is evident that "tributary to" is variously being interpreted as more than "next to" but "less than the whole watershed." Also, although the point system is used by many of the Permittees, some perceive it as time-consuming and too subjective, and, as a result, may rely primarily on professional judgment. In addition, the ability of the prioritization process to meaningfully provide for a risk-based approach is also dampened by the requirements for mandatory high priority sites. Despite these reservations, it is possible that the decreased numbers of high priority sites in the most recent annual reporting period may also reflect increased findings of no stormwater exposures and diminished site risk.

ROWD Commitment:

- Develop a more detailed prioritization process to improve standardized reporting and to support re-direction of inspection resources to significant sources of priority constituents of concern

Inspection: The Permittees generally conduct two types of inspections: compliance inspections and follow-up inspections. Should an inspected site demonstrate non-compliance, inspection frequency must be increased as specified in the Permits until compliance is achieved. Although these inspections are generally viewed as beneficial, there is a regulatory agency perception (highlighted in meetings with Regional Board staff) that the inspections may be missing key items of concern and discouraging findings of non-compliance which add to the inspection burden by requiring additional follow-up activity.

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Headline Indicator - Number of BMPs Implemented (Industrial Facilities): For 2004-05, 2,706 industrial facilities were reported to have BMP implementation, 68% of which have full BMP implementation; for 2003-04, 4,029 industrial facilities were reported to have BMP implementation, 59% of which have full BMP implementation; and for 2002-03, 1,026 industrial facilities were reported to have BMP implementation, 53% of which have full BMP implementation (Table 9.6; Figure 9.3).

Level 1: Implement Program

Level 3: Behavior Change

Headline Indicator - Number of BMPs Implemented (Commercial Facilities): For 2004-05, 5,566 commercial facilities were reported to have BMP implementation, 59% of which have full BMP implementation; for 2003-04, 8,484 commercial facilities were reported to have BMP implementation, 77% of which have full BMP implementation; and for 2002-03, 1,389 commercial facilities were reported to have BMP implementation, 63% of which have full BMP implementation (Table 9.7; Figure 9.4).

Level 1: Implement Program

Level 3: Behavior Change

It is also proving difficult for the inspectors to categorize BMP implementation at commercial and industrial sites along a three-point scale (fully, partially, or not implemented) because such a scale requires overly subjective determinations. Lastly, the requirement for follow-up inspections of all non-compliant sites every month is perceived to be excessive due to the already large number of sites in many cities' inventories.

ROWD Commitment:

- Develop effective alternative to re-inspection such as self-certification.

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Headline Indicator - Food Facility Inspections: For the 2004-05 reporting period, 25,078 food facility inspections were conducted and 1,416 were reported to have NPDES issues (Table 9.3). For the 2003-04 reporting period, 12,635 food facility inspections were conducted and 1,298 were reported to have NPDES issues in the six month period of program implementation.

- Level 1: Implement Program
- Level 3: Behavior Change

The 2003-04 comparison suggests that food facility inspections and the associated education and outreach efforts are having a positive impact since the incidence of NPDES issues decreases from 1 in 10 inspections to 1 in 17 inspections .

Enforcement: Permittees are required to use a progressive enforcement approach and initiate enforcement actions where commercial and industrial facilities are found to be out of compliance. In general, specific facilities that are repeat offenders are identified through active database inventories and, in most cases, progressive enforcement is used to bring repeat offenders into compliance.

Headline Indicator - Number and Level of Enforcement Actions (Industrial Facilities): The Permittees reported a total of 371 enforcement actions against industrial facilities during the 2004-05 reporting period, 3,146 during the 2003-04 reporting period, and 533 during the 2002-03 reporting period (Table 9.8). The 2004-05 figure represents an 89% decrease from the total reported in 2003-04.

- Level 1: Implement Program
- Level 3: Behavior Change

Headline Indicator - Number and Level of Enforcement Actions (Commercial Facilities): The Permittees reported a total of 1,192 enforcement actions against commercial facilities during the 2004-05 reporting period, 1,534 during the 2003-04 reporting period, and 490 during the 2002-03 reporting period (Table 9.9). The 2004-05 figure represents a 22% decrease from the total reported in 2003-04.

- Level 1: Implement Program
- Level 3: Behavior Change

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The 2003-04 comparison suggests some inconsistent reporting (e.g. Newport Beach, which compiled enforcement activity data in 2004-05 Unified Report, Section 2.10.0). However, the consistent pattern of reduced enforcement activity in the most recent reporting period across the Construction, Existing Development, and Illegal Discharges/Illicit Connections areas of the Program also suggests an increased level of compliance, also viewed as behavior change, by the regulated community.

Training: The Permits require that staff is adequately trained. In response, the Permittees developed several training modules, which are provided annually throughout the year. The training that has taken place has been deemed helpful. However, the training modules need to be updated frequently enough to keep pace with the developments in the field of stormwater management, maintain staff interest, and to provide inspectors with a technical understanding of a broad array of BMPs that can be shared with facility owner/operators.

ROWD Commitment:

- Prepare defined expertise and competencies for authorized inspector positions and develop a training schedule to meet these requirements

9.3.2 Model Residential Program

The Residential Model Program was developed to fulfill the residential activity and related commitments and requirements of Section F.3.d of the SDR Permit. The Common Interest Areas/Homeowners Associations (CIA/HOA) Activities Program was developed to fulfill the existing CIA/HOA activity commitments and requirements of Section F.6 of the SDR Permit.

Identification and Inventory: The SDR Permittees are required to identify high priority areas and activities as defined in the Permit. CIAs are considered to include high-priority areas and activities.

BMP Implementation: The SDR Permittees are required to identify minimum BMPs for high-priority areas and activities and, as necessary, additional controls. Some Permittees use a baseline BMP implementation approach for Residential areas and CIAs/HOAs unless inspectors notice a specific concern.

Enforcement and Reporting: SDR Permittees are required to enforce their stormwater ordinances for all residential areas and activities as necessary to maintain Permit compliance. The primary issue with residential areas and CIAs/HOAs concerns over irrigation. Enforcement actions taken against CIAs/HOAs include letters or notices, which generally leads to resolution of the issues. Some Permittees have reported some limited success using self certifications as a tool for effective implementation of the program within residential and CIA/HOA areas.

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9.4 Summary

The Third Term Permits have required the Permittees to develop and implement a formal inspection program commencing with an initial inventory of potentially 30,000 facilities being subject to municipal oversight for stormwater and urban runoff issues. Over the first three years of this effort, there has been a clear trend in the level of inspection and enforcement activity that, despite some uncertainties with respect to reporting, suggests increased BMP implementation and compliance with local water quality ordinances by the existing industrial and commercial sector in Orange County. Based upon perceived positive outcomes of the Existing Development elements of the DAMP, the Permittees are proposing minor program modifications based upon the need for the continued training of inspectors and the sensitizing of the prioritization and inspection process toward a more effective risk-based approach.

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Table 9.1: Countywide Permittees' Industrial Inventory and Prioritization, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEE	HIGH		MEDIUM		LOW		LOW		LOW		TOTAL		TOTAL		TOTAL	
	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04
Aliso Viejo	2	2	2	2	65	65	0	0	0	0	0	67	67	67	67	44
Anaheim	129	115	93	0	419	45	868	1,126	299	1,416	1,286	1,416	1,286	392		
Brea	11	14	13	27	32	28	167	137	111	210	179	210	179	151		
Buena Park	24	184	115	17	52	18	0	17	27	76	219	76	219	159		
Costa Mesa	489	287	13	2	329	475	0	40	128	818	802	818	802	143		
Cypress	2	4	0	0	5	2	34	38	0	41	44	41	44	0		
Dana Point	NA	0	0	0	NA	0	NA	0	0	NA	0	NA	0	0		
Fountain Valley	4	44	4	48	0	0	32	0	0	36	44	36	44	52		
Fullerton	36	38	37	0	23	23	554	344	0	613	405	613	405	37		
Garden Grove	25	41	30	11	35	51	310	296	25	370	388	370	388	66		
Huntington Beach	30	25	30	13	38	69	645	529	23	713	623	713	623	66		
Irvine	236	3	95	0	98	21	841	520	0	1,175	544	1,175	544	95		
La Habra	NA	65	65	48	NA	249	NA	228	59	NA	542	NA	542	172		
La Palma	8	5	5	5	2	3	9	11	0	19	19	19	19	10		
Laguna Beach	0	0	0	0	28	23	35	14	0	63	37	63	37	0		
Laguna Hills	NA	1	0	0	NA	0	NA	0	0	NA	1	NA	1	0		
Laguna Niguel	2	1	0	0	0	0	0	0	0	2	1	2	1	0		
Laguna Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Lake Forest	11	11	12	0	0	0	0	0	0	11	11	11	11	12		
Los Alamitos	6	7	1	27	71	19	24	96	23	101	122	101	122	51		
Mission Viejo	5	4	4	0	30	31	56	56	0	91	91	91	91	4		
Newport Beach	2	2	2	0	0	0	11	11	11	13	13	13	13	13		
Orange	69	52	72	228	422	416	256	249	0	747	717	747	717	300		
Placentia	21	16	12	0	18	0	6	109	40	45	125	45	125	52		
R S Margarita	1	1	3	10	10	10	19	19	19	30	30	30	30	32		
San Clemente	2	3	2	72	72	72	0	0	0	74	75	74	75	2		
S J Capistrano	1	1	1	5	11	5	15	8	4	27	14	27	14	10		
Santa Ana	102	100	82	615	1,266	1,031	0	574	5	1,368	1,705	1,368	1,705	702		
Seal Beach	2	2	2	0	0	0	0	0	0	2	2	2	2	2		
Stanton	NA	18	18	15	NA	17	NA	118	0	NA	153	NA	153	33		
Tustin	9	11	13	7	59	6	0	49	55	68	66	68	66	75		
Villa Park	NA	0	0	0	NA	0	NA	0	0	NA	0	NA	0	0		
Westminster	10	4	4	18	37	18	34	6	6	81	28	81	28	28		
Yorba Linda	29	4	7	88	214	206	0	13	2	243	223	243	223	97		
County of Orange	13	16	12	9	13	12	0	0	0	26	28	26	28	21		
TOTALS	1,281	1,081	749	1,235	3,349	2,915	3,916	4,608	837	8,546	8,604	8,546	8,604	2,821		

NA = Not Available

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Table 9.2: Countywide Permittees' Commercial Inventory and Prioritization, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEE	HIGH			MEDIUM			LOW			TOTAL		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Aliso Viejo	153	153	110	0	0	0	0	0	0	153	153	110
Anaheim	114	14	13	278	310	310	194	307	307	586	631	630
Brea	0	0	0	138	117	129	0	180	228	138	297	357
Buena Park	0	119	283	5	40	20	0	50	26	5	209	329
Costa Mesa	1,306	1,107	969	587	555	483	4,559	2,548	2,083	6,452	4,210	3,535
Cypress	0	56	2	38	162	19	39	6	203	77	224	224
Dana Point	238	205	228	0	0	0	0	0	0	238	205	228
Fountain Valley	0	112	40	0	0	77	314	139	139	314	251	256
Fullerton	7	7	126	23	23	164	639	631	116	669	661	406
Garden Grove	0	7	47	102	90	204	5,797	5,807	5,587	5,899	5,904	5,838
Huntington Beach	403	261	276	7	170	206	233	920	831	643	1,351	1,313
Irvine	0	0	0	105	103	148	1,040	1,038	1,132	1,145	1,141	1,280
La Habra	NA	378	414	NA	340	306	NA	177	254	NA	895	974
La Palma	0	0	0	17	18	12	25	30	31	42	48	43
Laguna Beach	336	356	0	0	2	0	0	7	0	336	365	0
Laguna Hills	NA	237	325	NA	0	0	NA	0	0	NA	237	325
Laguna Niguel	182	183	177	0	0	0	0	0	0	182	183	177
Laguna Woods	28	24	24	3	3	3	65	83	89	96	110	116
Lake Forest	10	124	150	17	68	0	50	182	0	77	374	150
Los Alamitos	NA	98	0	173	32	0	800	0	0	973	130	0
Mission Viejo	426	423	484	0	0	0	0	0	0	426	423	484
Newport Beach	41	41	41	40	40	40	40	40	42	121	121	123
Orange	269	0	0	241	311	311	54	700	725	564	1,011	1,036
Placentia	127	375	0	44	0	0	310	0	373	481	375	373
R S Margarita	126	146	141	13	0	0	377	0	438	516	146	579
San Clemente	463	688	626	0	0	0	0	0	0	463	688	626
S J Capistrano	248	316	216	0	0	277	0	0	1,401	248	316	1,894
Santa Ana	0	0	0	779	26	26	1	917	923	780	943	949
Seal Beach	NA	0	23	NA	183	2	NA	0	859	NA	183	884
Stanton	NA	31	31	NA	168	168	NA	476	476	NA	675	675
Tustin	1	0	1	103	104	39	0	0	40	104	104	80
Villa Park	0	0	0	0	1	1	0	6	6	0	7	7
Westminster	354	140	213	95	365	443	278	354	428	727	859	1,084
Yorba Linda	20	25	42	171	162	126	0	6	5	191	193	173
County of Orange	97	107	106	46	48	47	0	0	0	143	155	153
TOTALS	4,949	5,733	5,108	3,025	3,441	3,561	14,815	14,604	16,742	22,789	23,778	25,411

NA = Not Available

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.3: Food Facility Inspections 2003-04 and 2004-05

PERMITTEE	2003-04		2004-05	
	No. of Routine Inspections	No. of NPDES Issues	No. of Routine Inspections	No. of NPDES Issues
Aliso Viejo	116	50	218	37
Anaheim	1721	40	3,285	22
Brea	256	19	506	23
Buena Park	301	91	686	12
Costa Mesa	724	98	1,412	74
Cypress	175	12	421	0
Dana Point	186	9	374	12
Fountain Valley	313	72	545	22
Fullerton	539	46	1,054	123
Garden Grove	738	2	1,412	280
Huntington Beach	691	64	1,420	17
Irvine	718	169	1,388	52
La Habra	273	11	548	40
La Palma	42	18	118	1
Laguna Beach	203	7	382	31
Laguna Hills	149	91	332	72
Laguna Niguel	193	21	406	16
Laguna Woods	24	18	59	13
Lake Forest	307	8	547	27
Los Alamitos	98	12	193	8
Mission Viejo	325	51	591	40
Newport Beach	501	33	1,037	20
Orange	725	25	1,451	61
Placentia	185	8	386	18
Rancho Santa Margarita	95	0	179	23
San Clemente	284	5	529	7
San Juan Capistrano	1261	111	302	17
Santa Ana	141	28	2,436	145
Seal Beach	122	13	217	3
Stanton	168	20	504	1
Tustin	377	12	648	60
Villa Park	18	1	26	1
Westminster	418	123	931	96
Yorba Linda	139	4	328	23
County of Orange	109	6	207	19
Totals	12635	1298	25,078	1,416

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.4: Current and Potential Outcome Levels (Industrial/Commercial)

Industrial/Commercial Program Component	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Inventory	✓ Maintain inventory					
Prioritization	✓ Assign priorities		✓ Change in prioritization level			
Inspection	✓ Conduct and Track number of inspections		✓ # BMPs implement	P Load reduction associated with BMPs		
Enforcement/ Reporting	✓ Conduct enforcement		✓ Extent and correction of problem level of enforcement			
Training	✓ Track number/type of training sessions	P Surveys show improved knowledge				
Key: ✓ = Currently Achieved Outcome Level P = Potentially Achievable Outcome Level						

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.5: Current and Potential Outcome Levels (Residential)

Residential & CIA/HOA Program Component	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Identification/Inventory	✓ Maintain inventory					
BMP Implementation	✓ Conduct Inspections	✓ BMP Implementation	✓ Track number of BMPs implemented	P Load reduction associated with BMPs		
Enforcement/ Reporting	✓ Issue EAs	✓ Track number of EAs issued & response	P Correction of problem			

Key:
 ✓ = Currently Achieved Outcome Level
 P = Potentially Achievable Outcome Level

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.6: Industrial Inventory and BMP Implementation, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEE	NUMBER OF FACILITIES WITH BMPs:												
	FULLY Implemented 2002-03	FULLY Implemented 2003-04	FULLY Implemented 2004-05	PARTIALLY Implemented 2002-03	PARTIALLY Implemented 2003-04	PARTIALLY Implemented 2004-05	NO BMPs Implemented 2002-03	NO BMPs Implemented 2003-04	NO BMPs Implemented 2004-05	Modify/Upgrade or Implement BMPs 2002-03*	TOTAL 2002-03	TOTAL 2003-04	TOTAL 2004-05
Aliso Viejo	2	49	31	1	15	11	0	0	0	1	4	64	42
Anaheim	0	160	312	0	82	80	0	0	0	0	0	242	392
Brea	NA	NA	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	25
Buena Park	NA	188	151	NA	33	102	NA	0	29	NA	NA	221	282
Costa Mesa	142	530	115	0	168	28	0	0	193	335	698	143	NA
Cypress	NA	0	NA	NA	4	NA	NA	0	NA	0	4	4	NA
Dana Point	NA	0	NA	NA	0	NA	NA	0	NA	0	0	0	NA
Fountain Valley	10	36	52	5	8	NA	5	0	5	25	44	52	NA
Fullerton	36	38	34	NA	23	2	NA	344	NA	36	405	36	NA
Garden Grove	NA	55	28	NA	43	38	NA	3	1	NA	101	67	NA
Huntington Bch	3	52	14	4	19	20	17	28	33	28	99	67	NA
Irvine	136	132	37	31	467	58	12	68	26	205	667	95	NA
La Habra	NA	8	49	NA	57	108	NA	28	15	NA	93	172	NA
La Palma	0	NA	1	0	NA	6	0	NA	1	0	NA	8	NA
Laguna Beach	NA	21	NA	NA	16	NA	NA	0	NA	NA	37	0	NA
Laguna Hills	NA	NA	0	NA	NA	0	NA	NA	0	NA	NA	0	NA
Laguna Niguel	3	0	0	0	0	0	0	0	0	3	0	0	0
Laguna Woods	NA	0	NA	NA	0	NA	NA	0	NA	0	0	0	NA
Lake Forest	0	0	12	11	11	NA	0	0	0	11	11	11	12
Los Alamitos	NA	8	NA	NA	0	NA	NA	0	NA	0	8	0	0
Mission Viejo	24	0	2	43	4	2	13	0	56	136	4	4	NA
Newport Beach	4	1	1	0	1	2	0	0	0	4	2	3	NA
Orange	NA	64	142	NA	2	149	NA	0	9	NA	66	300	NA
Placentia	16	0	3	14	19	7	12	2	1	56	21	11	NA
R S Margarita	0	0	2	0	0	2	0	0	28	0	0	0	32
San Clemente	NA	NA	2	NA	NA	0	NA	NA	0	NA	NA	2	NA
S J Capistrano	1	10	8	2	4	2	0	0	0	4	14	10	NA
Santa Ana	NA	818	639	NA	132	63	NA	0	NA	NA	950	702	NA
Seal Beach	NA	0	1	NA	2	1	NA	0	0	NA	2	2	NA
Stanton	NA	28	28	NA	4	58	NA	1	1	NA	33	87	NA
Tustin	NA	17	17	NA	49	NA	NA	0	NA	NA	66	17	NA
Villa Park	0	0	0	1	0	0	0	0	0	1	0	0	0
Westminster	1	24	25	0	3	3	0	1	0	1	28	28	NA
Yorba Linda	166	130	94	0	0	3	1	0	1	168	130	97	NA
County of Orange	NA	19	16	NA	0	2	NA	0	NA	0	19	18	NA
TOTALS	544	2,388	1,831	112	1,166	747	60	475	128	301	1,017	4,029	2,706

NA = Not Available

* Modifications/Upgrades only applicable to 2002-03 reporting year.

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.7: Commercial Inventory and BMP Implementation, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEE	Number of Facilities with BMPs:											
	FULLY Implemented 2002-03	FULLY Implemented 2003-04	FULLY Implemented 2004-05	PARTIALLY Implemented 2002-03	PARTIALLY Implemented 2003-04	PARTIALLY Implemented 2004-05	NO BMPs Implemented 2002-03	NO BMPs Implemented 2003-04	NO BMPs Implemented 2004-05	TOTAL 2002-03	TOTAL 2003-04	TOTAL 2004-05
Aliso Viejo	69	35	35	4	64	75	8	4		81	103	110
Anaheim	0	35	46	0	2	27	0	0		0	37	73
Brea	NA	0	0	NA	0	0	NA	0	0	NA	0	0
Buena Park	0	183	98	5	29	60	0	0	43	5	212	201
Costa Mesa	623	3,298	64	0	665	2	0	0		623	3,963	66
Cypress	NA	0		NA	2	2	NA	0		0	2	2
Dana Point	NA	NA	25	NA	NA	145	NA	NA	11	NA	NA	181
Fountain Valley	0	251	225	0	0		0	0		0	251	225
Fullerton	NA	0		NA	0		NA	0		NA	0	0
Garden Grove	NA	66	824	NA	29	455	NA	3	4	NA	98	1,283
Huntington Bch	9	59	26	2	108	21	11	120	34	22	287	81
Irvine	NA	DNR		NA	DNR		NA	DNR		NA	DNR	0
La Habra	NA	28	85	NA	107	111	NA	36	77	NA	171	273
La Palma	0	24	22	0	18	13	0	0		0	42	35
Laguna Beach	NA	NA		NA	NA		NA	NA		NA	NA	0
Laguna Hills	31	150	222	0	0		3	10	5	34	160	227
Laguna Niguel	0	123	27	0	15	18	0	0		0	138	45
Laguna Woods	NA	0		NA	27	28	NA	0		0	27	28
Lake Forest	0	0		77	48	19	0	0		77	48	19
Los Alamitos	NA	86		NA	12		NA	0		0	98	0
Mission Viejo	68	164	268	314	51	29	57	0		439	215	297
Newport Beach	NA	NA	6	NA	NA	6	NA	NA		NA	NA	12
Orange	NA	207	0	NA	0	0	NA	0	0	NA	207	0
Placentia	NA	0	32	9	63	32	NA	0		9	63	64
R S Margarita	0	0	64	0	0	21	0	0	482	0	0	567
San Clemente	NA	139	NA	NA	12	NA	NA	0	NA	NA	151	NA
Santa Ana	NA	818	304	NA	132	109	NA	0		NA	950	413
S J Capistrano	75	139	132	7	12	0	15	0	0	97	151	132
Seal Beach	NA	0	0	NA	122	0	NA	0	0	NA	122	0
Stanton	NA	35	35	NA	10	10	NA	3	10	NA	48	55
Tustin	NA	0	0	NA	0	NA	NA	0	NA	NA	0	NA
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	0	633	675	0	219	409	0	7		0	859	1,084
Yorba Linda	NA	10	27	NA	27	7	NA	0		NA	37	34
County of Orange	2	41	49	NA	3	10	NA	NA	0	2	44	59
TOTALS	877	6,524	3,291	418	1,777	1,609	94	183	666	1,389	8,484	5,566

NA = Not Available
DNR = Did Not Report

SECTION 9.0, EXISTING DEVELOPMENT

Table 9.8: Permittee Enforcement Actions for Industrial Facilities, Comparison of 2002-03, 2003-04 and 2004-05

PERMITTEE	EL		EL		NON		NON		ACO		ACO		CDO		CDO		M/I		M/I		TOTAL		TOTAL	
	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05
Aliso Viejo	0	2	3	17	0	1	1	17	0	0	8	0	0	0	0	0	0	0	0	0	0	3	28	
Anaheim	NA	0	0	0	NA	2	0	0	NA	1	0	0	0	0	0	0	0	0	0	0	NA	3	0	
Brea	2	0	13	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	14	
Buena Park	NA	0	2	6	NA	39	6	6	NA	5	13	NA	1	4	NA	0	0	1	0	NA	45	26		
Costa Mesa	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	
Cypress	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	
Dana Point	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	NA	0	0	
Fountain Valley	5	393	52	8	0	8	1	1	0	12	1	0	6	1	0	0	0	0	0	5	419	54		
Fullerton	36	5	2	0	0	0	0	0	0	0	NA	0	0	NA	0	0	0	0	0	36	0	NA		
Garden Grove	2	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	2		
Huntington Beach	6	0	0	5	0	0	5	5	0	15	0	0	0	0	0	0	0	0	0	6	15	6		
Irvine	NA	939	95	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	939	95		
La Habra	NA	0	10	28	NA	0	28	28	NA	0	0	0	0	0	0	0	0	0	0	NA	0	28		
La Palma	0	19	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	19	11		
Laguna Beach	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	0	0		
Laguna Hills	NA	NA	0	0	NA	NA	0	0	NA	NA	0	0	0	0	0	0	0	0	0	NA	NA	0		
Laguna Niguel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Laguna Woods	0	0	NA	0	0	0	0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0		
Lake Forest	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0		
Los Alamitos	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	0	0		
Mission Viejo^	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	0	0		
Newport Beach	6	8	2	0	250	618	0	0	200	315	0	0	0	0	0	0	0	0	0	456	1491	2		
Orange	NA	66	0	1	NA	4	1	1	NA	0	0	0	0	0	0	0	0	0	0	NA	70	1		
Placentia	7	7	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	10		
R S Margarita	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
San Clemente	NA	7	0	0	NA	2	0	0	NA	2	0	0	0	0	0	0	0	0	0	NA	11	0		
S J Capistrano	1	14	10	1	1	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	14	12		
Santa Ana	NA	0	1	2	NA	0	2	2	NA	0	0	0	0	0	0	0	0	0	0	NA	0	3		
Seal Beach	NA	NA	5	0	NA	NA	0	0	NA	NA	0	0	0	0	0	0	0	0	0	NA	NA	5		
Stanton	DNR	NA	NA	0	NA	NA	0	0	NA	NA	0	0	0	0	0	0	0	0	0	NA	NA	0		
Tustin	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	0	0		
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Westminster	0	0	9	5	5	0	4	4	0	0	0	0	0	0	0	0	0	0	0	5	5	13		
Yorba Linda	0	0	59	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	59		
County of Orange	NA	0	0	0	NA	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	NA	0	0		
TOTALS	76	1,460	275	257	779	66	66	66	200	350	22	0	7	6	0	0	0	550	2	533	3,151	371		

EL = Educational Letter ACO = Administrative Compliance Order M/I = Misdemeanor/Infraction

DNR = Did Not Report NON = Notice of Non-Compliance CDO = Cease and Desist Order

^ Enforcement actions against industrial facilities are included with commercial facilities.

SECTION 9.0, EXISTING DEVELOPMENT

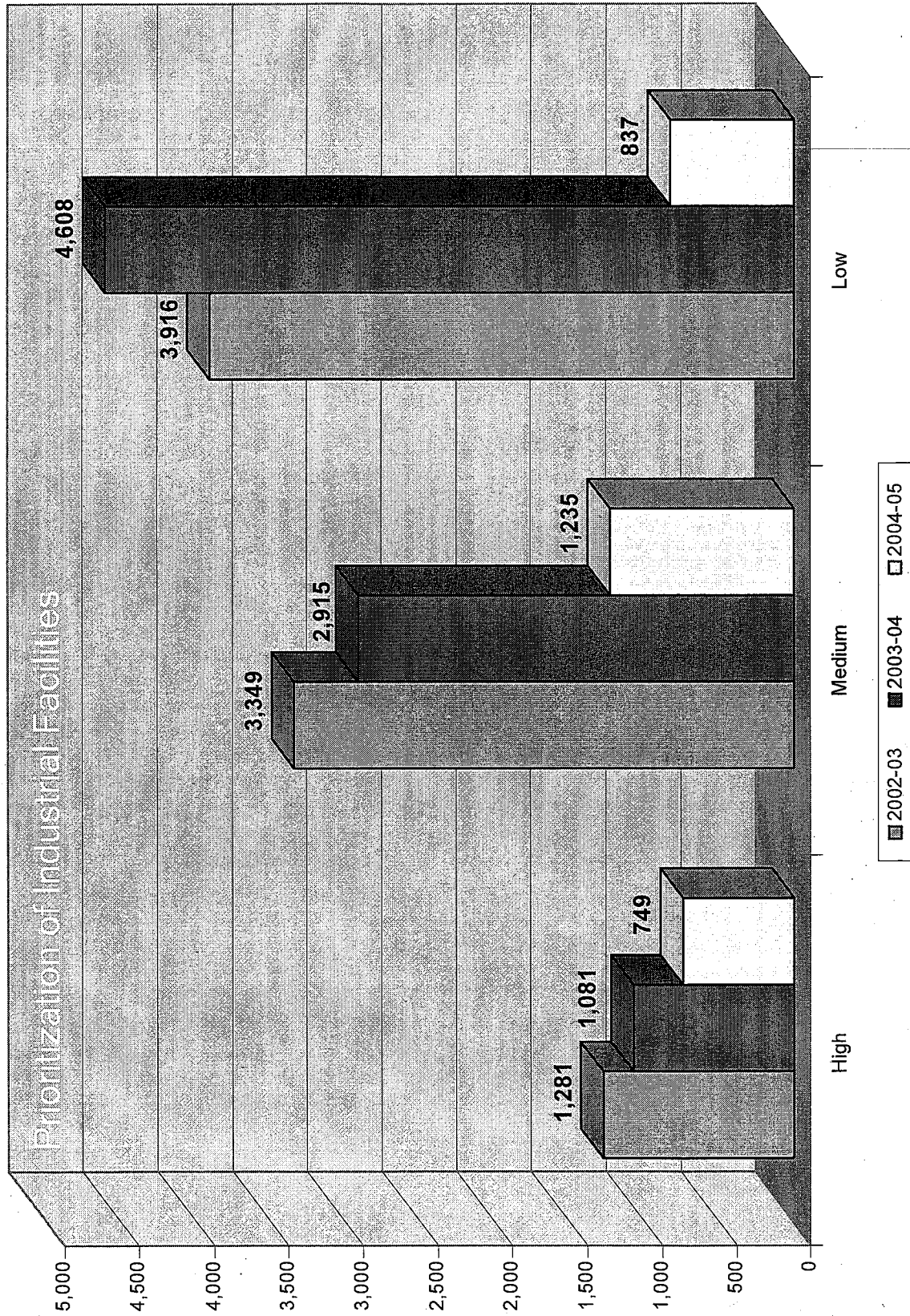
Table 9.9: Permittee Enforcement Actions for Commercial Facilities, Comparison of 2002-03, 2003-04, and 2004-05

PERMITTEE	EL		EL		NON		NON		ACO		CDO		M/I		TOTAL	
	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2003-04	2004-05
Aliso Viejo	70	3	0	4	0	0	0	4	2	13	2	0	0	0	0	13
Anaheim	NA	0	NA	0	NA	0	0	0	NA	0	0	NA	0	0	0	0
Brea	NA	4	NA	3	NA	1	0	0	NA	0	0	NA	0	0	0	3
Buena Park	5	0	0	16	0	87	16	33	0	19	33	0	4	16	110	69
Costa Mesa	2	10	3	6	3	3	67	0	0	10	0	0	0	0	23	73
Cypress	2	0	4	2	4	2	0	0	0	0	0	0	0	0	2	0
Dana Point	13	14	41	57	6	19	3	1	1	0	1	0	0	1	33	62
Fountain Valley	6	251	6	256	6	2	4	7	21	3	7	5	1	2	257	269
Fullerton	NA	0	NA	0	NA	0	NA	NA	NA	0	NA	NA	0	NA	0	NA
Garden Grove	5	37	2	5	2	8	1	0	0	0	0	0	0	0	45	6
Huntington Beach	16	0	3	10	3	10	13	0	0	80	0	1	0	0	90	18
Irvine	NA	NA	NA	NA	NA	NA	25	1	NA	NA	1	NA	NA	NA	NA	0
La Habra	NA	0	NA	0	NA	0	0	0	NA	0	0	0	0	0	0	0
La Palma	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	15
Laguna Beach	NA	0	NA	0	NA	0	0	0	NA	0	2	NA	0	0	0	2
Laguna Hills	NA	11	NA	6	NA	9	4	0	NA	1	0	NA	0	0	10	0
Laguna Niguel	0	127	1	32	1	15	32	0	0	0	0	0	0	1	142	32
Laguna Woods	3	0	4	18	4	0	18	10	1	0	10	0	0	0	8	43
Lake Forest	77	1	1	12	1	14	12	0	0	0	0	0	0	1	15	13
Los Alamitos	NA	0	NA	0	NA	0	0	0	NA	0	0	NA	0	0	0	0
Mission Viejo	118	0	20	16	20	103	16	17	0	0	17	1	0	0	103	37
Newport Beach	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
Orange	NA	269	0	0	NA	13	0	0	NA	0	0	NA	0	0	283	0
Placentia	10	30	0	64	0	0	13	1	1	0	1	2	0	0	30	80
R S Margarita	10	0	0	32	0	0	7	0	0	0	0	0	0	0	10	39
San Clemente	NA	187	NA	91	NA	82	63	15	NA	15	0	NA	2	NA	293	178
S J Capistrano	25	10	7	150	7	2	5	0	0	0	0	0	0	0	12	155
Santa Ana	NA	0	NA	1	NA	3	18	0	NA	0	1	NA	0	0	3	20
Seal Beach	NA	0	NA	0	NA	0	0	0	NA	0	0	NA	0	0	0	0
Stanton	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	0
Tustin	NA	0	NA	0	NA	0	0	0	NA	0	0	NA	0	0	0	0
Villa Park	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Westminster	0	0	0	2	0	2	3	0	0	0	0	0	0	0	2	5
Yorba Linda	0	45	0	19	0	1	0	0	0	0	0	0	0	0	46	19
County of Orange	NA	0	NA	0	NA	4	3	0	NA	0	0	NA	0	0	4	3
TOTALS	362	999	92	730	380	380	327	26	141	75	9	7	22	1	1,534	1,192

NA = Not Available
 EL = Educational Letter
 NON = Notice of Non-Compliance
 ACO = Administrative Compliance Order
 CDO = Cease and Desist Order
 M/I = Misdemeanor/Infraction

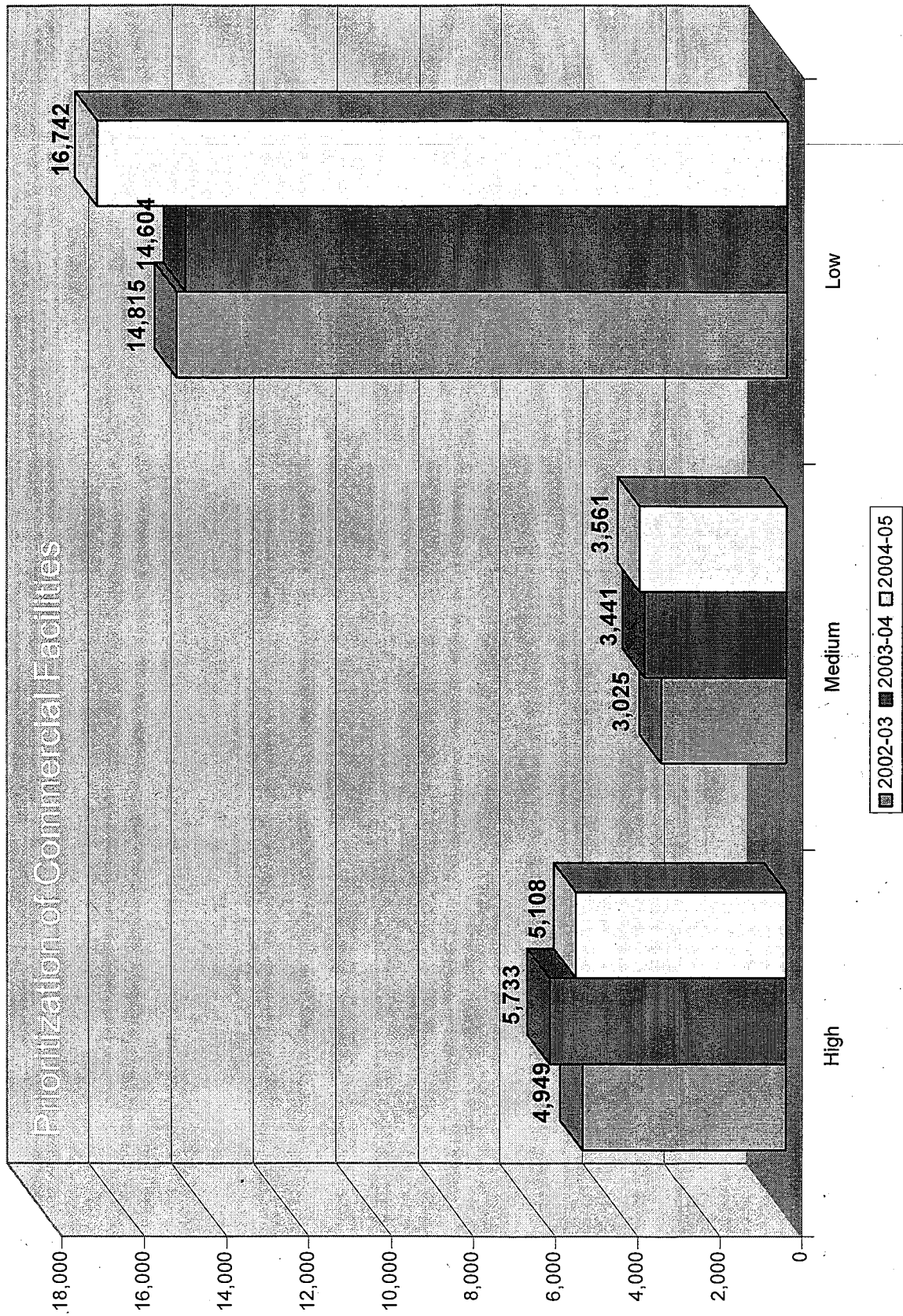
SECTION 9.0, EXISTING DEVELOPMENT

Figure 9.1: Countywide Permittees' Industrial Inventory and Prioritization, Comparison of 2002-03, 2003-04 and 2004-05



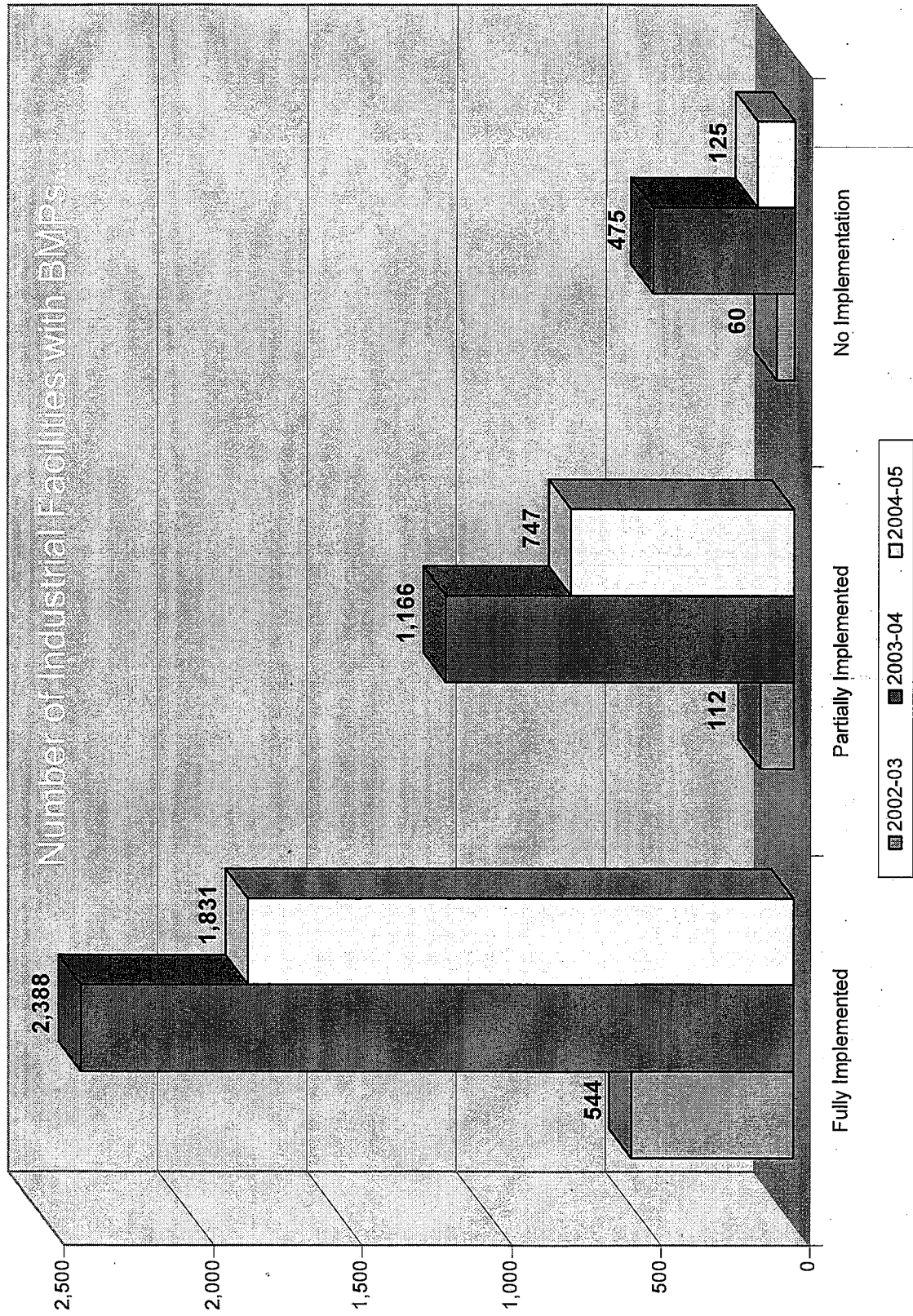
SECTION 9.0, EXISTING DEVELOPMENT

Figure 9.2: Countywide Permittees' Commercial Inventory and Prioritization, Comparison of 2002-03, 2003-04 and 2004-05



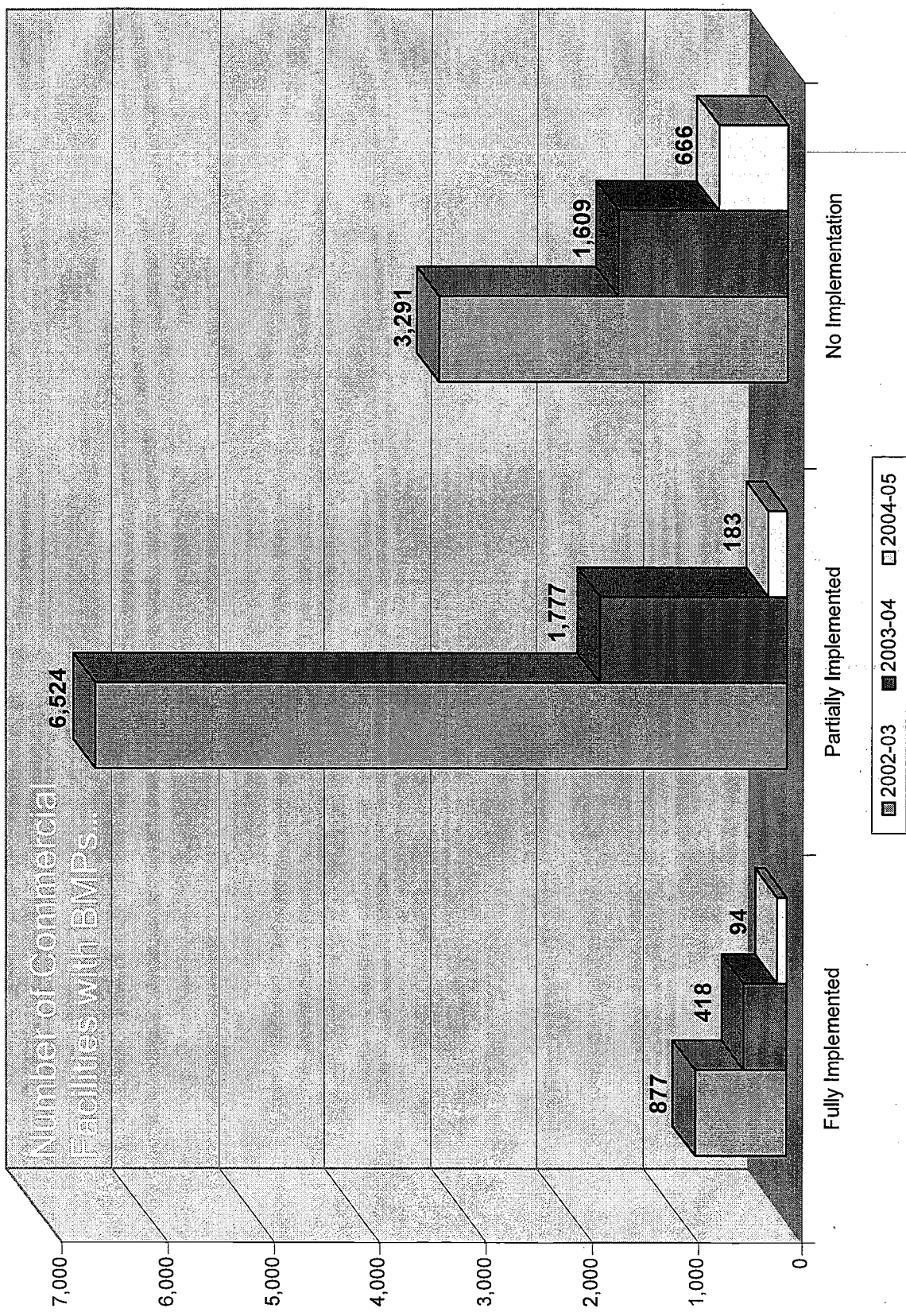
SECTION 9.0, EXISTING DEVELOPMENT

Figure 9.3: Industrial Inventory and BMP Implementation, Comparison of 2002-03, 2003-04 and 2004-05



SECTION 9.0, EXISTING DEVELOPMENT

Figure 9.4: Commercial Inventory and BMP Implementation, Comparison of 2002-03, 2003-04 and 2004-05



SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

10.0 ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

10.1 Introduction

Illegal discharges/illicit connections (ID/IC) are potential sources of pollutants within municipal storm drain systems. The purpose of **DAMP Section 10.0** is to ensure that the Permittees have a programmatic framework for detecting and quickly responding to non-stormwater discharges to their storm drain systems. Since **DAMP Section 10.0** directly addresses one of the basic objectives of the NPDES Permits, it is a long-established part of the Program. With the Third Term Permits, the key elements of ID/IC have been significantly enhanced. In addition, a model sewage spill response program has been developed and has begun to be implemented in conjunction with OCSD.

10.2 Accomplishments

10.2.1 Illegal Discharges/Illicit Connections Program

The ID/IC Program provides guidance for Permittees when identifying, responding to and mitigating the effects of non-stormwater discharges and enforcing the ID/IC component of the Program for the protection of the environment. **DAMP Section 10.0** requires the Permittees to:

- Detect illegal discharges and illicit connections

A innovative Dry Weather Reconnaissance Program, based upon statistically derived benchmarks, was developed and implemented in both permit regions specifically to identify illegal discharges and illicit connections during the typically dry summer months of May through September using a suite of water quality analyses conducted in the field at designated random and targeted drains. The 2004-05 reporting period marked the third season of dry weather monitoring in the San Diego Region. With the approval of the Santa Ana Monitoring Program in July of 2005 by the Executive Officer of the Santa Ana Regional Board, dry weather monitoring in the Santa Ana Region commenced in May of 2006.

- Facilitate Public Reporting

Telephone and web-based reporting systems for the general public have been established and are advertised in the Stormwater Program's public education materials, Orange County "White Pages" telephone directories, and Permittee websites. A total of 3,408 complaints were received during the 2004-05 reporting period.

- Investigate

Each Permittee has designated Authorized Inspectors to investigate compliance with, detect violations of, and take actions pursuant to their Water Quality

SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

Ordinance. During the 2004-05 reporting period, the Permittees encountered and sought to mitigate discharges involving hydrocarbons (296 incidents), inorganic materials (264 incidents), metals (6 incidents), nutrients (43 incidents), 73 organic materials (73 incidents), discharge exceptions (133 incidents), pathogens (156 incidents), wastewater (624 incidents), pesticides (2 incidents), sediment (680 incidents), trash and debris (376 incidents), and 716 incidents involving miscellaneous types of materials for a total 3,369 incidents.

- Enforce

Enforcement actions are undertaken according to the adopted Water Quality Ordinances and accompanying Enforcement Consistency Guide. The Permittees reported a total of 3,528 enforcement actions, associated with ID/IC investigations during the 2004-05 reporting period.

- Undertake Training

To assist responsible municipal staff in understanding the Illegal Discharges/Illicit Connections Program, 10 training modules have been developed:

- 1) Program Management Training - Introductory
- 2) Program Management Training - Experienced
- 3) Authorized Inspector Training¹
- 4) Authorized Inspector Training - Introductory
- 5) Authorized Inspector - Field Implementation
- 6) Sewage Spill Response Training
- 7) Sewage Spill Response Training - Introductory
- 8) "Hands-On" Sewage Spill Response Training - Experienced
- 9) Fire Department Activities Training
- 10) Investigative Guidance Manual Training

In addition to the training modules, the Inspection Sub-Committee also provided training on various subjects relevant to the ID/IC program. This sub-committee meets bi-monthly to provide training to municipal inspectors and Authorized Inspectors in issues related to spill response, inspection and enforcement. In addition, this meeting serves as a forum for the coordination and discussion of ongoing difficult or new enforcement, investigation, or enforcement issues and to profile cases or incidents.

10.2.2 Model Sewage Spill Response Procedures

During the Third Permit term, the County and OCS D developed and implemented a coordinated sewage spill prevention and response demonstration project (The "Tustin

¹ This module was modified in the 2004-05 reporting period and divided into two modules, 1) Introductory and 2) Field Implementation.

SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

Area Spill Control (TASC) Demonstration Project"). The TASC includes: 1) Development of sanitary sewer overflow (SSO) response procedures; 2) Selection of primary and backup sewage spill response contractors for containment and recovery of SSOs; and 3) SSO hands-on field response training for Permittee staff and municipal sewerage agency staff.

The TASC model program is currently in use in a limited portion of the County, however; one of the goals for TASC is to gradually phase the implementation of the project throughout the County so that the proactive interagency planning and coordination for sewage spill response can be implemented and/or improved in other watersheds

10.3 Assessment

The current and potential Program Effectiveness Assessment Outcome Levels that could be assessed within the current program are summarized in **Table 10-1**.

10.3.1 Illegal Discharges/Illicit Connections Program

Detection: The San Diego Dry Weather Monitoring Program has been conducted over 3 summers. Over this period there have been 585 site visits to 67 locations comprising 3 visits to the random sites and five visits to the targeted sites each season. Investigations, prompted by findings of elevated contaminant concentrations, were triggered on 18 occasions. These results show that approximately 25% of the 67 monitoring sites have exhibited evidence of contamination in dry weather flow at levels significantly above background levels.

The approval of the Santa Ana Monitoring Program (including the Dry Weather Reconnaissance Program) in July of 2005 by the Executive Officer of the Santa Ana Regional Board meant that the dry weather monitoring in the Santa Ana Region commenced in May of 2006. The 2006-07 Unified Report will present the first opportunity to review the effectiveness of this monitoring effort through comparison of the North and South County efforts.

Reporting: RWQCB staff have acknowledged that the Permittees' field inspectors are trained to detect illegal discharges as part of their daily activities and, indeed, the majority of illegal discharges are detected by Permittee staff. The RWQCB staff also has noted that most Permittees have hotline numbers to receive water pollution complaints and incident information from the public and use database software to document the reported incidents which assists with the tracking of water pollution complaints by source. These RWQCB staff findings point to the overall robustness of the Permittees' efforts to facilitate reporting.

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Headline Indicator - Number of Complaints: The Permittees reported a total of 3,408 complaints/incidents during the 2004-05 reporting period. This total represents an 11% decrease from 2003-04 (3,837 complaints), and a 110% increase from 2002-03 (1,621 complaints) (Table 10.2; Figure 10.1).

Level 1: Implement Program

Level 3: Behavior Change

While the year-to-year comparison suggests some inconsistent reporting of this indicator, the overall pattern of a peak in the 2003-4 period (which is reproduced across other metrics) tends to suggest the positive impact of the Program (i.e. that there has been an overall reduction in the number of incidents and thereby a commensurate decline in the number of complaints). The increasing use of the "hotline" appears to indicate increasing awareness regarding this reporting mechanism.

Enforcement: Enforcement actions are undertaken according to the adopted Water Quality Ordinance and accompanying Enforcement Consistency Guide. In instances of noncompliance, the Permittee may adopt one of four types of remedies, including educational letters, administrative remedies, criminal remedies, or other civil or criminal remedies, as appropriate.

Headline Indicator - Number and Level of Enforcement Actions: The Permittees reported a total of 3,528 enforcement actions during the 2004-05 reporting period (Table 10.3; Figure 10.2). This represents an 18.9% decrease from the total reported in 2003-04 (4,351 enforcement actions), and an increase of 63% from the total reported 2002-03 (2,167 enforcement actions).

Level 1: Implement Program

Level 3: Behavior Change

The pattern in the number of enforcement arising from ID/IC investigations follows the pattern observed in other metrics of a peak of activity in the 2003-04 reporting period. An increase in the use of citations over the Third Term permit term is one feature of the changing approach to enforcement representing a shift from the prior educational emphasis.

Training: The Permits require that staff be adequately trained. In response, the Permittees developed a number of training modules (as outlined in 10.2.1) that are offered by the County throughout the year. Although the Permittees stated that the training has been helpful, they noted that the modules need to be updated and that new training topics and more advanced training are desired.

SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

ROWD Commitment:

- Prepare a defined expertise and competencies for Authorized Inspector positions and develop a training program to meet these requirements.

10.3.2 Model Sewage Spill Response Procedures

The 2006-07 Unified Report will present the first opportunity to review the effectiveness of initial implementation of the TASC model program. Based on field experience on actual spills, the intent is to expand the geographical implementation of the program, initially with the area coincident with the boundaries of OCSD.

10.4 **Summary**

The Permittees' program for responding to complaints regarding ID/IC is a long established element of the Program. The major efforts regarding this element over the period of the Third Term Permits relate to the Dry Weather Reconnaissance Program, the continued facilitation of public reporting of complaints, the designation and training of designated Authorized Inspectors, and the development of TASC.

The incidence of complaints appears to have peaked in the 2003-04 reporting period and subsequently declined, which suggest a positive overall Program impact. Based primarily upon the interest of the Permittees and of RWQCB staff, the sole commitment arising out of the effectiveness assessment is for the development of defined experience and competencies for Authorized Inspector positions and development of a training program to meet these requirements.

SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

Table 10.1: Current Outcome Levels and Suggested Actions or Outcomes to Achieve Potential Outcome Levels

ID/IC Program Component	Effectiveness Assessment Outcome Levels					
	Level 1 Implement Program	Level 2 Increase Awareness	Level 3 Behavior Change	Level 4 Load Reduction	Level 5 Runoff Quality	Level 6 Receiving Water Quality
Detection of ID/IC	✓ Identify ID/IC	✓ Track number of complaints by source, facility type, or pollutant	✓ Reduced occurrences of ID/IC			
Enforcement	✓ Issue EAs	✓ Track number of Enforcement Actions	✓ Track number and type of Enforcement Actions	P Discharge is eliminated	P Change in runoff quality	
Training	✓ Track # and type of training	P Surveys				

Key:

- ✓ = Currently Achieved Outcome Level
- P = Potentially Achievable Outcome Level

SECTION 10.0, ILLEGAL DISCHARGES/ILLCIT CONNECTIONS

Table 10.2: Source of Complaints/Incidents, Comparison of 2002-03, 2003-04, and 2004-05

PERMITTEE	City Staff		City Staff		Other		Hotline		Hotline		Public		Public		Busin-		Busin-		Other		TOTAL	
	2002-03	2003-04	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
Aliso Viejo	21	38	11		2	3	2	6	4	7	2	12	15	4	3	2	0	0	0	35	60	37
Anaheim	34	117	156		3	45	2	0	95	56	19	0		0	26	13	0	0	56	283	227	
Brea	NA	3	8		NA	NA	20	NA	0	10	NA	0	16	NA	0	0	0	0	NA	NA	4	54
Buena Park	5	8	24		1	5	3	0	0	0	4	28	35	0	0	1	0	0	0	10	41	63
Costa Mesa	2	21			0	0	14	10	0		286	27	18	70	14		10	90	378	152	32	
Cypress	5	18	14		0	2	3	11	0	7	1	10	7	0	3	4	0	0	17	33	35	
Dana Point	NA	2	24		NA	13	7	NA	2	6	NA	12	33	NA	0	3	NA	6	NA	35	73	73
Fountain Valley	29	50	47		5	2	2	16	6	11	8	1	2	0	0		0	0	58	59	62	
Fullerton	51	43	1		0	0		0	0		26	30	2	0	0		0	0	77	73	3	
Garden Grove	26	15	208		2	5	41	4	10	2	19	84	89	3	6	12	0	0	54	120	352	
Huntington Bch	108	387	140		9	11	10	9	0	0	323	51	59	9	1	1	0	0	458	450	210	
Irvine	32	61	49		4	96	79	0	0	0	33	31	64	0	0	0	0	0	69	188	192	
La Habra	0	6	32		0	0	1	0	0	0	21	19		0	0	0	0	0	21	25	33	
La Palma	27	69	53		1	0	0	1	2	0	4	25	13	0	0	1	0	0	33	96	67	
Laguna Beach	25	25	23		4	13	13	56	66	55	0	0	0	0	0	0	0	0	85	104	91	
Laguna Hills	7	11	20		0	1	2	0	1	0	7	0	0	1	0	0	0	0	15	13	22	
Laguna Niguel	NA	18	14		NA	1	6	NA	2	3	NA	10	2	NA	0	1	NA	0	NA	31	26	
Laguna Woods	12	13	84		6	1	8	0	0	0	22	65	18	0	3	10	0	0	40	82	120	
Lake Forest	2	27	35		4	6	16	0	3	3	11	16	44	0	2	7	0	0	17	54	105	
Los Alamitos	0	0	0		1	12		0	0	0	2	0	0	0	0	0	0	0	3	15	0	
Mission Viejo	NA	NA	0		NA	NA	0	NA	NA	0	NA	NA	111	NA	NA	0	NA	0	NA	NA	111	
Newport Beach	NA	NA	100		NA	NA	5	NA	NA	30	NA	NA	60	NA	NA	10	NA	95	NA	NA	300	
Orange	17	76	35		0	6	3	0	0	257	0	59	0	1	9	0	0	0	18	150	295	
Piacentia	9	58	50		0	1	1	0	1	1	5	13	24	0	0	2	0	0	14	73	147	
R S Margarita	0	4	11		0	1	18	0	5	4	7	3	12	3	0	1	0	0	10	13	46	
San Clemente	NA	581	NA		NA	6	NA	NA	0	NA	NA	92	NA	NA	0	NA	0	NA	NA	679	NA	
S J Capistrano	12	7	8		1	2	1	4	9	10	17	13	26	0	1	1	0	0	34	32	46	
Santa Ana	7	6	37		6	7	7	0	0	0	7	3	6	0	0	2	0	0	20	16	52	
Seal Beach	NA	NA	17		NA	NA	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA	NA	NA	31	
Stanton	NA	0	0		NA	8	0	NA	0	0	NA	40		NA	2		0	NA	NA	NA	0	
Tustin	9	19	37		0	0	0	0	0	0	4	8	9	1	0	0	13	0	27	27	46	
Villa Park	NA	4	5		NA	0	0	NA	0	0	NA	6	10	NA	0	0	0	NA	NA	10	15	
Westminster	0	26	18		8	8	3	0	19	7	0	65	21	0	33	3	0	0	8	151	52	
Yorba Linda	6	23	5		1	1	0	0	0	0	23	26	13	0	1	0	0	0	34	67	19	
County of Orange	12	494	273		1	40	24	4	15	94	17	85	53	0	25	0	0	0	34	667	444	
TOTALS	458	2,230	1,539		69	297	291	121	243	563	868	834	776	92	129	74	23	104	1,621	3,837	3,408	

NA = Not Available

SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

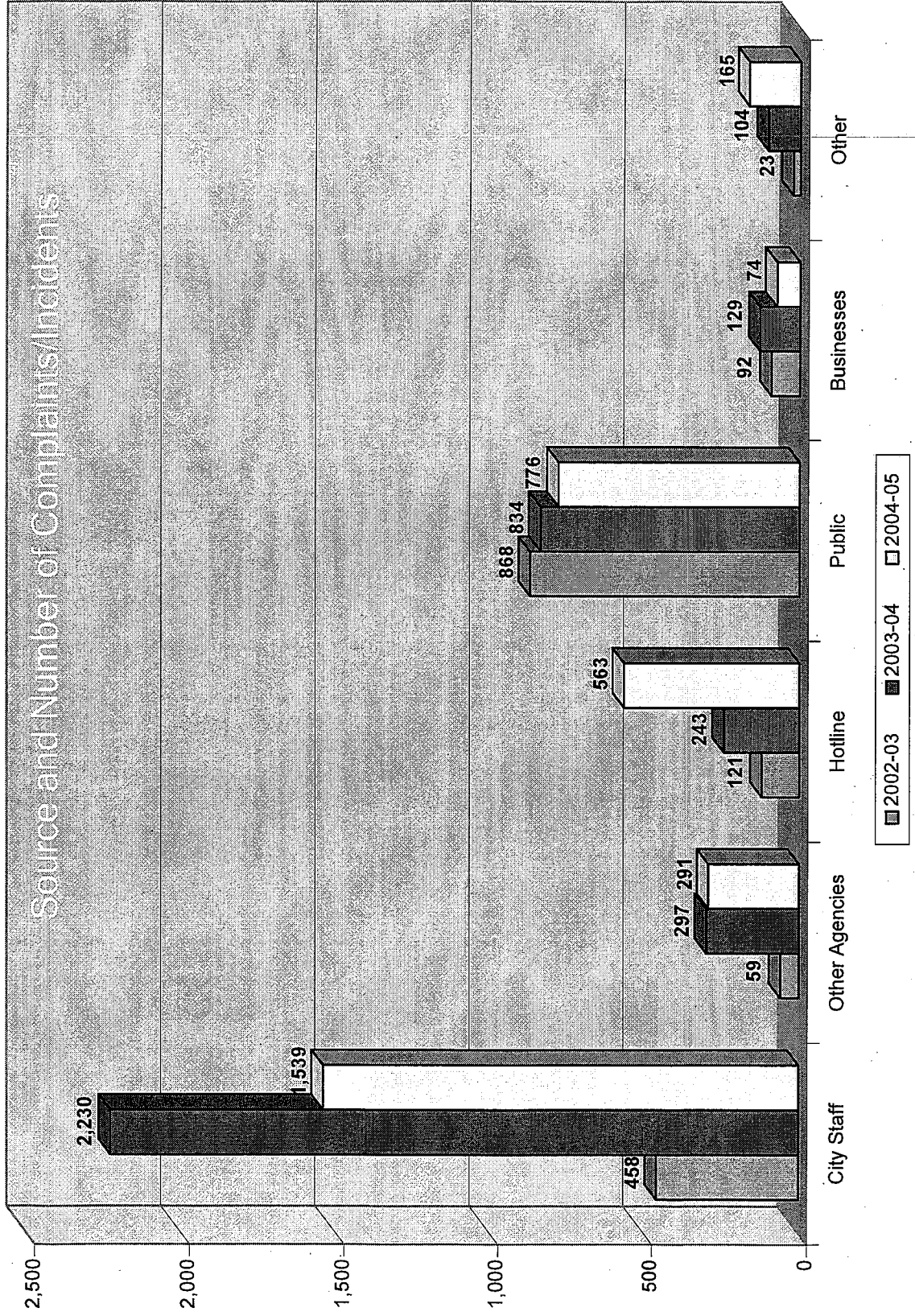
Table 10.3: Permittee Enforcement Actions, Comparison of 2002-03, 2003-04 and 2004-05

Permittee	EL		NON		NON		ACO		CDO		Mis		Inf		Inf		IOC		Other		TOTAL						
	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05	02-03	03-04	04-05			
Aliso Viejo	0	3	7	27	4	19	0	0	1	0	17	2	0	0	0	0	0	4	38	79	3	0	0	34	62	108	
Anaheim	0	1	13	20	39	34	11	39	28	1	0	0	2	0	0	0	0	0	0	0	0	1	0	0	35	79	75
Brea	0	11	6	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	13	8	
Buena Park	8	5	2	0	10	21	0	16	47	0	0	20	0	0	0	0	0	0	0	0	0	0	0	8	31	96	
Costa Mesa	22	9	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0	2	14	2	0	0	0	24	26	9	
Cypress	5	10	3	10	21	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	7	17	31	35	
Dana Point	NA	14	24	NA	19	12	NA	0	9	NA	0	1	NA	0	0	0	NA	0	1	NA	0	18	NA	33	65	65	
Fountain Valley	12	39	71	4	8	6	21	12	15	6	6	9	0	0	0	0	0	0	0	0	40	0	50	83	417	151	
Fullerton	0	0	NA	23	59	NA	5	0	NA	0	0	NA	0	0	14	NA	26	0	NA	0	0	0	NA	54	73	NA	
Garden Grove	21	19	75	2	11	39	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	23	32	115	
Huntington Bch	60	61	96	54	47	127	5	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	120	113	255	
Irvine	32	14	0	0	88	0	24	33	0	0	0	0	0	0	0	0	0	0	0	0	14	5	0	70	140	0	
La Habra	0	0	0	0	1	15	0	0	1	0	0	3	0	0	0	0	0	0	0	0	50	19	32	50	20	51	
La Palma	18	41	31	8	24	15	0	2	4	0	0	1	0	2	0	0	0	0	0	0	0	0	14	26	69	67	
Laguna Beach	0	5	2	71	62		52	83	0	0	0	0	1	0	0	0	0	37	0	184	0	114	184	244	116		
Laguna Hills	8	6	16	5	11	20	1	1	0	1	0	0	1	0	0	0	0	0	0	16	0	0	16	18	36		
Laguna Niguel	NA	8	10	NA	1	4	NA	0	0	NA	0	0	NA	0	0	0	NA	0	0	NA	0	0	NA	9	14		
Laguna Woods	27	30	15	11	13	18	1	1	0	0	1	0	0	0	0	0	0	6	2	40	0	0	40	51	35		
Lake Forest	90	2	2	3	23	42	0	0	0	0	0	1	0	0	0	0	0	0	0	93	0	0	93	25	45		
Los Alamitos	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	
Mission Viejo	134	15	5	58	139	31	0	0	0	1	0	1	0	0	0	0	0	0	2	193	0	0	193	154	39		
Newport Beach	6	8	20	250	618	209	200	315	0	0	0	0	0	0	0	0	0	0	166	756	550	1100	756	1491	1495		
Orange	0	75	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	2	
Piacentia	8	20	7	0	11	19	3	3	0	3	1	0	0	0	0	0	0	0	0	14	31	41	14	66	68		
R S Margarita	10	7	48	0	0	13	0	0	0	0	1	0	0	0	0	0	0	0	0	10	0	5	10	8	66		
San Clemente	72	430	175	37	160	98	0	10	0	1	9	11	0	0	0	0	2	0	45	8	10	2	120	619	331		
S J Capistrano	24	6	0	9	2	0	0	7	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	34	16	0	
Santa Ana	1	4	1	2	9	18	1	1	1	1	0	0	0	0	0	0	0	0	0	14	2	0	19	16	20		
Seal Beach	4	35	0	21	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	6	0	28	82	31		
Stanton	NA	0	0	NA	0	0	NA	0	0	NA	0	0	NA	0	0	0	NA	0	0	NA	0	0	NA	0	0	0	
Tustin	0	169	38	16	27	21	0	5	0	0	0	0	0	0	0	0	0	1	0	11	0	0	27	201	60		
Villa Park	15	0	3	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	15	10	0	15	10	15		
Westminster	13	55	35	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	15	55	92		
Yorba Linda	1	2	0	21	34	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	22	41	9		
County of Orange	5	4	3	20	12	12	2	9	4	0	0	0	0	0	0	0	0	0	0	3	2	0	30	27	19		
TOTALS	600	1,460	715	675	1,502	845	927	544	110	16	36	49	4	3	1	0	71	34	96	368	511	639	1,439	2,167	4,351	3,528	

NA = Not Available
EL = Educational Letter
NON = Notice of Non-Compliance
ACO = Administrative Compliance Order
CDO = Cease and Desist Order
Mis = Misdemeanor
Inf = Infraction
IOC = Issuance of Citation

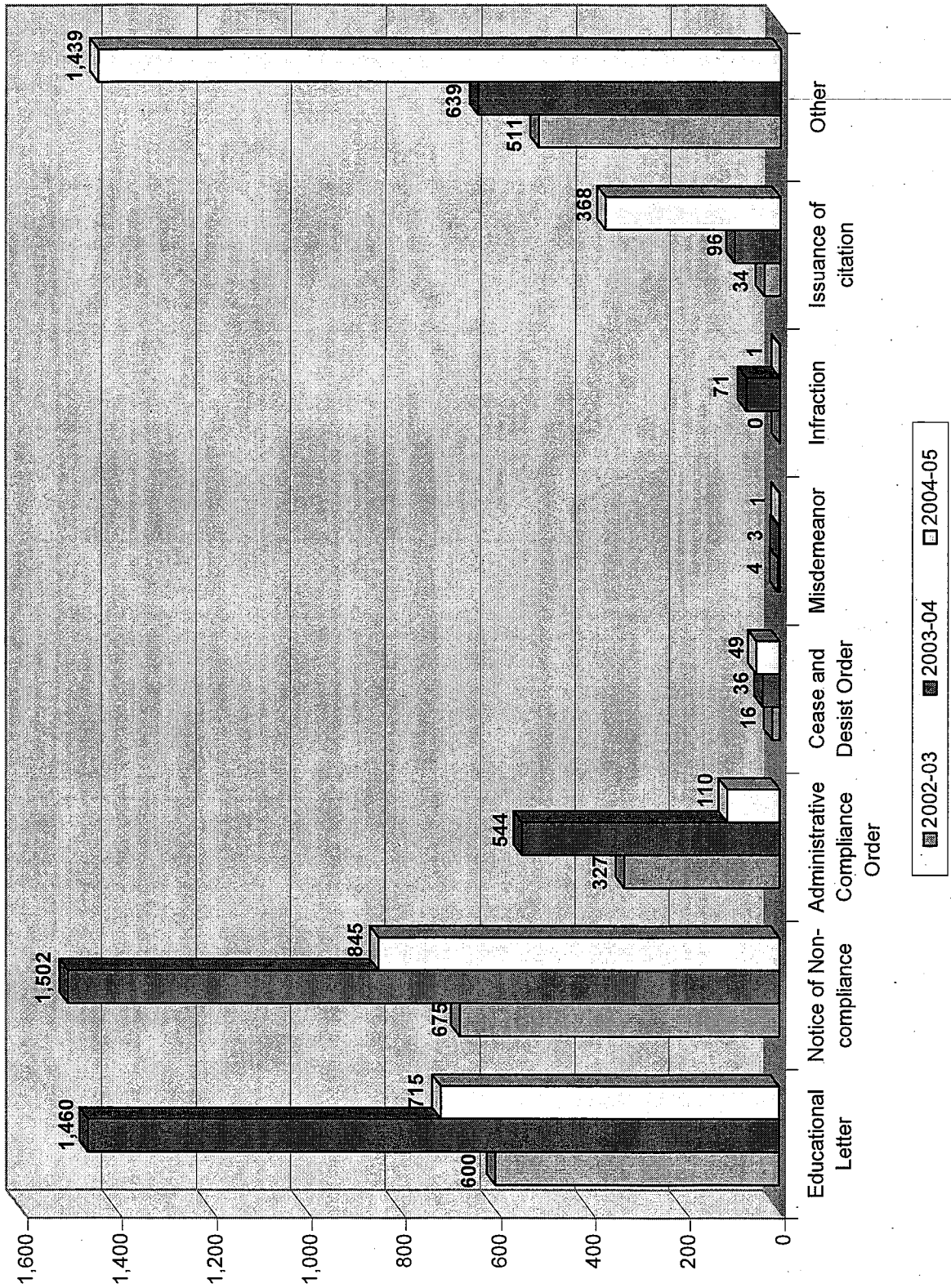
SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

Figure 10.1: Source of Complaints/Incidents, Comparison of 2002-03, 2003-04, and 2004-05



SECTION 10.0, ILLEGAL DISCHARGES/ILLICIT CONNECTIONS

Figure 10.2: Permittee Enforcement Actions, Comparison of 2002-03, 2003-04 and 2004-05



SECTION 11.0, WATER QUALITY MONITORING SUMMARY AND ANALYSES

11.0 WATER QUALITY MONITORING SUMMARY AND ANALYSES

11.1 Introduction

The goal of environmental monitoring is to support the management process.

"monitoring is most useful when it results in more effective management decisions, specifically management decisions that protect or rehabilitate the environment."
(NAS, 1991¹)

On July 1, 2003 the Permittees submitted a proposed monitoring plan to the Santa Ana Regional Board for the Third Term Permit. This monitoring plan design was based on the model stormwater monitoring plan developed by a subcommittee of the southern California Stormwater Monitoring Coalition (SMC). This subcommittee was comprised of representatives from southern California stormwater agencies, Regional and State Water Resources Control Board staff, EPA Region 9, and the Southern California Coastal Water Research Project (SCCWRP).

With input from Regional Board staff, many additions to the proposed plan for the Third Term permit were made to accommodate development of the Toxics TMDLs for San Diego Creek and Newport Bay. The plan was finally approved during the summer of 2005 and subsequently implemented.

In the interim period between issuance of the Third Term Permit and approval of the new monitoring plan, the program continued monitoring under the Second Term Permit plan (99-04 Plan). Under the 99-04 plan the Permittees identified a group of critical aquatic resources and conducted monitoring to evaluate environmental conditions relative to applicable water quality criteria. The 99-04 Plan also included mass emissions monitoring of stormwater runoff at several locations in the Newport Bay and Anaheim Bay/Huntington Harbour watersheds.

No evaluation is currently possible of data collection that was started under the Third Term Permit. This section will therefore focus on the results of monitoring critical aquatic resources and mass emissions monitoring under the 99-04 Plan.

11.2 Accomplishments

11.2.1 Completion of the 99-04 Monitoring Plan

Critical Aquatic Resources

The 99-04 Monitoring Plan identified critical aquatic resources in Orange County. In the Santa Ana Regional Board area these included the Newport Bay, Huntington Harbour, and Bolsa Bay. Monitoring during the First Term Permit included evaluations of water chemistry and physical characteristics during periods stormwater runoff, and semi-

¹ Managing Troubled Waters, National Academy of Sciences, 1991

SECTION 11.0, WATER QUALITY MONITORING SUMMARY AND ANALYSES

annual (pre and post storm season) dry-weather assessments of water quality, physical characteristics, and benthic sediment chemistry. The water chemistry assessments included nutrients and trace metals. During the latter part of the First Term Permit dissolved metals were added to the suite of analyses in anticipation of the adoption of the California Toxics Rule (CTR).

Although the monitoring locations in these receiving waters have essentially remained the same from the start of the NPDES program, the most significant change has been the dramatic improvement in the reporting limits for trace metals. For some metals the reporting limits have dropped nearly two orders of magnitude from the early 1990's to 2005. This improvement has allowed more confidence in the assessment of potential aquatic toxicity with respect to the criteria from the CTR:

As in the prior monitoring program the goal at each harbor complex was to monitor two stormwater runoff events per year. Each monitored stormwater event included three separate visits: day 1 of stormwater runoff to receiving water, 2 days after initial sampling, and 4 days after initial sampling. The water chemistry from each sampling was compared to applicable acute saltwater criteria from the CTR. The mean concentrations of the 3 days of stormwater sampling were compared to the chronic saltwater criteria from the CTR.

The following is a summary of the number of stormwater runoff events monitored in the harbors during the last five reporting years. The 2001-02 and 2003-04 storm seasons did not present many monitoring opportunities because of the lower than average rainfall totals.

Reporting Year	Rainfall Total at Santa Ana	Huntington Harbour	Newport Bay
2000-01	14.87"	0	3
2001-02	3.82"	0	0
2002-03	14.57"	2	2
2003-04	8.41"	1	1
2004-05	28.44"	2	2

In order to put the critical aquatic resources sites in a broader regional perspective, aquatic chemistry samples from these locations (e.g., Newport Bay, Huntington Harbour, Bolsa Bay) were combined with aquatic chemistry samples from the mass emissions monitoring program and then evaluated in comparison to acute and chronic toxicity criteria established in the CTR. The data from the bays and harbors were compared to the saltwater criteria from the CTR. The data from the mass emissions sites were compared to the freshwater criteria and to the saltwater criteria if the channel directly discharges to a marine or estuarine receiving water. While such CTR criteria are available for only a portion of the constituents measured in the program's samples, the combination of all available CTR exceedance data provides an overview of patterns across the region. In addition to tabulating the number of exceedances at each station, the overall percentage of exceedances at each station (out of all samples collected at each station) was used to place stations into one of four categories representing relative

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frequency of exceedances. These categories were then represented with colored symbols on maps (Figure 11.1 and Figure 11.2) of the region.

Table 11.2 summarizes the patterns of exceedances of relevant acute toxicity CTR criteria at mass loading and bays/harbors monitoring stations in the Santa Ana region with more than one sampling event. These stations provide the most spatially distributed and consistently sampled set of data for assessing overall levels of specific pollutants in both dry and wet weather. **Table 11.3** summarizes the comparisons of stormwater data from the bays/harbors to relevant chronic toxicity criteria from the CTR.

It should be noted that the comparisons of the concentrations of dissolved metals at mass emission sites near estuarine receiving waters to saltwater criteria from the CTR assume no mixing zone dilution in the receiving waters. During dry weather conditions the impacts would be localized at the channel-receiving water interface. During stormwater runoff the spatial impacts would be greater.

The main findings from the data were that:

1. Exceedances of the acute toxicity criteria in channels and bay/harbors were predominantly due to dissolved copper, with much smaller percentages due to dissolved zinc in some channels.
2. Exceedances of the chronic toxicity criteria in the harbors were due to both dissolved copper and nickel.
3. Exceedances were more widespread during periods of stormwater water runoff compared to dry weather
4. There was a tendency for exceedances to be more frequent at stations nearer the bottom end of watersheds, along the coast, and particularly in embayments such as Huntington Harbour and Newport Bay.

Figures 11.1 and 11.2 visually summarize these regional patterns, using the data presented in **Table 11.2**.

Within these larger patterns, the CTR exceedance data help identify locations where targeted special studies to identify upstream sources should be implemented. The Third Term Monitoring Program has been designed to be adaptive to allow these special studies if warranted. These are stations where both the exceedance rate and/or the number of pollutants showing exceedances are among the highest:

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Channels
CMCG02
SADF01
SDMF05

Bays/Harbors
HUNBCC
HUNCRB
HUNWAR
TGDC05
LNBHIR
LNBRIN
UNBCHB
UNBJAM
UNBNSB
UNBSDC

Stations with elevated exceedance rates in dry weather tend to have elevated rates in wet weather as well. However, there is not a readily apparent, consistent relationship between the overall levels of CTR exceedances at the mass loading stations and the loads of total metals. For example, both stations CMCG02 and SDMF05 showed persistent exceedances of the saltwater CTR criteria (Table 11.2), yet Figures 11.5 and Figure 11.5a show that these two stations have very different baseline mass loads of copper, nickel, and zinc. Improved understanding of the potential impact of these elevated pollutant levels will stem from the addition of toxicity testing to the Third Term Monitoring Program. This will help to identify where and to what extent such pollutants are more likely to be bio-available.

Mass Emissions Monitoring

The long-term mass emissions component of the monitoring program is intended to evaluate changes in stormwater pollutant loadings over a number of permit terms. This is accomplished through wet weather monitoring of a number of flood channels in the Newport Bay and Anaheim Bay-Huntington Harbour watersheds. Monitored constituents include nutrients, trace elements (total recoverable and dissolved), and for some channels, organophosphate pesticides. The program is coordinated with elements of the San Diego Creek Nutrient TMDL, a dry-weather assessment of the inorganic nitrogen and total nitrogen loading to the Newport Bay.

For the stormwater assessments three storms are monitored at each location annually and for each storm the water chemistry is monitored with a series of 3 to 4 composite samples collectively spanning approximately 96-hours. This time period frequently extends beyond the end of stormwater runoff but provides for comparison of the time-weight average concentrations of dissolved metals to the 96-hour guidance criteria for chronic aquatic toxicity from the CTR. The concentrations of dissolved heavy metals in each of the composite samples are also compared to acute toxicity criteria from the CTR.

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The concentrations of organophosphate pesticides are compared to literature values of LC₅₀s for toxicity testing organisms.

The dry-weather assessments usually involve a 24-hour composite sampling of the channels on a monthly basis. More frequent monitoring is also conducted at some stations for the Nutrient TMDL.

Mass Emissions monitoring during the Third Term Permit in the SAR was essentially an extension of monitoring conducted under the prior permits. Several sites, primarily in the Newport Bay watershed, have been monitored since the early 1990's. Table 11.1 lists the mass emissions sites from which data were analyzed for this report.

The monitoring program utilizes continuous water level records from streamgages at each site are used to determine dry-weather and stormwater discharge rates. The streamgages on Costa Mesa, Central Irvine, and Lane Channels have not had sufficient numbers of stormwater discharge measurements made to accurately define the upper ranges of their respective channel ratings. To remedy this deficiency the program has recently invested in equipment utilizing acoustic Doppler current profiling technology in order to rapidly make discharge measurements during stormwater conditions.

The evolution of automatic sampling equipment and analytical methodologies has improved sampling efficiency and allowed more accurate assessments of potential aquatic toxicity. During the latter part of the 99-04 Monitoring Program Teflon-lined sampler tubing replaced plastic tubing to reduce the likelihood of cross contamination between samples. Detection limits of the analytical services providers improved dramatically for trace element and pesticide analyses.

The raw data for many constituents from the long-term mass loading stations in the Santa Ana Region (see Figure 11.3 for the location of stations and Figure 11.4 for an example raw data plot) show declining trends in event mean concentrations (EMCs) and loads over time. The legitimacy of these trends was investigated statistically² with a multiple regression analysis that included both the amount of rainfall in the three days preceding each sampling event and the amount of total suspended solids (TSS) in each sample. In order to increase the length of the time series back to the early 1990s, only total metals, phosphate (PO₄), and nitrate (NO₃) were used in the analysis.

The findings of this statistical analysis were as follows:

- There were no long-term trends in loads and event mean concentrations (EMCs) that were not accounted for by changes in TSS concentrations
- Mean levels of TSS differed among stations and so did underlying (baseline) levels of pollutants

The statistical analysis showed that the stormwater trends in metals, phosphate and nitrate concentrations were not a function of time but a function of TSS concentration.

² Mark Fitzgerald, Neptune and Company Inc.

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This would suggest that TSS reduction would result in a reduction of the other constituents. This makes logical sense for metals and phosphate which are predominantly found in particulate form in stormwater. For nitrate however, the TSS correlation is not readily explainable since nitrate is a dissolved component.

The underlying differences among stations in both EMCs and loads (after TSS influences were statistically removed) are shown in Figures 11.5 and 11.6. San Diego Creek at Campus (station SDMF05) has the highest loads for the three metals and two nutrients, probably a reflection of its consistently higher flow. On the other hand, the rank order of stations after this changes depending on the pollutant. There was no single station that was consistently among the highest ranked in terms of EMCs.

11.2.2 Approval of the Third Term Monitoring Plan

On July 1, 2003, the Permittees submitted to the Regional Board a monitoring program proposal to address the requirements of the Third Term Permit. The design of the program was based on The Model Monitoring Program for Municipal Separate Storm Sewer Systems in Southern California, a report from the Southern California Stormwater Monitoring Coalition (SMC). The proposal contained several new assessment tools (relative to the 99-04 Plan) including expanded suites of monitored stormwater pollutants, dry-weather reconnaissance for illegal discharges/illicit connections, urban stream bioassessments, infaunal analyses of benthic sediment in the harbors and estuaries, and toxicity testing of water and benthic sediment. After lengthy discussions between the Permittees and Regional Board staff, the proposed monitoring plan was revised to incorporate several new elements to aid in the development of the Toxics TMDLs for San Diego Creek and the Newport Bay. The Executive Officer gave final approval of the plan in August 2005 and it was subsequently implemented.

While the 99-04 Plan has provided useful information with respect to regional patterns of water quality relative to the CTR and trends in stormwater EMCs and loads, the Third Term program will greatly expand the Permittees ability to assess the impacts of urban runoff. Since the Third Term program was implemented in August 2005 the Permittees have done the following:

- Conducted urban stream bioassessments in the Fall of 2005 and Spring of 2006
- Conducted toxicity testing of stormwater runoff at mass emissions and harbor/estuary sites
- Conducted infaunal analyses and toxicity testing of the benthic sediment in the Newport Bay and Huntington Harbour
- Initiated the weekly monitoring of bacterial indicators in coastal stormdrain discharges and their receiving waters
- Initiated the dry-weather reconnaissance program in May of 2006

Analysis of the data from this monitoring will be provided in the Performance Evaluation Assessment Report in November 2006.

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11.2.3 Database Management

In 2004, a new computer program was developed for managing NPDES monitoring data. The intent of this program which has been called Labtrack, is to provide a single repository for all current NPDES data, to reduce the number of systematic errors in monitoring and laboratory analyses, and to increase the efficiency in processing invoices for the payment of analytical services. Some of the features of Labtrack include:

- Printing labels for sampling containers
- Printing and maintaining chain-of-custody documentation
- Checking laboratory results against quality assurance criteria
- Checking invoice pricing against price agreements
- Integrating discharge rate information from Hydstra (hydrologic database) to calculate load information for PEA and TMDL reports

11.2.4 Participation in Regional Monitoring Programs

Since 1997, the Permittees have been an active participant in the Regional Monitoring Program for the Southern California Bight. A Permittee representative has served on the steering committees for the 1998 Regional Assessment (Bight 98) and the 2003 Assessment (Bight 03). A representative has also served on several of the monitoring subcommittees on Bight 03.

The Permittees have also provided representation to the southern California Stormwater Monitoring Coalition. A Permittee representative was instrumental in the development of the Model Stormwater Monitoring Program guidance document mentioned in Section 11.2.2. A Permittee representative is currently on the working group with SCCWRP and the California Department of Fish and Game to improve the California Stream Bioassessment Procedure.

The knowledge gained from participation in these regional programs has enabled the Permittees to improve the monitoring program in many ways. The newly established price agreements for analytical services for the stormwater program required that the vendor had participated in the rigorous laboratory inter-calibration exercises for the Bight Regional Monitoring Program. These exercises, coordinated by SCCWRP, ensured that the accuracy and precision by each of the participating laboratories were maintained at a high standard.

11.2.5 Involvement in Research Level Investigations

The Permittees also contributed monitoring equipment and funding to UCI to conduct bacteriological investigations in the Santa Ana River and Huntington Beach surfzone. As a result of the study findings, the dry-weather discharges of several channels which drain to that area have been diverted to the Orange County Sanitation District. Since the diversions have been implemented there has been an improvement in scores for the surfzone in that area on Heal the Bay's Beach Water Quality Report Card.

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11.3 Assessment

The Permittees have assessed the recently approved Third Term Permit Monitoring Program and are proposing no changes to this program.

The Permittees will continue to develop the capabilities to implement the program and assess the monitoring data to provide feedback to the management program. This will include the following:

- Continue to participate in Regional efforts to improve the quality and validity of stormwater monitoring data and provide a broader geographic context for monitoring results. These would include the Bight and SMC laboratory inter-calibrations, and Surface Water Ambient Monitoring Program (SWAMP) comparability studies.
- Continue to investigate improved GIS base data visualization tools for presenting monitoring information to a broader audience.
- Improve existing water quality database (Labtrack) to include automated report generation for:
 - Monthly updates to the Permittees pertaining to the Dry-weather Reconnaissance program
 - Quarterly data reports for the Nutrient TMDL
 - Integration of NPDES monitoring data with UCI's CalSWIM web-base GIS database
- Enhance training of monitoring staff by
 - Preparing standard operating procedures manuals for each monitoring program element
 - Providing opportunities for attending specialized training as provided by the USGS (streamgaging) and CaDFG (urban stream bioassessment)
- Evaluate new technologies for sampling and discharge monitoring

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Table 11.1: Mass Loading Stations Sampled During the Permit Term

Site Code	Channel	NPDES	Nutrient TMDL	Comments
SDMF05	San Diego Creek at Campus	X	X	
BARSED	Peters Canyon Wash at Barranca	X	X	
WYLSER	San Diego Creek at Harvard	X	X	
SADF01	Santa Ana Delhi at Irvine Ave	X	X	
CICF25	Central Irvine u/s Peters Cyn Wash	X		New site under 3 rd term permit. Channel rating needs refining
BCF04	Bonita Cyn Wash u/s University		X	USGS gage
MIRF07	El Modena Irvine at Michelle		X	
LANF08	Lane Channel at Jamboree	X	X	Channel rating needs refining
ACWF18	Agua Chinon u/s San Diego Creek	X	X	USGS gage
CMCG02	Costa Mesa Channel at Highland	X	X	Channel rating needs refining
BCC02	Bolsa Chica at Westminster	X	X	
ABCC03	Anaheim Barber City at Rancho Rd	X		
WMCC04	Westminster Channel at Beach Blvd	X		
EGWC05	E. Garden Grove Wintersburg at Gothard	X		Gage removed during channel reconstruction 02-05

SECTION 11.0, WATER QUALITY MONITORING SUMMARY AND ANALYSES

Table 11.2: Summary of Exceedances of Acute CTR Criteria Across the Region

Weather	CTR Type	Site Code	Type	Watershed	# Samples	% Samples Exceeding CTR		
						Cu	Ni	Zn
Storm	FW	ABCC03	Channel	Anaheim Bay-Huntington Harbour	25	40	0	4
Storm	FW	BCC02	Channel	Anaheim Bay-Huntington Harbour	11	18	0	0
Storm	FW	EGWC05	Channel	Anaheim Bay-Huntington Harbour	18	45	0	0
Storm	FW	WMCC04	Channel	Anaheim Bay-Huntington Harbour	16	50	0	6
Storm	SW	BCC02	Channel	Anaheim Bay-Huntington Harbour	11	100	0	0
Storm	SW	EGWC05	Channel	Anaheim Bay-Huntington Harbour	18	100	0	6
Dry	SW	BBOLR	Harbor	Anaheim Bay-Huntington Harbour	11	55	0	0
Dry	SW	HUNBCC	Harbor	Anaheim Bay-Huntington Harbour	11	73	0	0
Dry	SW	HUNCRB	Harbor	Anaheim Bay-Huntington Harbour	11	82	0	0
Dry	SW	HUNSUN	Harbor	Anaheim Bay-Huntington Harbour	11	45	0	0
Dry	SW	HUNWAR	Harbor	Anaheim Bay-Huntington Harbour	11	64	0	0
Dry	SW	TGDC05	Harbor	Anaheim Bay-Huntington Harbour	8	88	0	0
Storm	SW	BBOLR	Harbor	Anaheim Bay-Huntington Harbour	7	43	0	0
Storm	SW	HUNBCC	Harbor	Anaheim Bay-Huntington Harbour	9	67	0	10
Storm	SW	HUNCRB	Harbor	Anaheim Bay-Huntington Harbour	9	56	0	0
Storm	SW	HUNSUN	Harbor	Anaheim Bay-Huntington Harbour	9	56	0	0
Storm	SW	HUNWAR	Harbor	Anaheim Bay-Huntington Harbour	9	44	0	0
Storm	SW	TGDC05	Harbor	Anaheim Bay-Huntington Harbour	5	80	0	0
Dry	FW	BARSED	Channel	Newport Bay	8	0	0	0
Dry	FW	BCF04	Channel	Newport Bay	5	0	0	0
Dry	FW	CICF25	Channel	Newport Bay	7	0	0	0
Dry	FW	CMCG02	Channel	Newport Bay	137	5	0	1
Dry	FW	HCWF27	Channel	Newport Bay	5	0	0	0
Dry	FW	SADF01	Channel	Newport Bay	10	20	0	0
Dry	FW	SDMF05	Channel	Newport Bay	82	0	0	0
Dry	FW	WYLS05	Channel	Newport Bay	9	0	0	0
Dry	SW	CMCG02	Channel	Newport Bay	137	99	1	1
Dry	SW	SADF01	Channel	Newport Bay	10	90	0	0
Dry	SW	SDMF05	Channel	Newport Bay	82	48	0	0

SECTION 11.0, WATER QUALITY MONITORING SUMMARY AND ANALYSES

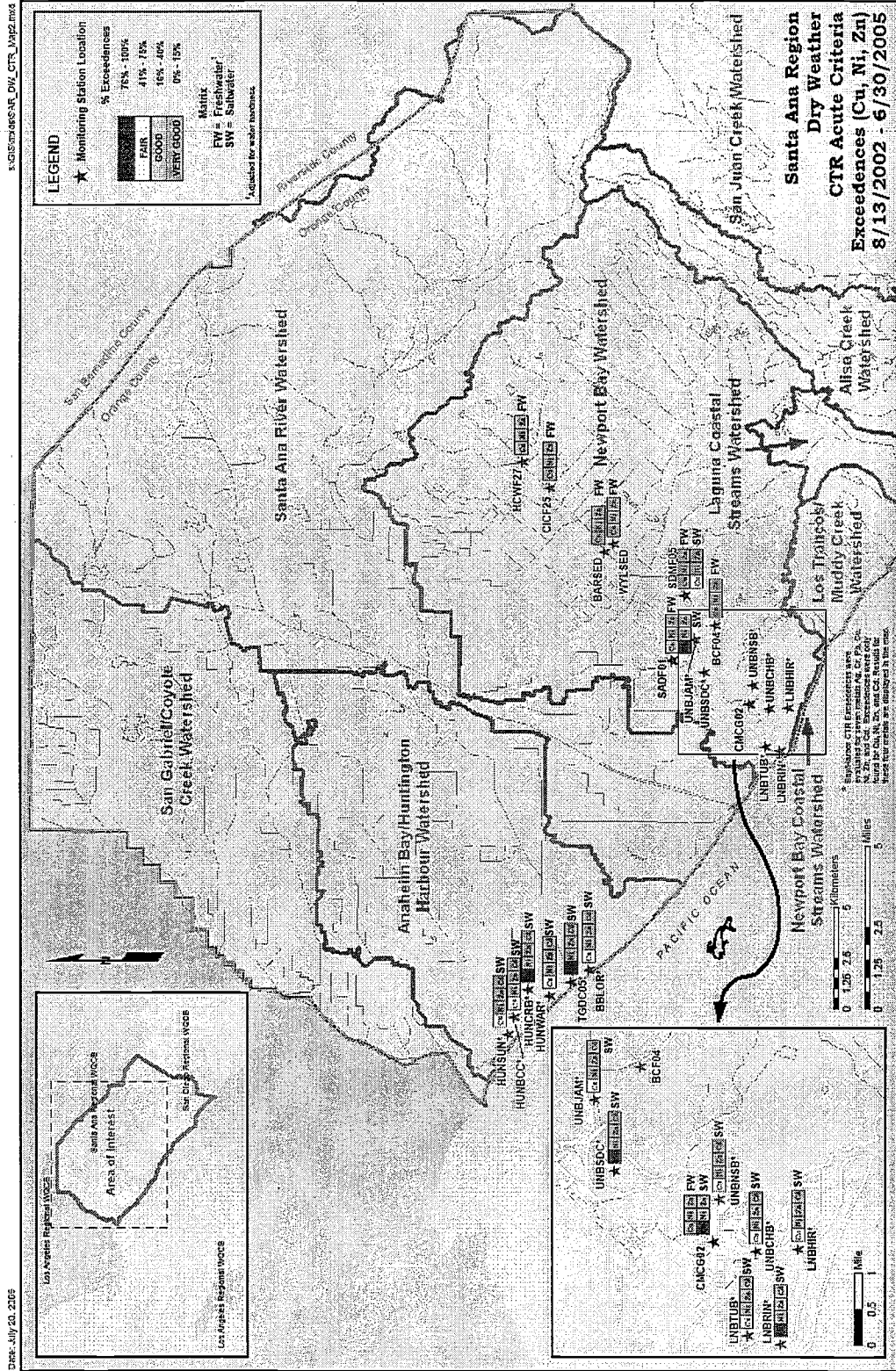
Weather	CTR Type	Site Code	Type	Watershed	% Samples Exceeding CTR			
					# Samples	Cu	Ni	Zn
Dry	SW	LNBHIR	Harbor	Newport Bay	12	75	0	0
Dry	SW	LNBRIN	Harbor	Newport Bay	4	100	0	0
Dry	SW	LNBTUB	Harbor	Newport Bay	4	50	0	0
Dry	SW	UNBCHB	Harbor	Newport Bay	12	67	0	0
Dry	SW	UNBJAM	Harbor	Newport Bay	12	75	0	0
Dry	SW	UNBNSB	Harbor	Newport Bay	12	67	0	0
Dry	SW	UNBSDC	Harbor	Newport Bay	13	77	0	0
Storm	FW	ACWF18	Channel	Newport Bay	4	0	0	0
Storm	FW	BARSED	Channel	Newport Bay	61	5	0	0
Storm	FW	BCF04	Channel	Newport Bay	17	6	0	0
Storm	FW	CICF25	Channel	Newport Bay	8	13	0	0
Storm	FW	CMCG02	Channel	Newport Bay	58	48	0	26
Storm	FW	HCWF27	Channel	Newport Bay	7	0	0	0
Storm	FW	LANF08	Channel	Newport Bay	39	15	0	0
Storm	FW	MIRF07	Channel	Newport Bay	16	31	0	0
Storm	FW	SADF01	Channel	Newport Bay	57	28	0	0
Storm	FW	SDMF05	Channel	Newport Bay	50	4	0	0
Storm	FW	WYLS02	Channel	Newport Bay	52	2	0	0
Storm	SW	CMCG02	Channel	Newport Bay	58	97	0	22
Storm	SW	SADF01	Channel	Newport Bay	57	98	0	12
Storm	SW	SDMF05	Channel	Newport Bay	50	86	0	2
Storm	SW	LNBHIR	Harbor	Newport Bay	15	60	0	0
Storm	SW	LNBRIN	Harbor	Newport Bay	16	75	0	0
Storm	SW	LNBTUB	Harbor	Newport Bay	10	100	0	0
Storm	SW	UNBCHB	Harbor	Newport Bay	17	59	0	0
Storm	SW	UNBJAM	Harbor	Newport Bay	16	50	0	0
Storm	SW	UNBNSB	Harbor	Newport Bay	16	38	0	0
Storm	SW	UNBSDC	Harbor	Newport Bay	16	44	0	0

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Table 11.3 Summary of Exceedances of CTR Chronic Criteria in Harbors and Bays

Weather	CTR Type	Site Code	Type	Watershed	# Samples	% Samples Exceeding CTR		
						Cu	Ni	Zn
Storm	SW	BBOLR	Harbor	Anaheim Bay-Huntington Harbour	4	75	50	0
Storm	SW	HUNBCC	Harbor	Anaheim Bay-Huntington Harbour	4	75	25	0
Storm	SW	HUNCRB	Harbor	Anaheim Bay-Huntington Harbour	4	100	25	0
Storm	SW	HUNSUN	Harbor	Anaheim Bay-Huntington Harbour	4	75	25	0
Storm	SW	HUNWAR	Harbor	Anaheim Bay-Huntington Harbour	4	100	0	0
Storm	SW	TGDC05	Harbor	Anaheim Bay-Huntington Harbour	3	100	33	0
Storm	SW	LNBHIR	Harbor	Newport Bay	7	86	29	0
Storm	SW	LNBRIN	Harbor	Newport Bay	6	100	50	0
Storm	SW	LNBTUB	Harbor	Newport Bay	4	100	75	0
Storm	SW	UNBCHB	Harbor	Newport Bay	7	86	29	0
Storm	SW	UNBJAM	Harbor	Newport Bay	8	100	25	0
Storm	SW	UNBNSB	Harbor	Newport Bay	8	75	50	0
Storm	SW	UNBSDC	Harbor	Newport Bay	7	71	29	0

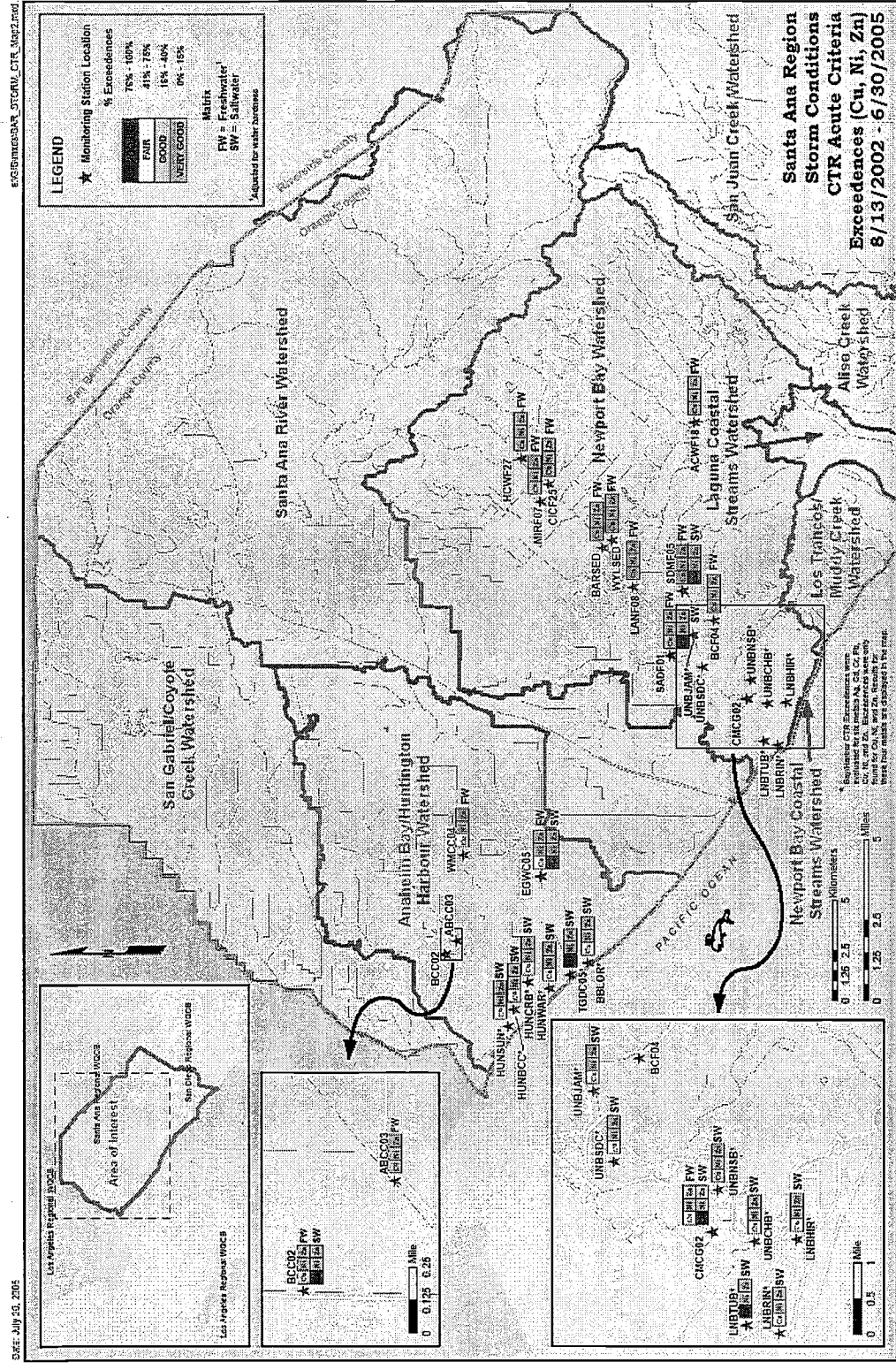
Figure 11.1: Pattern of CTR Exceedances Across the Region During Dry Weather



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Printed July 20, 2006

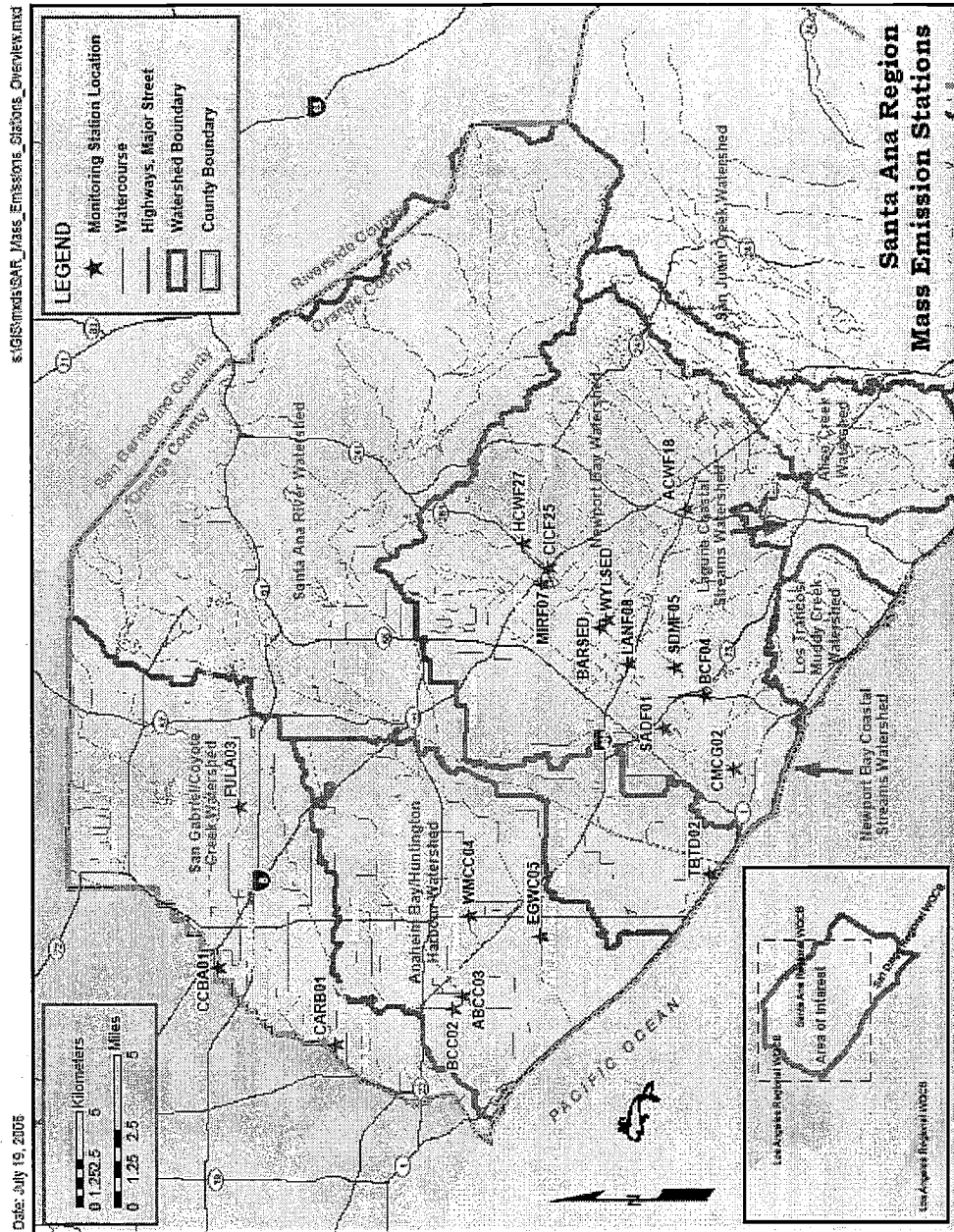
Figure 11.2: Pattern of CTR Exceedances Across the Region During Wet Weather



EX16EMIGSDAR_STORM_CTR_Mar2.mxd

DATE: JUN-30, 2005

Figure 11.3: Location of the Long-Term Mass Loading Stations



New stations (CARB01, CCBA01, FULA03) are not included in retrospective analyses.

Figure 11.4: Illustrative Trends in Raw EMCs and Loads of Copper and Zinc at San Diego Creek at Campus (SDMF05)

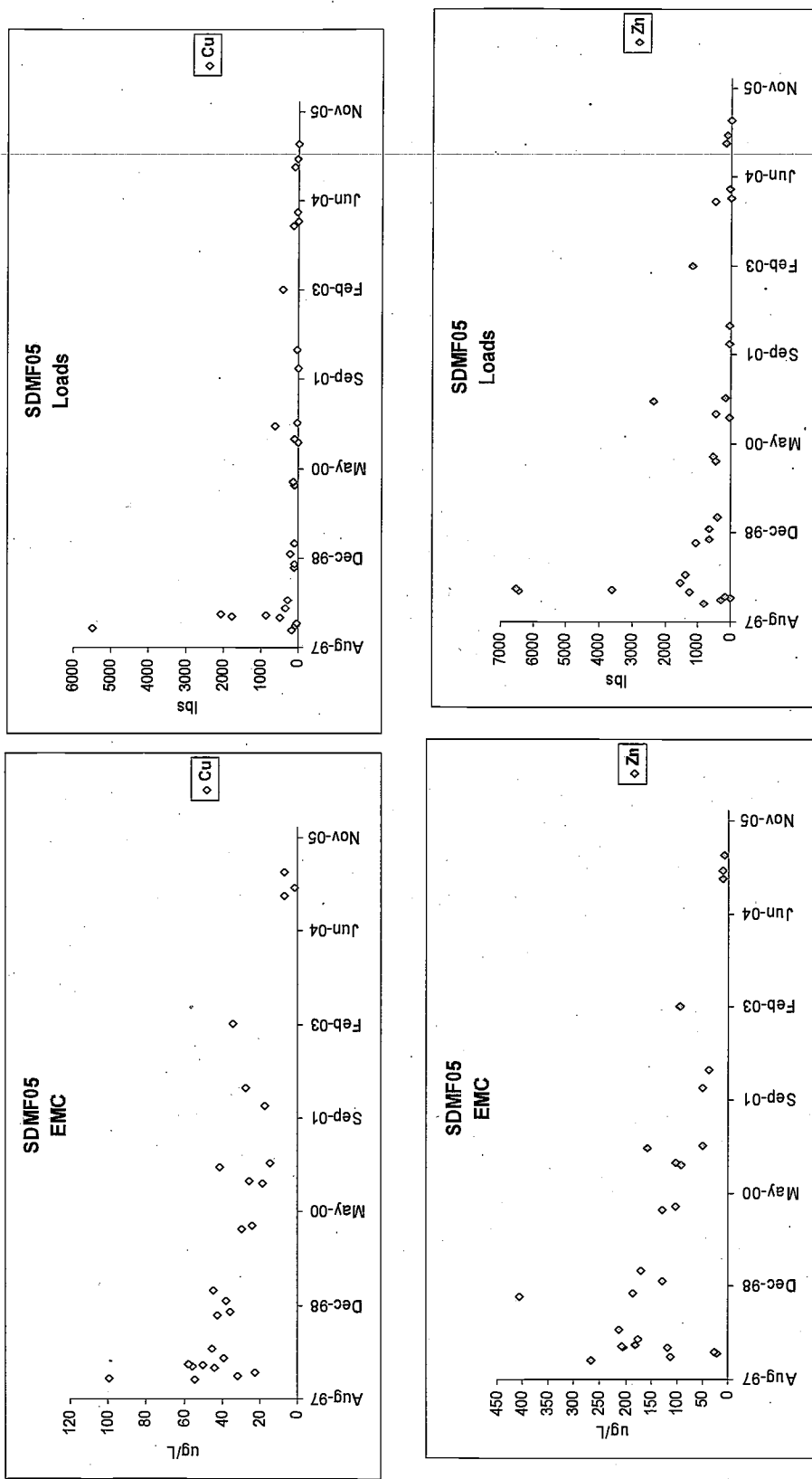
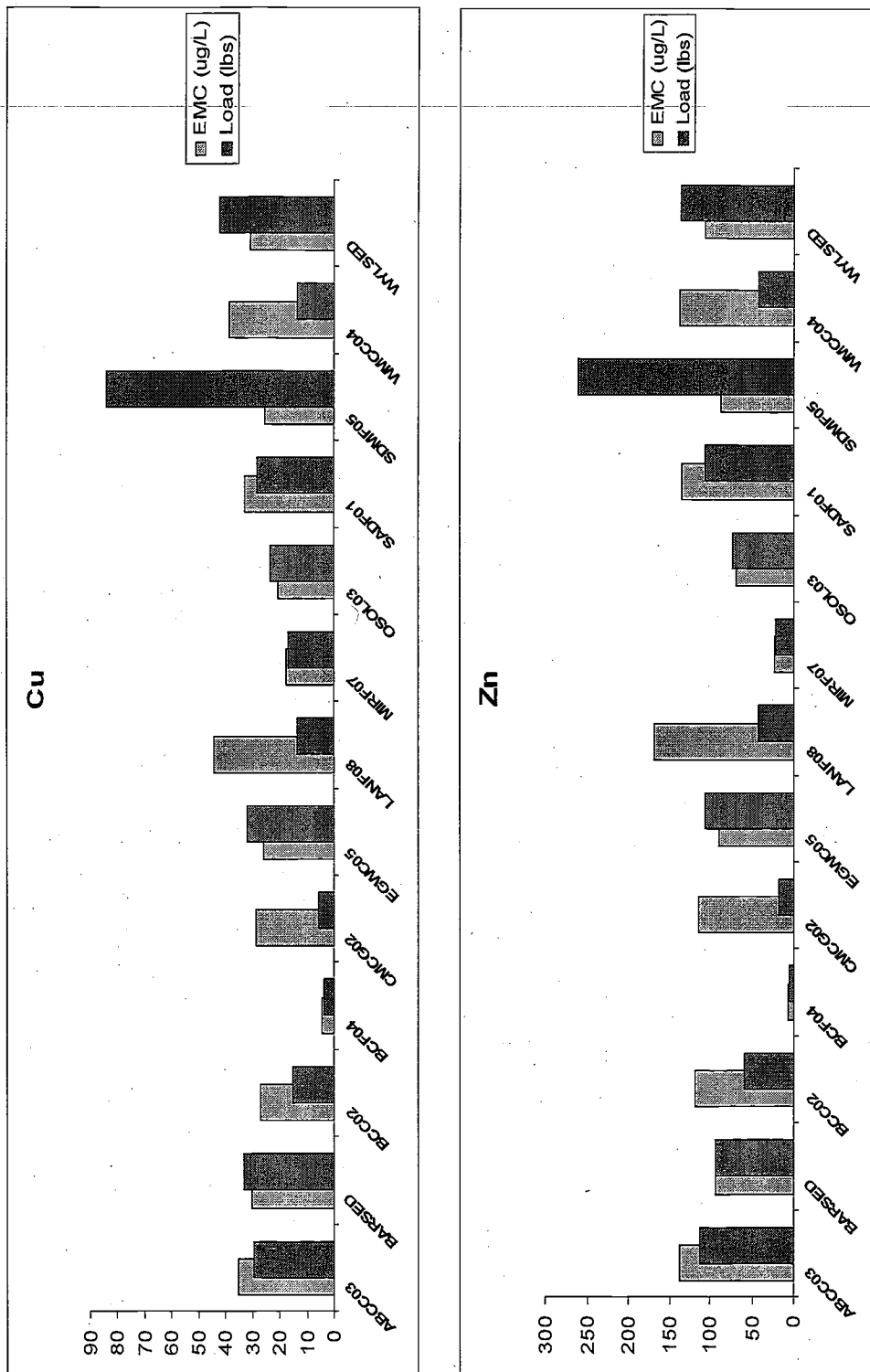
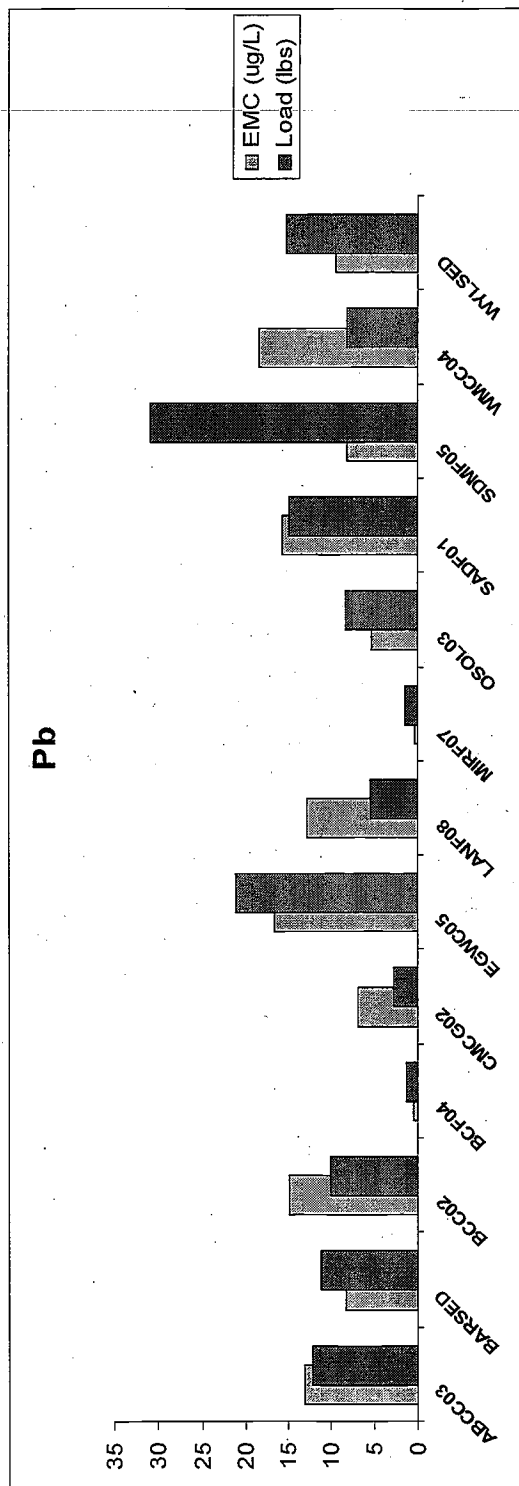


Figure 11.5a: Baseline Levels (Adjusted for TSS) of Total Metals at Long-Term Mass Loading Stations



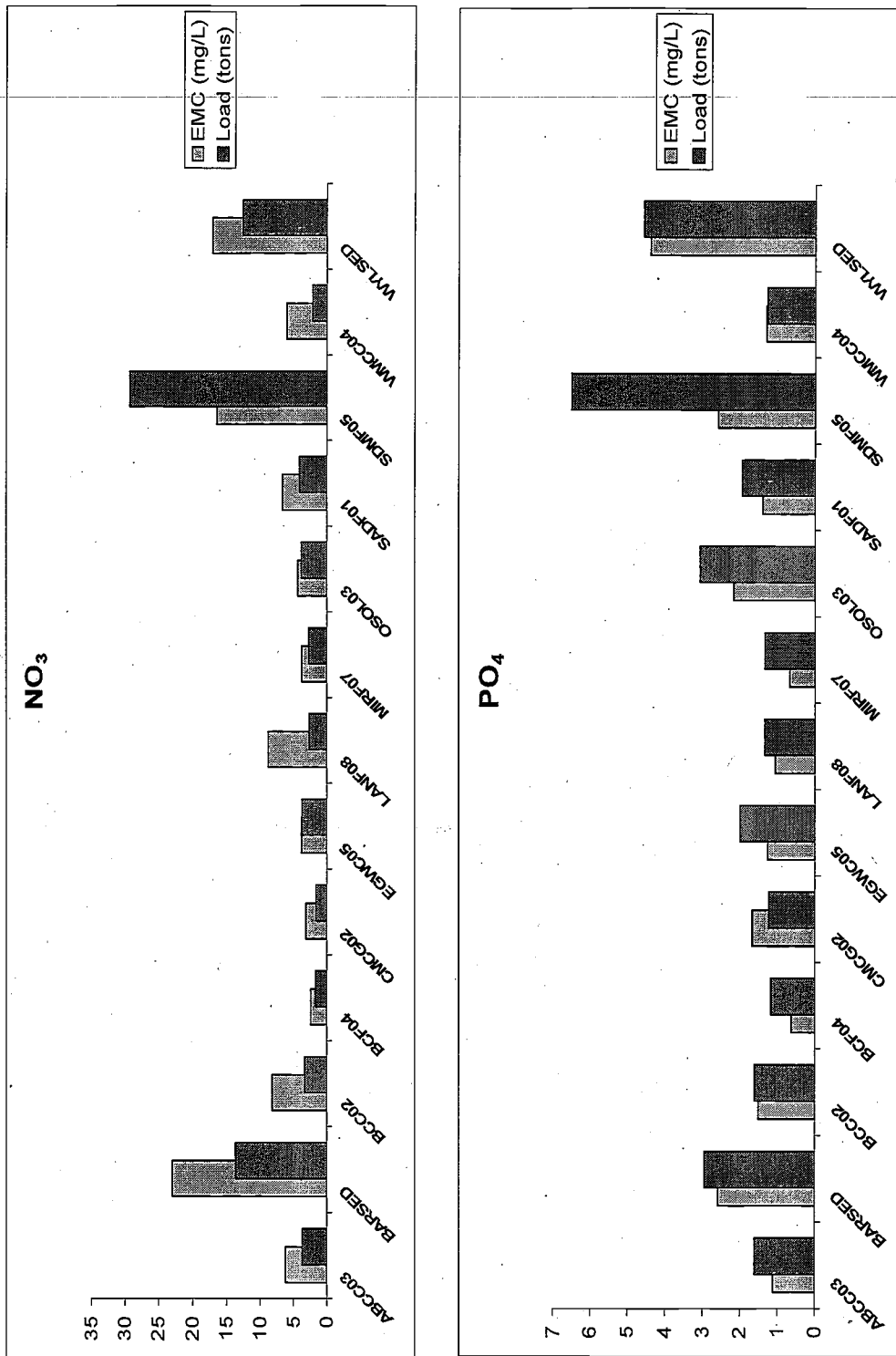
Loads are as pounds per sampling event.

Figure 11.5: Baseline Levels (Adjusted for TSS) of Total Metals at Long-Term Mass Loading Stations



Loads are as pounds per sampling event.

Figure 11.6: Baseline Levels (Adjusted for TSS) of Nutrients at Long-Term Mass Loading Stations



Loads are as tons per sampling event

SECTION 12, WATERSHED ACTION PLANS

12.0 WATERSHED ACTION PLANS

12.1 Introduction

The Third Term Permits have, with varying degrees of specificity, required the Permittees to develop and implement a watershed-based approach to urban stormwater management to complement the established jurisdictional-based approaches. In the area of the County under the jurisdiction of the San Diego Regional Board, Watershed Urban Runoff Management Plans (WURMPs) termed DAMP/Watershed Action Plans¹, have been prepared for each of the six principal watersheds. In the Santa Ana Regional Board area of the County, which has a long history of watershed planning focused on the Newport Bay, the Permittees were required to update Appendix N of the DAMP to reflect the implementation measures and schedules related to the fecal coliform TMDL.

Watershed management is the term used for the approach to water quality planning that places an emphasis on the watershed (the area draining into a river system, ocean or other body of water through a single outlet) as the planning area and looks to multi-jurisdictional solutions to problems that cut across programs and jurisdictions. In Orange County, these efforts focus additional effort on the highest priority water quality constituents of concern in each watershed.

The approach taken to develop the DAMP/Watershed Action Plans recognizes that the jurisdictional DAMP/LIPs and the DAMP/Watershed Action Plans represent the principal policy and program documents for two separate, but nonetheless similar and highly interdependent, water quality planning processes targeting the control of pollutants in urban runoff (see **Section 3.0, 2007 DAMP**). There is also recognition that these efforts are, in many watersheds in Orange County, supportive of a third planning process that is focused on achieving broader objectives such as watershed habitat restoration and connectivity rather than specific water quality outcomes.

There are 5 distinct watersheds within the Santa Ana Regional Board area which are identified below:

Region 8	Watershed Planning Area	Major Watercourses
Santa Ana	San Gabriel River/Coyote Creek	Coyote, Carbon, Fullerton, and Brea Creeks
	Anaheim Bay/Huntington Harbour	East Garden Grove Wintersburg Channel/Bolsa Chica Channel
	Santa Ana River (within Orange County)	Talbert Channel, Santiago Creek and Santa Ana River
	Newport Bay	San Diego Creek, Santa Ana Delhi Channel

¹ Previously termed DAMP/Watershed Chapters

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	Newport Coastal Streams	Buck Gully, Los Trancos Canyon Creek, Muddy Canyon Creek
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12.2 Accomplishments

Through the current Permit term, these watersheds (Figure 12.1) have been the focus of a number of continuing environmental restoration and watershed-based water quality planning efforts.

12.2.1 Environmental Restoration Planning Efforts

- **San Gabriel River - Coyote Creek:** Coyote Creek - Lower San Gabriel River Watershed Feasibility Study:

The Army Corps of Engineers (ACOE) has commenced a Feasibility Study for the Coyote Lower San Gabriel River Watershed. The purpose and goal of the Study is to develop a rehabilitation plan and identify projects for ecosystem restoration, recreation, water quality improvement and resolve some flooding issues. The study will take approximately three years to complete and will be cost shared (50-50) by the Corps and the local sponsor (County of Orange). The watershed is divided between the County of Orange and the County of Los Angeles. Los Angeles County Department of Public Works has also agreed to contribute to the local cost share.

- **Anaheim Bay/Huntington Harbour:** Westminster Watershed Management Plan

The ACOE is undertaking a comprehensive study of the Westminster Watershed including the East Garden Grove-Wintersburg Channel and the Bolsa Chica Channel in order to develop a rehabilitation plan that will investigate flood control, ecosystem restoration, recreation, water quality and shoreline protection. The Feasibility Study Phase is estimated to cost a total of \$5,500,000 and will take approximately three years to complete.

- **Santa Ana River:** Orange Coast River Park

The goal of the project, being promoted by Friends of Harbors, Beaches and Parks, is to create a shared management structure and identity for a 1000+ acre park at the mouth of the Santa Ana River. At the Park's upstream boundary, is Fairview Park located in the City of Costa Mesa. An extensive restoration project along with a proposed, water treatment and riparian habitat development is in the master plan for the park.

The Fairview Park Wetlands and Riparian Habitat Project include the restoration of approximately 30 acres containing the following four major design elements:

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- 17-acre riparian habitat area;
- 5-acre area of water treatment ponds for water quality improvement and percolation;
- 13-acre area of upland habitat including a 2-acre public park; and
- Water delivery system to the ponds and riparian area from a modified pump station along the Greenville-Banning Channel.

Existing dry weather flows, currently being pumped to Orange County Sanitation District (OCSD) from nearby Greenville-Banning Channel, will be diverted into the wetlands where it will flow through a series of engineered wetland channels and infiltration ponds. Water diverted into the wetlands will be infiltrated into the groundwater or removed through evapotranspiration as well as support riparian habitat throughout the park. The completed project will include walking paths, flow diversion structures and bridges located amongst a series of streams and channels covered with thick wetland vegetation.

- **Newport Bay: Upper Newport Bay Ecosystem Restoration Project**

The project includes expanding and deepening the two In-Bay Basins and relocating a tern island from the upper basin to the lower basin. Restoration measures include wetland creation and restoring degraded habitat. In addition, the project will support sediment TMDL goals. The project is cost-shared with the ACOE. The cost apportionment for this ecosystem restoration project require Federal interests to provide 65% of the total costs, which is estimated to be \$38.4 million, and the County of Orange as the local sponsor to pay 35% through California Coastal Conservancy Bond funds. Dredging commenced in spring 2006.

- **Newport Bay: Newport Bay/San Diego Creek Watershed Management Plan and Feasibility Study**

The ACOE is conducting a study to develop a comprehensive framework to improve the health of the Newport Bay/San Diego Creek watershed. The process will address the protection and enhancement of watershed habitats, flood protection, water quality improvements, and reduction of erosion and sedimentation. A draft Newport Bay/San Diego Creek Watershed Feasibility Study Report was released in October 2005 and will be finalized in 2006-07.

12.2.2 Watershed-Based Water Quality Planning Efforts

- **San Gabriel River / Coyote Creek: San Gabriel River Watershed Monitoring Workgroup**

The Los Angeles County Sanitation District is required, as a condition of its NPDES Permit, to work with all agencies and interested parties in developing a watershed-wide monitoring program for the San Gabriel River Watershed. The project's ongoing planning and implementation is coordinated by the Southern California

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Coastal Water Research Project (SCCWRP) and Brock Bernstein, PhD. A first round of sampling was completed in 2005 and a second round was completed in June of 2006. The County, as Principal Permittee, is participating in this workgroup which is facilitated by the Los Angeles River - San Gabriel River Watershed Council.

- **Santa Ana River: Talbert Channel and Lower Santa Ana River Water Quality Diversions and Investigation**

On October 15, 1999, the Santa Ana Regional Board issued a Section 13267 Directive to the County of Orange and five cities concerning bacteriological water quality impairments in the Talbert and Lower Santa Ana River watersheds that maybe affecting surfzone water quality. In response to the Regional Board's Directive, the County of Orange constructed dry weather urban runoff diversion projects in four flood control facilities [Huntington Beach Pump Station (D01PS1), Talbert Channel (D03), Santa Ana River (E01); and Greenville Banning Channel (D03)] for the diversion of all dry weather urban runoff in the Talbert - Lower Santa Ana River Watershed, an area of 16,575 acres. Similar diversion actions were taken by the City of Huntington Beach at a number of pump stations. The project goals were to divert dry weather urban runoff from the watershed year round and reduce the number of beach postings and closures due to high bacteria counts at the Huntington Beach State Beach.

On December 24, 2003, the Santa Ana Regional Board issued a second California Water Code Section 13267 letter to the County of Orange and five cities in the area of the Talbert and Lower Santa Ana River watersheds. The letter specifically requested a special investigation into any drains downstream of the diversions to determine if these non-diverted drains were contributing to bacteriological water quality impairments at Huntington State Beach. This letter was subsequently revised by the Regional Board on February 3, 2004 to rescind the 13267 requirements on two of the cities as their land area is entirely upstream from the point of diversion. The requested investigation was conducted in the Spring of 2004 and a full report was delivered to the Regional Board. The investigation determined that there were twenty one (21) non-diverted drains, but the majority did not show any evidence of discharge. In a September 10, 2004 letter from the Regional Board, a few drains were identified for follow-up investigations to ensure that no discharge was occurring. These follow-up investigations were conducted from 2004 through 2005 and a final report was delivered to the Santa Ana Regional Water Quality Control Board on July 29, 2005.

- **Newport Bay: Nitrogen and Selenium Management Program**

The Nitrogen and Selenium Management Program (NSMP) was launched by a group of watershed stakeholders, including all Watershed Permittees, in response to Order No. R8-2004-0021 (NPDES No. CAG998002) issued by the Santa Ana Regional Water Quality Control Board on December 20, 2004. Over the five year permit term, the NSMP Working Group is implementing a comprehensive work plan focusing on

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developing watershed based management strategies for groundwater inputs of selenium and nitrogen in the Newport Bay watershed. This work plan has been approved by the Executive Officer of the Santa Ana Regional Board and the key elements of the work plan include, (1) collecting additional data to fill knowledge gaps regarding the movement and impacts and selenium and nitrogen in the watershed, (2) examining Best Management Practices (BMPs) and treatment technologies that can reasonably and effectively be applied in the watershed, (3) developing an offset, trading, or mitigation program for both selenium and nitrogen, (4) using the increased knowledge and treatment opportunities developed in previous tasks to evaluate the Nutrient TMDL, and (5) if appropriate, develop a site specific objective for selenium.

The National Water Research Institute (NWRI) has assembled an independent advisory panel to evaluate key work products and provide recommendations to the NSMP Working Group. In particular, the independent advisory panel will be providing a recommendation on whether or not a site specific objective for selenium is appropriate for the Newport Bay watershed.

In addition to entities regulated by the permit, the Santa Ana Regional Water Quality Control Board, Orange County Coastkeeper, and Stop Polluting Our Newport (Dr. Jack Skinner) are serving as Participatory Members of the NSMP Working Group. As Participatory Members, these three entities are providing key public input and feedback to the NSMP Working Group but are not financially responsible for implementing the work plan.

The NSMP Working Group currently consists of twenty members:

- o County of Orange
- o Orange County Flood Control District
- o City of Costa Mesa
- o City of Irvine
- o City of Laguna Hills
- o City of Laguna Woods
- o City of Lake Forest
- o City of Newport Beach
- o City of Orange
- o City of Santa Ana
- 11. City of Tustin
- 12. California Dept. of Transportation
- 13. Irvine Ranch Water District
- 14. The Irvine Company
- 15. Golden State Water Company
- 16. Tustin Legacy Community Partners
- 17. Lennar
- 18. The Great Park Corporation
- 19. Nexus Construction Services
- 20. Maguire Properties

In a separate, but related effort, the Newport Bay Watershed Permittees, the Irvine Ranch Water District, and The Irvine Company funded a special study in the San Joaquin Marsh and San Diego Creek to investigate concentrations of selenium in key parts of the food web, including benthic invertebrates, plants, sediment, and water. The study was conducted by Dr. Alex Horne and the final report has been completed.

- **Newport Bay:** Newport Bay Watershed Nutrient Total Maximum Daily Load

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(TMDL)

The nutrient TMDL establishes targets for reducing the annual loading of nitrogen and phosphorus to Newport Bay by 50% and meeting the numeric and narrative water quality objectives by 2012. To achieve these targets, the TMDL establishes a number of interim targets requiring a 30% and 50% reduction in nutrients in summer flows by 2002 and 2007, respectively, and a 50% reduction in non-storm winter flows by 2012.

The Newport Watershed Permittees have evaluated compliance with the TMDL targets (Newport Bay Watershed TMDL Compliance Evaluation, Tetra Tech, July 2000). The report indicated significant compliance with the 2002 targets and slight nutrient loads in excess of the future targets. It concluded that current programs are working and that further minor program revisions will achieve all TMDL targets.

The findings of the compliance studies are further supported by nutrient loading studies that were conducted by the Principal Permittee in September 1999, June 2000, May 2001, and May 2003. These studies demonstrate compliance with the 2002 target based on extrapolation of the data collected to date. This assessment was verified when analysis of the summer 2002 water quality data illustrated the reduction of nutrient loading in the Newport Bay watershed was greater than the 30% reduction target.

In February 2000, the Principal Permittee on behalf of the Watershed Permittees, initiated the Regional Nutrient Monitoring Program (RMP) for the Newport Bay and its watershed pursuant to the requirements established by the Santa Ana Regional Board (Resolution 99-77 to establish an RMP pursuant to the TMDL). Annual data analysis reports have been submitted each November to document watershed nutrient concentrations and loadings, algal biomass and bay nutrient concentrations. Analysis of the RMP watershed and bay data indicate compliance with the 2002 and 2007 TMDL targets. At the request of the Regional Board, beginning in 2006, the Principal Permittee will begin submitting quarterly data analysis reports and data transmittals.

In addition to the routine watershed and bay monitoring, the RMP requires several special studies to be conducted. Progress on the special studies is described below.

- Newport Bay Watershed Nutrient TMDL – Dissolved Oxygen (DO) and Algae Distribution Grant Study

In March 2005 the Principal Permittee on behalf of the Watershed Permittees was awarded a \$250,300 Prop. 13 grant from the State Water Resources Control Board to conduct The Newport Bay Nutrient TMDL DO and Algae Distribution Study. The study characterized the dissolved oxygen and macroalgae regimes of Upper Newport Bay (UNB) by completing two special investigations identified in the Nutrient TMDL RMP. First, the spatial and temporal extent of hypoxia/anoxia

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in UNB will be determined. Then, to determine if there is a quantitative relationship between intertidal macroalgal abundance and the frequency of hypoxic events, macroalgal abundance will be estimated using remote sensing techniques during the period of deployment of DO sensors in UNB. These data are essential in determining the relationship, if any, between hypoxia/anoxia and macroalgal abundance. A final report is due at the end of October 2006.

- **Newport Bay Watershed Nutrient TMDL - Urban Nutrient Special Investigations**

A Proposition 13 grant was received in 2003 to fund a characterization study of the sources and magnitude of urban nutrient loading. The specific study objectives were to: (1) Quantify nutrient loading of dry weather runoff from urban residential and business areas which drain to Upper Newport Bay; (2) Identify and characterize runoff quality of specific urban activities and sources which contribute to urban nutrient loading from each study area, and (3) Estimate to what extent urban runoff quality may be influenced or compromised by infiltration of shallow groundwater into the drainage network. The grant amount was \$295,000 with \$100,000 matching funds from the Watershed Permittees. Field work for these investigations was completed in 2004, and draft final reports of research findings and project accomplishments were completed in the spring of 2006.

Mean TIN areal loading rates ranged between 0.029 - 0.415 lb/acre-year across study areas, while TN loading rates ranged between 0.242 - 1.228 lb/acre-year. Mean TP areal loading rates varied between 0.019 - 0.232 lb/acre-year. Areal loading rates were substantially lower in the Costa Mesa study areas than in the San Diego Creek watershed study areas for all three parameters. There was no apparent meaningful difference between loading based on land use (residential vs. business).

Findings in the Como Channel study area demonstrated that dry weather discharge and related contaminant loadings from confined pipe systems in areas of the San Diego Creek watershed should not be presumed to be exclusively from surface runoff. It was conclusively demonstrated that shallow groundwater infiltration into the storm drain system contributed 27% of dry weather discharge from the study area, and comprised a disproportionately high 84% of the NO₃/NO₂-N load of what was ostensibly an urban area discharge. This finding likely applies to all urban areas which overlie the nitrate-rich shallow groundwater area in the center of the San Diego Creek - Peters Canyon Wash watershed.

- **Newport Bay: Newport Bay Watershed Sediment TMDL**

The TMDL allocation for sediment in the Newport Bay Watershed was approved in March 1999. The objectives of the TMDL are to reduce the annual average sediment

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load in the San Diego Creek watershed from a total of 250,000 tons per year to 125,000 tons per year, thereby reducing the sediment load to Newport Bay to 62,500 tons per year and limiting sediment deposition in the drainages to 62,500 tons per year within 10 years (a 50% reduction) and to lower the frequency of dredging within the Bay.

To comply with the sediment TMDL, an annual report has to be submitted to the Santa Ana Regional Board by November 15 of each year verifying that the basins have at least 50% capacity and an annual compilation of sediment monitoring data and TMDL compliance analysis is required by February 27 of each year.

In general, the available data suggests that sediment loads in the San Diego Creek watershed have been reduced significantly from rates recorded in the pre-TMDL period. Since implementation of the TMDL, the average suspended sediment load measured at San Diego Creek at Campus Drive has been approximately 55,360 tons per year.

- **Newport Bay:** Newport Bay Watershed Fecal Coliform TMDL

The fecal coliform TMDL establishes a long-term, prioritized, phased approach to meeting recreational contact (REC1) and shellfish harvesting (SHELL) water quality standards in Newport Bay. In response to the 13267 letter, dated January 7, 2000, from the Santa Ana Regional Board, the Newport Watershed Permittees, IRWD and The Irvine Company are currently supporting studies and monitoring in the Bay that are expected to result in the development of a TMDL implementation plan.

To date, work has been carried out in a collaborative manner by the Newport Watershed Permittees with technical support from the Irvine Ranch Water District and their consultants, Eisenberg, Olivieri and Associates (EOA) and Resource Management Associates (RMA). In September 2001, EOA and RMA issued their final report entitled Public Health Risk Assessment for the Newport Bay Watershed: Recreational Contact and Microbial Risk. Reported findings are that exceedances of Basin Plan fecal coliform objectives for REC-1 beneficial use are temporally sporadic and geographically limited and that they generally occur during the time of year when REC-1 use is low or in areas of the bay where the level of body contact recreation is low or prohibited. Additionally, the risk of enteric viral disease from body contact recreation in Newport Bay is well below EPA's "accepted illness rate" of 19 illnesses per 1,000 swimmers for recreation in marine waters. The report also indicates that the urban runoff identified in the Clean Water Act 303(d) listing as the likely source of pathogens in Newport Bay do not substantially impact the risk to public health from body contact recreation.

A Proposition 13 Grant has been obtained to conduct a set of field studies that will provide data necessary to identify and prioritize urban and natural sources of fecal coliform to the Bay. This data will provide the basis for the formulation of a Fecal Coliform Source Management Plan needed to implement the fecal coliform TMDL

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for Newport Bay. The field studies are designed to provide information on Bay-wide impact of fecal indicator bacteria from urban and natural sources, measurement and prioritization of specific urban sources in Lower Bay, estimates for the magnitude and kinetics of within-Bay natural sources and processes that affect the concentration of fecal indicator bacteria in the water column, and information on the community structures and species abundance of *Enterococcus* and relatedness of *E. Coli* strains in the bay. The grant award amount for the studies is \$780,000 with a \$50,000 match provided by the Watershed Permittees and others.

- **Newport Bay Fecal Coliform TMDL - Shellfish Harvesting Beneficial Use Assessment**

The shellfish harvesting beneficial use assessment was initiated in 2003 with the goal of developing recommendations for prioritizing areas within Newport Bay for purposes of evaluation and implementation of cost-effective and reasonable control actions. The primary objectives of the assessment are to: 1) Identify historic areas of bivalve mollusk shellfishing (shellfishing) in Newport Bay; 2) Establish the existing level of the shellfishing resource in Newport Bay; 3) Characterize current levels of shellfish collection (for consumption and bait) as a beneficial use in Newport Bay; 4) Investigate impediments to, and the possibility of enhancing the potential for, increased levels of shellfish collection in Newport Bay, and; 5) Document the results of the investigation in a manner that will be useful to the Regional Board for decision-making purposes.

Both qualitative and quantitative surveys were conducted to identify the current extent of intertidal shellfish resources in Newport Bay. The results of these surveys indicate large differences in the composition and abundance of shellfish in Lower Newport Bay compared to Upper Newport Bay. Shellfish species that are of potential interest to shellfisherman for consumption are predominantly located in Lower Newport Bay, despite the fact that this region has only 5 percent of the intertidal habitat found in Upper Newport Bay.

Two major factors were identified that prevent utilization of this resource by shellfishermen. The most significant is that the populations were found almost exclusively in areas with eelgrass. These areas are not open to shellfishing since Section 30.10 under Title 14, Chapter 4, Article 1 of the California Code of Regulations prohibits cutting or disturbance of eel grass. A second factor was the size composition in the Bay. Only three out of 419 littleneck clams collected from Lower Newport Bay met the legal minimum size of 38.1 mm (1.5 inches) under California's Ocean Fishing Regulations. One-third of the Venus clams that were collected from this region met the size limits for harvesting but overall abundances were 25% of the littleneck clam population. Many factors may have influenced the size composition of littleneck clams including possible differences in annual recruitment and survival of littleneck clams over the past five to 10 years.

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The beneficial use data collection program surveyed 1,100 individuals. Over 99% of those respondents who collect shellfish in Newport Bay reported doing so for fishing bait. Mussels collected from piers, pilings, and docks are the most common shellfish targeted by fishermen. On rare occasions, fishermen were also observed to use clams as bait. Only two individuals interviewed reported that they had consumed shellfish. In both cases, the shellfish collected and consumed were mussels. Based upon the beneficial use surveys, it is clearly evident that intertidal clam populations in Newport Bay are not currently being used for human consumption.

The cost of the Beneficial Use Assessment was \$453,000 provided by the Watershed Permittees and others.

- **Newport Bay:** Newport Bay Watershed Toxics TMDL

On June 14, 2002, EPA Region 9 established the Toxics TMDL for the Newport Bay Watershed. The Santa Ana Regional Board is currently splitting the EPA promulgated Toxics TMDL into five separate constituent and geographically specific TMDLs. The five resulting TMDLs will include (1) diazinon and chlorpyrifos, (2) organochlorine compounds, (3) selenium, (4) metals, and (5) Rhine Channel. Each of these individual TMDLs must proceed through the full approval process before they are officially adopted and made a part of the Basin Plan. Currently, the only TMDL to complete the approval process is the diazinon and chlorpyrifos TMDL. The Santa Ana Regional Board approved an amendment to include the diazinon and chlorpyrifos TMDL on April 4, 2003.

A Pesticide Research and Identification of Source and Mitigation (PRISM) grant was received in 2005 to evaluate legacy organochlorine pesticide mass loadings with respect to geographic location, flow, sediment particle size, and total organic carbon within the watersheds. The information gathered by the study will assist with the evaluation of waste load allocations and the development of an implementation plan for the Organochlorine Compounds TMDL. The PRISM Grant provides \$188,254 for this study with a match of \$9,906 by the Watershed Permittees and others.

Samples from approximately five storms were collected during the 2005-06 storm season (September - April). Storm and dry season sampling will conclude in 2006 with a final report due in 2007.

- **Newport Coastal Streams:** City of Newport Beach Initiatives

The Newport Coast Watershed area covers about 10 square miles and eight coastal canyons it extends south of Corona Del Mar in Newport Beach to El Morro Canyon in Crystal Cove State Park. Two of the canyons are 303(d) listed and the entire watershed drains to one of two ASBS's (the Newport Beach Marine Life Refuge and/or the Irvine Coast Marine Life Refuge). The following actions are under way by the City of Newport Beach to address canyon degradation, ASBS concerns and

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the 303(d) listing:

- Initiated a erosion control project in Buck Gully;
- Performing canyon stability inspections of Buck Gully, Los Trancos and Muddy Creek;
- Preparing a Watershed Management Plan for each of the eight canyons;
- Performing a series of investigations to determine primary sources of degradation to the ASBS's (Public Use Study, Canyon flows and water quality, cross contamination investigation from Newport Bay);
- Reducing negative impacts to the two Marine Life Refuge Areas (ASBS's) by reducing unnatural dry-weather canyon flows and improving storm-flow water quality;
- Working with IRWD, Coastkeepers, California Department of Parks and Surfriders to expand educational and training programs and expanding the City's Tide Pool Ranger Program;
- Implementing a continuing program of flow and water quality monitoring for the canyons;
- Implementing a suite of canyon water quality BMP's (wetland improvements, native plantings, grade control structures, retention basins, a watershed ET controller retrofit program), and
- Implementing a series of structural and non-structural BMP's (increased WQ enforcement, increased street sweeping, installation of catch basin screens, and educating the community relative to over-watering and runoff)

In addition, the following actions have been completed:

- A canyon stabilization project in Morning Canyon;
- A draft groundwater seepage study;
- A draft Landscape and Irrigation Ordinance (to be reviewed with City Council), and
- A Runoff Reduction Program to address dry-weather runoff.

12.3 Assessment

Four separate, but nonetheless highly interrelated, planning processes have continued to develop through the period of the Third Term Permits. These processes are (1) DAMP/LIP focused Countywide implementation of a baseline of BMPs, (2) DAMP/Watershed Action Plan focused on enhanced BMP implementation targeting specific constituents of concern, (3) IRWD's Natural treatment system designed to treat dry weather runoff with man-made wetlands. The natural treatment system will rely on natural ecosystems to remove sediment, nutrients, pathogens and other contaminants from the runoff and prevent these contaminants from reaching Upper Newport Bay, and (4) a process that is focused on achieving broader objectives such as watershed habitat restoration and connectivity rather than specific water quality outcomes. The first three processes align with the CWA's interim goal, which is to attain water quality sufficient to provide for the protection and propagation of fish, shellfish, and wildlife and for recreation in and on the water. The third process aligns with the overarching objective of the CWA which is to restore and maintain the chemical, physical

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and biological integrity of the nation's waters. While the interim goal is subordinate to the broader objective, it nonetheless continues to be the primary focus of the Permittees efforts since it is the basis of the long-established NPDES permitting framework to which the Permittees, as a consequence of Section 402(p) of the CWA, are subject.

12.3.1 Environmental Restoration Planning Efforts

The Permittees' environmental restoration efforts focused on ecological outcomes are broad stakeholder initiatives rather than permit compliance driven planning processes, and are predominantly cooperative projects with the ACOE. Federal funding of ACOE watershed management and restoration initiative will continue to be a major determinant of progress with respect to these planning efforts.

12.3.2 Watershed-Based Water Quality Planning Efforts

The Permittees' watershed-based water quality planning efforts are focused on water quality standard attainment; involve the Permittees and other regulated entities, and represent collective and cooperative compliance efforts. In the Santa Ana Regional Board area of Orange County, TMDL promulgation (first addressed in **Appendix N** of the **DAMP**) has resulted in two regulatory approaches, specifically (1) California Water Code 13267 Directives and (2) the incorporation TMDL provisions for nutrients and fecal coliform in the Newport Bay Watershed into the Third Term Permit. The Permittees' response to (and full compliance with) these regulatory initiatives has preceded the development of **DAMP/Watershed Action Plans**. In south Orange County the reverse situation has occurred since the specific WURMP requirements of the Third Term Permits have preceded TMDL development and implementation and led to the creation of six **DAMP/Watershed Action Plans**. These plans are deemed to usefully provide:

- A holistic account of all water quality protection and management activities in the watershed;
- A basis for developing establishing and communicating common goals for the watershed with an action plan to achieve them, and
- A framework for monitoring and assessing the progress of projects individually and cumulatively at the watershed scale.

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ROWD Commitment

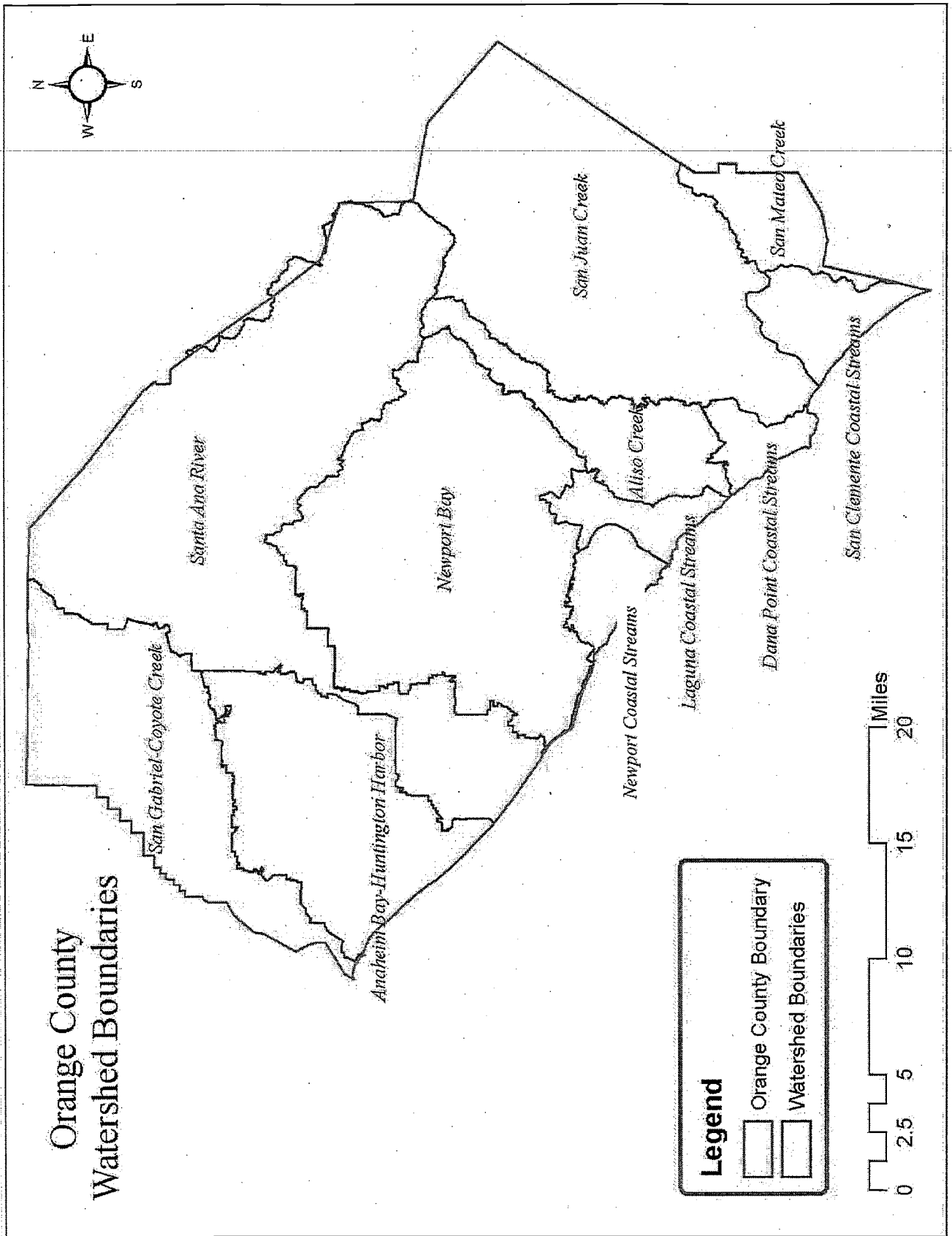
- Complete **DAMP/Watershed Action Plans** for all 11 Orange County watersheds (See Appendix A: Model Watershed Action Plan prepared as Newport Bay Watershed Action Plan²).

12.4 Summary

The watershed-based approach to water quality planning has been advocated by many constituencies for over 30 years. In Orange County, this approach has been the basis of efforts to protect and manage Newport Bay, notably for sediment, for almost the same period of time. With the completion of **DAMP/Watershed Action Plans** for the south Orange County watersheds and with a number of areas of Orange County facing TMDL implementation over the period of the Fourth Term Permits, these documents essentially represent implementation plans for urban sources of constituents of concern.

² The Newport Bay Watershed Action Plan is being presented as a Model DAMP/WAP. It will be presented as a final document with the Annual Progress Report in November, 2006.

Figure 12.1



SECTION 13.0, SUMMARY

13.0 SUMMARY

13.1 Introduction

From the various sources of information that were used to evaluate program effectiveness, three themes have emerged that frame the Permittees approach to developing the proposed 2007 DAMP. These themes are:

Demonstrating the iterative management approach: Adapting the management program to more effectively address urban sources of pollutants that are causing or contributing to exceedances of water quality standards;

Enhancing Implementation: Improving program implementation through incorporation of auditable environmental management system concepts; and,

Establishing watershed-based water quality planning: On a Countywide basis, creating two separate, but nonetheless highly inter-related, water quality planning processes to address urban sources of pollutants.

Each of these themes is the basis for two types of programmatic recommendations, specifically (1) ROWD Commitments (new programmatic commitments to be developed and implemented over the period of the Fourth Term Permits) and (2) DAMP Modifications (improvements to existing program commitments incorporated into the proposed 2007 DAMP).

13.2 Demonstrating Iterative Management

ROWD Commitments:

- Develop Model Integrated Pest Management, Pesticide and Fertilizer Guidelines into a Model Program (rather than guidelines) with implementation goals and including model contract language (see **Section 5.3.2**).
- Develop recommendations for the selection and installation of drain inlet screens (see **Section 5.3.3**).
- Develop model language for municipal trash collection and haulage contracts that address water quality protection issues (see **Section 5.3.3**).
- Develop and implement BMPs for architectural uses of copper and zinc (see **Section 7.3.1**).

13.3 Enhancing Implementation

ROWD Commitments:

- Prepare a training schedule and define expertise and competencies for
-

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jurisdictional program manager positions (see **Section 2.3.2**).

- Prepare a fiscal reporting strategy based upon an audit of the fiscal analysis reporting section of the PEA, to better define the expenditure and budget line items included in the fiscal report (see **Section 2.3.4**).
 - Prepare metric definitions and guidance to improve efficacy of the assessment process.
 - Standardize SDR and SAR definitions of "High" priority and develop prioritization process that is better predicated on the threat (diminished by BMP implementation) posed by the facility, and consider the presence of "constituents of concern" (see **Section 5.3.1**).
 - Redefine IPM (pesticide use) indicators (see **Section 5.3.1**).
 - Prepare guidance documentation and clarify requirements or conceptual Project WQMP (see **Section 7.3.1**).
 - Prepare guidance and training as needed on the recordation process (timing and appropriate documents to use) and develop recommendations for appropriate methods to employ to enable the Permittees to enforce the approved WQMP against subsequent property owners (see **Section 7.3.1**).
 - Develop library of BMP performance reports (see **Section 7.3.1**).
 - Develop standard design checklist/plans/details for source and treatment control BMPs (see **Section 7.3.1**).
 - Develop recommendations/guidance for enhanced Model WQMP language regarding Site Design BMPs (see **Section 7.3.1**).
 - Evaluate the NTS approval process and develop recommendations for streamlining regulatory agency approval of regional treatment control BMPs (see **Section 7.3.1**).
 - Prepare a training schedule including defined expertise and competencies for staff with WQMP review and approval responsibilities (see **Section 7.3.1**).
 - Prepare a training schedule including defined expertise and competencies for construction inspectors (see **Section 8.3.1**).
 - Develop a more detailed prioritization process to improve standardized reporting and to support re-direction of inspection resources to significant sources of priority constituents of concern (see **Section 9.3.1**).
-

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- Develop effective alternative to re-inspection such as self-certification (see **Section 9.3.1**).
- Prepare defined expertise and competencies for authorized inspector positions and develop a training schedule to meet these requirements (see **Section 9.3.1**).

DAMP Modifications:

- Revised the DAMP for greater consistency with established Environmental Management System (EMS) principles and improved accessibility to different constituencies and levels or readership (see **Section 2.3.3**).
- Revised DAMP **Section 3.0 plan improvement process** to detail iterative process for DAMP improvement (see **Section 3.3.1**).
- Defined "fixed facilities," "field programs," and "drainage facility sites" (see **Section 5.3.1**).
- Eliminated Environmental Performance Reporting (EPR) program (which is duplicative of Model Municipal Activities Program) (see **Section 5.3.1**).
- Revised Model WQMP Table 7.II.6 for latest information on BMPs and clarity (see **Section 7.3.1**).
- Evaluated and revised (as necessary) prioritization provisions for Countywide consistency (see **Section 7.3.1**).
- Provided definitive construction site prioritization guidance (see **Section 8.3.1**).
- Clarified inspection frequencies; violation definitions and re-inspection (see **Section 9.3.1**).
- Provided definitive industrial and commercial facility descriptions (see **Section 9.3.1**).

13.4 Establishing Watershed-Based Water Quality Planning

ROWD Commitment:

- Complete DAMP/Watershed Action Plans for all 11 Orange County watersheds (see **Section 12.3.2**).
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Attachment 35

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. 90-71

NPDES No. CA 8000180

Waste Discharge Requirements
for
the County of Orange, the Orange County Flood Control District
and
the Incorporated Cities of Orange County Within the Santa Ana Region
Areawide Urban Stormwater Runoff
Orange County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On March 15, 1990, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, La Palma, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as dischargers), submitted NPDES Application No. CA 8000180 for an areawide stormwater discharge permit under the National Pollutant Discharge Elimination System (NPDES).
2. The 1972 Clean Water Act (CWA) recognized the need to prohibit the discharge of pollutants to surface water bodies from point sources such as industrial facilities and municipal sewage treatment plants. The discharges of pollutants from point sources are regulated by the NPDES permit system, which required technology-based controls for treatment of wastewater. Stormwater point source discharges were exempt from the NPDES permitting requirements unless these discharges were contaminated by industrial/commercial activity. The Regional Board recognized the water quality problems associated with stormwater discharges from industrial facilities and has issued a number of stormwater permits for such facilities in accordance with the EPA regulations.
3. In 1976, the United States Environmental Protection Agency (EPA) issued new regulations establishing a comprehensive permitting program for all stormwater discharges except for rural runoff uncontaminated by industrial/commercial activity. Channelized stormwater runoff from rural areas continued to be defined as nonpoint source unless designated otherwise by the permitting authority.

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4. Since 1976, EPA has issued several revisions to the stormwater regulations. Section 405 of the Water Quality Act (WQA) of 1987 added Section 402(p) to the CWA. Pursuant to Section 402(p)(4) of the CWA, EPA is required to promulgate regulations for stormwater permit applications for stormwater discharges associated with industrial activities and municipal separate storm drain systems serving a population of 100,000 or more. Section 402 (p)(4) of the CWA also requires dischargers of stormwater associated with industrial activities and municipal separate storm drain systems serving a population of 250,000 or more to file stormwater permit applications by February 4, 1990.
5. On December 7, 1988, EPA published its proposed regulations in the Federal Register to solicit public comments. Final regulations are tentatively scheduled to be promulgated on July 20, 1990 and to be published in the Federal Register on August 4, 1990. In the absence of final stormwater regulations, a permit governing municipal stormwater discharges should meet both the statutory requirements of Section 402 (p)(3)(B) and all requirements applicable to a NPDES permit issued under the issuing authority's discretionary authority in accordance with Section 402 (a)(1)(B) of the CWA.
6. Studies in urban areas have shown that urban runoff typically contains significant quantities of pollutants. There are a number of water quality segments in the Orange County drainage areas which could be adversely impacted by stormwater discharges and urban runoff. In some areas, such as Newport Bay, the beneficial uses have been impaired due to pollutant discharges. A comprehensive stormwater and urban runoff management and regulatory program is essential for the protection of the water resources of the Region. The County of Orange, the cities in Orange County, and the Regional Board have recognized this fact, and as a first step towards protecting water quality in the area, a comprehensive management program is being developed. This order outlines the existing programs and specifies additional requirements to achieve water quality objectives for the Orange County drainage areas. The intent of this permit is to regulate pollutant discharges and improve water quality in the Region in a timely manner.

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7. Within the Santa Ana Region, the OCFCD serves a population of approximately 2.0 million, occupying an area of approximately 511 square miles (approximately 128 square miles of unincorporated areas and 383 square miles of incorporated areas). The District's systems include an estimated 400 miles of storm drain systems. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. The project area is shown on Attachment "A". The major storm drain systems and drainage areas in Orange County which are within this Region are shown on Attachment "B". A portion of the Orange County drainage area is within the jurisdiction of the San Diego Regional Board and is regulated under Order No. 90-38, NPDES No. CA 0108740, issued by the San Diego Regional Board.
8. The discharges consist of surface runoff generated from various land uses in all the hydrologic drainage areas which discharge into water bodies in Orange County. The quality of these discharges varies considerably and is affected by land use activities, basin hydrology and geology, season, the frequency and duration of storm events, and the presence of illegal disposal practices/illicit connections. The constituents of concern and significance in these discharges are: total and fecal coliform, enterococcus, total suspended solids, biochemical oxygen demand (BOD), chemical oxygen demand (COD), total organic carbon (TOC), oil and grease, heavy metals, nutrients, base/neutral and acid extractibles, pesticides, herbicides, petroleum hydrocarbon components, and pH.
9. There are several entities whose land/facilities drain into the Orange County storm drain systems. The County of Orange has control over a large portion of the storm drain systems and has agreed to be the major responsible party in implementing the provisions of this order. The incorporated cities within the county have also agreed to cooperate with the county in controlling and improving the quality of urban runoff from their respective areas. The County of Orange has been named as the "principal permittee" and the OCFCD and the incorporated cities have been named as "co-permittees". Attachment "C" lists the incorporated cities with their 1990 estimated populations. Of the 23 cities listed, there are seven cities with an estimated 1990 population of over 100,000.

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10. Due to the enormous variability in stormwater quality and the complexity of the urban runoff management program, this areawide stormwater permit is categorized as a major NPDES permit. This areawide stormwater permit requires all entities discharging stormwater/urban runoff into the storm drain systems or any surface water bodies to have appropriate controls for proper management of stormwater runoff. The Regional Board has the discretion and authority to require non-cooperating entities to participate in this areawide permit or obtain individual stormwater discharge permits, pursuant to 40 CFR 122.26(a). The entities listed in Attachment "D" are considered as potential dischargers of stormwater to the Orange County drainage areas. It is expected that these entities will also work cooperatively with the County of Orange to manage urban stormwater runoff.
11. The County of Orange, as the "principal permittee", will obtain the cooperation of all entities in implementing the provisions of this order. The dischargers have agreed upon the responsibilities as outlined in the draft May 16, 1990 Implementation Agreement. In general, the County of Orange, the "principal permittee", will be responsible for preparing operating budgets, preparing and monitoring the implementation programs, and coordinating and submitting reports to the Regional Board. The OCFCD and the incorporated cities, the "co-permittees", will develop site-specific compliance requirements, perform compliance monitoring and inspections, submit storm drain maps and compliance reports to the County of Orange, and exercise enforcement authority for achieving compliance.
12. The County of Orange obtains its authority to control pollutants in stormwater discharges, to prohibit illegal discharges/illicit connections, to control spills, and to require compliance and carry out inspections of the storm drain systems in the County of Orange from the Orange County Flood Control Act, Orange County Water Pollution Ordinance, and various county ordinances which address industrial wastes and waste discharges within the unincorporated areas of Orange County and contract cities. The "Co-Permittees" have various forms of legal authority in place, such as charters, State Code provisions for General Law cities, city ordinances, and applicable portions of municipal codes and the State Water Code, to regulate stormwater/urban runoff discharges.

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13. A Water Quality Control Plan was adopted by the Regional Board on May 13, 1983. The Plan contains water quality objectives and beneficial uses of waters in the Santa Ana Region. On July 14, 1989, the Regional Board adopted a Basin Plan amendment, incorporating revised beneficial use designations for the ground and surface waters of the Region.
14. The State Water Resources Control Board (State Board) adopted a Water Quality Control Policy for the Enclosed Bays and Estuaries of California on May 16, 1974. The policy provides that the discharge of industrial process waters to enclosed bays and estuaries shall be prohibited. Stormwater and urban runoff are not considered industrial process waters for the purpose of that policy.
15. The 1988 California Ocean Plan, as amended on March 22, 1990, contains revised water quality objectives for California ocean waters in accordance with Section 303(c)(I) of the Clean Water Act and Section 13170.2(b) of the California Water Code.
16. The requirements contained in this order are necessary to implement the Ocean Plan and the Water Quality Control Plan.
17. An attempt has been made to incorporate all of the essential elements of the proposed federal stormwater regulations in this permit.
18. Stormwater discharges to the storm drain systems in Orange County are tributary to various water bodies of the state. The identified water bodies are as follows:

Inland Surface Streams

- a. Santa Ana River¹, Reaches 1 and 2,
- b. Silverado Creek,
- c. Santiago Creek, Reaches 1, 2, 3, and 4,
- d. San Diego Creek, Reaches 1 and 2,
- e. San Joaquin Freshwater Marsh,

¹ Stormwater/urban runoff discharged from the storm drain systems operated by the Counties of San Bernardino and Riverside drain into the Santa Ana River at Reaches 3, 4, 5, and 6.

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18. (cont'd)

- f. All other tributaries to these Creeks: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash

Bay, Estuaries, and Tidal Prisms

- g. Anaheim Bay,
h. Sunset Bay,
i. Bolsa Bay,
j. Lower and Upper Newport Bay,
k. Tidal Prism of Santa Ana River (to within 1000 feet of Victoria Street) and Newport Slough,
l. Tidal Prism of San Gabriel River (River Mouth to Marina Drive),
m. Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters (e.g. Huntington Harbour)

Ocean Waters

Nearshore Zone

- n. San Gabriel River to Poppy Street in Corona Del Mar,
o. Poppy Street to Southeast Regional Boundary,

Offshore Zone

- p. Waters between Nearshore Zone and Limit of State Waters,

Lakes and Reservoirs

- q. Anaheim Lake,
r. Irvine Lake (Santiago Reservoir)
s. Laguna, Lambert, Peters Canyon, Rattlesnake, Sand Canyon, and Siphon Reservoirs.

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18. (cont'd)

The beneficial uses of these water bodies include municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), groundwater recharge, navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), ocean commercial and nonfreshwater sportfishing (COMM), warm freshwater habitat (WARM), cold freshwater habitat (COLD), preservation of areas of biological significance (BIOL), wildlife habitat (WILD), preservation of rare and endangered species (RARE), marine habitat (MAR), and shellfish harvesting (SHELL). The beneficial uses of individual water bodies are shown on Attachment "E".

19. Numeric and narrative water quality standards exist for these water bodies. Currently, this permit does not contain numeric limitations for any constituents because the impact of stormwater discharges on the water quality of the above named receiving waters has not been fully determined. Extensive water quality monitoring and analysis of the data are essential to make that determination. This order requires the dischargers to continue to monitor the stormwater discharges or begin monitoring as necessary, and to analyze the data. Additionally, the order also requires development and implementation of best management practices² (BMPs) in accordance with the WQA of 1987. It is anticipated that with the implementation of BMPs by the dischargers, the pollutants in the stormwater runoff will be reduced and the quality of the receiving waters will be improved. The ultimate goal of the urban stormwater runoff management program is to attain water quality consistent with the water quality objectives for the receiving waters to protect the beneficial uses.

² Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of stormwater runoff pollution.

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20. The County of Orange has an active surface water quality monitoring program in the permit area. Dry weather sampling is performed bimonthly and wet weather sampling is performed during significant storm events (>0.5 inches of rainfall). Stormwater runoff samples collected are analyzed for nutrients, trace metals, specific conductance, dissolved oxygen, temperature, and pH. Sediment samples are also collected and analyzed for radiochemical constituents (only at Huntington Harbour), organics, and trace metals on a semi-annual basis. This monitoring program includes 21 water quality monitoring stations, 17 water level stations (12 of which are stream gaging stations), and 31 precipitation stations. Most of the water quality monitoring stations are located at storm drain systems associated with drainage areas in which land use activities have been identified to significantly impact the beneficial uses of waters in Orange County. These drainage areas, characterized as agricultural, commercial, and industrial, are mainly located upstream of Newport Bay. Those pollutants that have been identified to cause significant threat to the water quality of Newport Bay include nutrients (especially nitrates), pesticides, herbicides, and suspended solids.
21. With respect to industrial activities, the Regional Board currently regulates discharges of point source process wastewater and non-process wastewater and stormwater to storm drain systems through NPDES permits. The Regional Board is proposing to regulate three major nurseries discharging irrigation tail water to San Diego Creek by issuing waste discharge requirements. Point source discharges including stormwater will continue to be regulated by the Regional Board. Industrial stormwater dischargers are required to cooperate with the County of Orange to control the discharge of pollutants in the stormwater runoff from individual facilities or to obtain individual industrial stormwater discharge permits from the Regional Board.
22. Recognizing the need for public involvement and participation in the development and implementation of an effective stormwater/urban runoff management program, the Regional Board will conduct at least one workshop each year during the term of this permit. The purposes of the workshops will be to solicit comments and to inform the public of the progress of the program. Written comments submitted will be forwarded to the State Board, EPA, and the County of Orange for their review and comments.

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23. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
24. The Regional Board has considered an antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, for this discharge. The Regional Board finds that the stormwater discharges are consistent with the federal and state antidegradation requirements and a complete antidegradation analysis is not necessary.
25. The Regional Board has notified the dischargers and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
26. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the dischargers, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

I. RESPONSIBILITIES OF PRINCIPAL PERMITTEE

The principal permittee shall be responsible for the overall program management, including the following:

1. Administer the Orange County Water Pollution Ordinance.
2. Conduct water quality and hydrographic monitoring of the storm drain system outfalls as agreed upon by the Executive Officer.
3. Develop uniform criteria for storm drain system inspections.
4. Conduct inspections of the storm drain systems within its jurisdiction.
5. Implement management programs, monitoring programs, and implementation plans within its jurisdiction as required by this order.

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I. RESPONSIBILITIES OF PRINCIPAL PERMITTEE - CONT'D

6. Prepare and submit to the Regional Board all the reports, plans, and programs as required in this order.
7. Monitor the implementation of the plans and programs and determine their effectiveness in attaining water quality objectives.
8. Coordinate all the activities with the Regional Board.
9. Enact legislation and ordinances as necessary to establish legal authority.
10. Obtain public input³ for any proposed management and implementation plans.
11. Pursue enforcement actions as necessary to ensure compliance with stormwater management programs and implementation plans.
12. Respond to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections etc. to prevent or reduce the discharge of pollutants to storm drain systems and waters of the United States.

II. RESPONSIBILITIES OF THE CO-PERMITTEES

The co-permittees shall be responsible for the management of storm drain systems within their jurisdictions, including the following:

1. Conduct storm drain system inspections in accordance with the uniform criteria developed by the principal permittee.
2. Conduct and coordinate with the principal permittee any surveys and characterizations needed to identify the pollutant sources and drainage areas.
3. Review and approve management programs, monitoring programs, and implementation plans.

³ Public input is demonstrated by: (1) disseminating the notice of availability of plans for review and comment to the public at large, environmental groups, federal, state and local agencies and other interested parties; and, (2) addressing concerns expressed by the public.

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II. RESPONSIBILITIES OF THE CO-PERMITTEES - CONT'D

4. Implement management programs, monitoring programs, and implementation plans within each respective jurisdiction as required by this order.
5. Submit storm drain system maps with periodic revisions as necessary.
6. Prepare and submit all reports to the principal permittee in a timely manner.
7. Enact legislation and ordinances as necessary to establish legal authority.
8. Pursue enforcement actions as necessary to ensure compliance with the stormwater management programs and the implementation plans.
9. Respond to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc. to prevent or reduce the discharge of pollutants to storm drain systems and waters of the United States.

III. GENERAL REQUIREMENTS

1. The dischargers shall prohibit illegal discharges from entering into the municipal storm drain systems. Discharges conditionally allowed to enter storm drain systems are specified in Item V.6.
2. The dischargers shall develop and implement best management practices (BMPs) to control discharge of pollutants to the maximum extent practicable⁴ to waters of the United States. The BMPs so developed, along with a time schedule for implementation, shall be submitted for the approval of and/or modification by the Executive Officer of the Regional Board. In developing the best management practices, the dischargers shall consider the water quality objectives of all the receiving water bodies.

⁴ Maximum Extent Practicable (MEP) means to the maximum extent possible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, fiscal feasibility, public health risks, societal concern, and social benefits.

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IV. COMPILATION AND SUBMITTAL OF EXISTING DATA

1. Runoff Quality/Quantity

The dischargers shall collectively submit all quantitative information, generated since 1980 or earlier where better information exists, on stormwater discharges to the storm drain systems. This information will be used to facilitate the identification of sources of pollutants present in the stormwater discharges and to develop an effective discharge monitoring program for this order. Information to be submitted shall include the following:

- a. Any historical averages and extremes data for stormwater discharges;
- b. Analytical and flow data for stormwater samples collected from the storm drain system outfalls, and within any waters of the United States;
- c. Precipitation data from the precipitation stations and the duration of the storm events (if available);
- d. Discharge data from the storm drain systems as determined from the gaging stations;
- e. Analysis of the data and the major pollutants identified in the stormwater discharges from each drainage area to each receiving water body and a determination whether the identified pollutants came from non-point source or point-source discharges.

2. System/Drainage Area Characterization

The dischargers shall submit information to the Regional Board for identification and characterization of the sources of pollutants in the stormwater discharges. The following information shall be provided:

- a. An identification of all land use activities in each drainage area and a map showing various land use activities and storm drain systems in each drainage area.
- b. An identification of the drainage areas, more than 50 acres in size, that discharge stormwater to the storm drain systems and of those drainage areas that discharge to storm drain systems with pipe diameters greater than 36 inches.

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IV. COMPILATION AND SUBMITTAL OF EXISTING DATA - CONT'D

- c. The sizes of these drainage areas (acreage) and the sizes (pipe diameters or approximate dimensions of the storm drain systems) and physical characteristics of the storm drain systems. These physical characteristics shall include, but not be limited to, whether the storm drain system is lined or unlined and whether it has intermittent or continuous flow;
 - d. The names, locations, and Standard Industrial Codes (SIC) of specific industrial sources and principal land use activities in each drainage area, identified in IV.2.a., above, discharging to the storm drain systems. An estimate of the runoff coefficients for these drainage areas shall also be provided;
 - e. The locations of present storm drain outfalls discharging to waters of the United States. The name of each receiving water body shall be reported and the location of each outfall shall be indicated on a map;
 - f. The locations of major structural controls for stormwater discharge (e.g. retention basins, detention basins, etc).
3. Illegal Discharges/Illicit Connections
- a. The dischargers shall provide a list of dischargers (permitted and unpermitted) known to exist currently who discharge process or non-process wastewater to the storm drain systems. The dischargers shall also provide any existing procedures used for detecting illegal discharges/illicit connections to the storm drain systems, the rationale for the procedures, and the drainage areas (or cities) in which these programs are practiced; and
 - b. A description of the present and historic use of ordinances or other controls to prohibit the illegal discharges/illicit connections to storm drain systems;

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IV. COMPILATION AND SUBMITTAL OF EXISTING DATA - CONT'D

4. Stormwater Management Program

A description of the existing stormwater/urban runoff management programs and structural and non-structural BMPs implemented by the dischargers.

5. Stormwater/Urban Runoff Monitoring Program

A description of the existing monitoring programs and the rationale for their selection.

6. Pollutant Information

The dischargers shall provide information regarding the discharge of any pollutant required under 40 CFR 122.21(g)(7)(iii) and (iv).

7. Other Pertinent Existing Information

The dischargers shall provide to the Regional Board any other existing information that is pertinent to this permit. For example, a description of drainage area hydrologic parameters.

V. RECONNAISSANCE SURVEY

1. The dischargers shall submit information from a reconnaissance survey to be conducted at the storm drain systems. The purpose of the survey is to identify illegal discharges/illicit connections to the storm drain systems. The reconnaissance survey field manual and implementation plan for prosecuting violators and eliminating illegal discharges so developed, along with time schedules for implementation, shall be submitted for the approval of and/or modification by the Executive Officer of the Regional Board.
2. By January 31, 1991, a proposed reconnaissance survey field manual, including a time schedule, shall be submitted for approval and/or modification by the Executive Officer of the Regional Board.

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V. RECONNAISSANCE SURVEY - CONT'D

3. The discharger shall implement the reconnaissance survey field manual after consideration of public comments and approval/modification of the manual by the Executive Officer of the Regional Board. By January 31, 1992 and every year thereafter, until the completion of the survey, a progress report containing the following information shall be submitted:
 - a. Results of the reconnaissance survey, including an analysis of the results.
 - b. Additional information that would lead to isolating and identifying sources of illegal discharges/illicit connections to the storm drain systems. Such information should include, but is not limited to, visual observations (e.g. color, turbidity, odor, etc), major land use activities in the surrounding drainage areas, seasonal change of flow, the surrounding hydrogeologic formation, etc.
 - c. A listing of any identified or suspected illegal dischargers including the names, locations, and types of the facilities and the names of the storm drain systems and receiving waters the illegal discharges are discharged to.
 - d. A listing of large industrial facilities (with more than 100 employees) where hazardous/toxic substances are stored and/or used, landfills, hazardous waste disposal, treatment, and/or recovery facilities, and any known spills, leaks or other problems in the area.
 - e. A discussion on all activities, related to the survey, conducted for the past 12 months.
4. By January 31, 1992, the dischargers shall submit a proposed implementation plan, including a tentative time schedule, to prosecute violators and eliminate such discharges to the storm drain systems. The proposed plan shall also include a description of the legal authorities for prosecuting violators and eliminate or control illicit disposal practices/illegal discharges to the storm drain systems, and a proposed time schedule for obtaining such legal authorities, if necessary.

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V. RECONNAISSANCE SURVEY - CONT'D

5. The dischargers shall implement the program for prosecuting violators and eliminate illegal discharges to the storm drain systems after consideration of public comments and approval/modification of the program by the Executive Officer of the Regional Board. By January 31, 1993 and every year thereafter, the discharger shall submit a progress report evaluating the effectiveness of the plan in detecting and eliminating illegal discharges/illicit connections to the storm drain systems.

6. The permittees shall effectively eliminate all identified illegal discharges/illicit connections in the shortest time practicable, and in no case later than July 1, 1995. Those illegal discharges/illicit connections identified after July 1, 1995 shall be eliminated in the shortest time practicable. The following discharges shall not be considered illegal discharges provided the discharges do not cause or contribute to violations of water quality standards and are not significant contributors of pollutants to waters of the United States: discharges composed entirely of stormwater, discharges covered under NPDES permits or waivers/clearances, discharges to storm drain systems from potable water line flushing, fire fighting, landscape irrigation, diverted stream flows, rising groundwaters (not including active dewatering systems), groundwater infiltration as defined at 40 CFR 35.2005(20), discharges from potable water sources, passive foundation drains (not including active groundwater dewatering), air conditioning condensation, irrigation water, water from crawl space pumps, passive footing drains (not including active groundwater dewatering systems), lawn watering, individual residential vehicle washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, street wash waters related to cleaning and maintenance by permittees, or waters not otherwise containing wastes as defined in California Water Code Section 13050 (d). If it is determined that any of the preceding discharges cause or contribute to violations of water quality standards or are significant contributors of pollutants to waters of the United States, the permittees shall prohibit these discharges from entering storm drain systems.

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VI. DRAINAGE AREA MANAGEMENT PROGRAM

1. The dischargers shall develop and implement best management practices (BMPs) to control the discharge of pollutants to waters of the United States. The discharger shall submit information pertaining to the proposed stormwater system management programs for approval of and/or modification by the Executive Officer of the Regional Board. The information shall include, but need not be limited to, the following:
 - a. A brief description of the existing BMPs and other stormwater system management programs.
 - b. Proposed modifications to the existing BMPs and other stormwater system management program to reduce pollutants in the stormwater discharges from industrial, commercial, and residential areas to the maximum extent practicable. At a minimum, the following shall be considered in developing the BMPs:

Structural Controls

- i. For the permitted area, wherever appropriate, structural controls such as first flush diversion, detention/retention basins, infiltration trenches/basins, porous pavement, oil/grease separators, grass swales, wire concentrators, etc.

Non-Structural Controls

- ii. Education programs to educate the public on proper disposal of hazardous/toxic wastes. These may include public workshops, meetings, notifications by mail, collection programs for household hazardous wastes, etc.
- iii. Management practices such as street sweeping, proper maintenance of streambanks, erosion control structures, etc.
- iv. Regulatory approaches such as county and local ordinances, permitting of construction sites, etc.

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VI. DRAINAGE AREA MANAGEMENT PROGRAM - CONT'D

- v. Enforcement programs, established by the county and cities, including response to emergency incidents, field inspections, and identification and elimination of illegal discharges/illicit connections to the storm drain systems.
- c. An implementation plan for site-specific BMPs which are required to reduce pollutants in the stormwater discharges from residential, commercial and industrial areas, and construction sites. Requirements for the implementation of BMPs at these sites are described below:

- i. New Construction Sites

Runoff from construction sites has the potential to adversely impact the quality of waters of the United States. A full range of structural and non-structural BMPs shall be required at new construction sites. All industrial/commercial construction operations that result in a disturbance of one acre or more of total land area (or a smaller parcel of land which is a part of a larger common development) and residential construction sites that result in a disturbance of five acres or more of total land area (or a smaller parcel of land which is a part of a larger common development) shall be required to develop and implement BMPs, including a long term funding mechanism and commitment to support required maintenance of the BMPs, to control erosion/siltation and contaminated runoff from the construction sites.

- ii. Residential and Commercial/Industrial Sites

Numerous studies have shown that runoff from residential and commercial/industrial areas has contributed a number of pollutants into waters of the United States. As development progresses, the percentage of paved surface increases, the rate of runoff increases, and the amount of pollutants in the runoff also increases. To prevent the increase of pollutants in the stormwater discharges, all new developments and existing facilities with

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VI. DRAINAGE AREA MANAGEMENT PROGRAM - CONT'D

ii. Residential and Commercial/Industrial Sites -
(cont'd)

significant redevelopment, irrespective of their size, must develop individual comprehensive, long-term, post construction stormwater management plans, incorporating the structural and non-structural BMPs. These management plans shall include a long term funding mechanism and commitment to support required maintenance of the BMPs.

d. A description of the legal authorities for implementing the programs, and a proposed time schedule for obtaining such legal authorities, if necessary.

e. A description of staff, equipment, and funds available to implement the programs.

2. By July 31, 1991, the BMPs and other stormwater system management program so developed, along with a time schedule for implementation, shall be submitted for the approval of and/or modification by the Executive Officer of the Regional Board.

3. The dischargers shall implement the BMPs and other stormwater management programs after consideration of public comments and approval/modification of the programs by the Executive Officer of the Regional Board. By July 31, 1992 and every year thereafter, the dischargers shall submit a progress report assessing the reduction of pollutants discharged to waters of the United States and to evaluate the effectiveness of the BMPs developed for the stormwater discharges. The dischargers shall also include recommended BMP modifications, with a time schedule for implementation, needed to achieve compliance with any water quality objectives not attained.

VII. STORMWATER SYSTEM MONITORING PROGRAM

1. The discharger shall submit a stormwater system monitoring program for approval of and/or modification by the Executive Officer. The objectives of the stormwater system monitoring program are:

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VII. STORMWATER SYSTEM MONITORING PROGRAM - CONT'D

- a. To define the type, magnitude (concentration and mass load), and sources of pollutants in the stormwater system discharges within each permittee's respective jurisdiction so that appropriate pollution prevention and correction measures can be identified;
 - b. To evaluate the effectiveness of pollution prevention and correction measures; and
 - c. To evaluate the compliance with water quality objectives established for the stormwater system or its components.
2. At a minimum, the stormwater system monitoring program shall include the following:
- a. A brief description of the existing monitoring programs.
 - b. For both storm and non-storm conditions, sampling of the stormwater system discharges at major and representative outfalls discharging to waters of the United States to determine the pollutant loading rates to each receiving water body listed in Attachment "E".
 - c. For both storm and non-storm conditions, a description of the number of monitoring stations, the locations of these monitoring stations, and the rationale for their selection.
 - d. For both storm and non-storm conditions, a description of the physical, chemical, and biological parameters selected for analysis, the method of analysis, the type of sampling, and the sampling frequency proposed. The rationale for each of these selections shall be provided.
 - e. Monitoring of the stormwater system discharges to identify illicit connections shall be conducted.
 - f. Quality assurance and quality control plans for the stormwater system monitoring program shall be submitted.
 - g. A data base that consolidates all monitoring information shall be maintained.

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VII. STORMWATER SYSTEM MONITORING PROGRAM - CONT'D

- h. A description of the staff, equipment, and funds available to implement the monitoring program shall be provided.
 - i. A description of the legal authorities for implementing the program, and a proposed time schedule for obtaining such legal authorities (if necessary) shall be provided.
 3. By November 30, 1990, the stormwater system monitoring program so developed, along with a time schedule for implementation, shall be submitted for the approval of and modification by the Executive Officer of the Regional Board.
 4. The dischargers shall implement the stormwater system monitoring program after consideration of public comments and approval/modification of the program by the Executive Officer of the Regional Board. By November 30, 1991 and every year thereafter, the dischargers shall submit a report on progress towards implementation of the approved stormwater monitoring program.

VIII. RECEIVING WATER MONITORING PROGRAM

1. The discharger shall develop a receiving water monitoring program to assess the effects of pollutants from the stormwater system discharges on receiving water bodies, and to evaluate compliance with water quality objectives of the receiving water bodies. All the water bodies listed in Attachment "E" shall be addressed. The receiving water monitoring program shall be coordinated with the stormwater system monitoring program required under Section VII such that the aforestated objectives of the receiving water monitoring program will be achieved.
2. At a minimum, the receiving water monitoring program shall include the following:
 - a. A brief description of the existing monitoring programs.
 - b. A description of the number of monitoring stations, the location of these monitoring stations, and the rationale for their selection.

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VIII. RECEIVING WATER MONITORING PROGRAM - CONT'D

- c. A description of the physical, chemical and biological selected for analysis, the type of sampling, and the sampling frequency proposed. The rationale for each of these selections shall be provided.
 - d. Quality assurance and quality control plans for the receiving water monitoring program.
 - e. Maintenance of a data base that consolidates all monitoring information. This data base shall be coordinated with the data base required for the stormwater system monitoring program (VII.2.g.).
3. By November 30, 1990, the discharger shall submit a proposed receiving water monitoring program, including a time schedule for implementation, for the approval of and modification by the Executive Officer of the Regional Board.
 4. The dischargers shall implement the receiving water monitoring program after consideration of public comments and approval/modification of the program by the Executive Officer of the Regional Board. By November 30, 1991 and every year thereafter, the discharger shall submit a report on progress towards implementation of the approved receiving water monitoring program.

IX. FISCAL ANALYSIS

1. By July 31, 1991 and every year thereafter, a fiscal analysis of the capital and operation and maintenance expenditures necessary to accomplish the activities of the proposed plans and programs shall be performed.
2. By August 31, 1991 and every year thereafter, a fiscal analysis of the capital and operation and maintenance expenditures shall be submitted for review by EPA and the Regional Board.

X. DATA ANALYSIS

1. For the stormwater system monitoring program, the results of the chemical analysis and quantitative data (such as flow, precipitation, and discharge data) shall be compiled for each drainage area, each storm event, and for different times during the same storm event. The mass loading rates for the pollutants of concern shall be calculated.

Order No. 90-71 (NPDES No. CA 8000180) - cont'd Page 23 of 26
The County of Orange and the Cities
Areawide Urban Stormwater Runoff

X. DATA ANALYSIS - CONT'D

2. An evaluation shall be performed for the calculated mass loading rates from the stormwater system monitoring program and the receiving water monitoring program. Any impact of the discharges from the stormwater systems on the receiving waters shall be discussed, starting with the most significantly impacted receiving water bodies. The evaluation shall be concluded with recommendations and the corrective actions proposed for any resulting discrepancies.
3. By January 31, 1992 and every year thereafter, the analysis of all the above data shall be submitted.

XI. PROGRAM ANALYSIS

1. In January of every year, the principal permittee shall conduct an analysis of the effectiveness of the overall stormwater management program. If the water quality objectives of the receiving waters are violated as a result of stormwater/urban runoff discharges, the principal permittee shall identify proposed programs which will result in the attainment of the water quality objectives, and a time schedule to implement the new programs.
2. By March 31, 1992 and every year thereafter, the analysis of the overall program and any proposed programs, to achieve compliance with water quality objectives of water bodies that have not been attained, shall be submitted.

XII. REPORTING

1. All reports shall be signed by a responsible officer or duly authorized representative of the discharger and shall be submitted to EPA and the Regional Board under penalty of perjury.
2. A signed copy of the Implementation Agreement between the County of Orange, the OCFCD, and the cities shall be submitted by January 31, 1991. Any revisions to the Implementation Agreement shall be forwarded to the Executive Officer within 30 days of approval by all the dischargers.
3. Other reports and information required to be submitted to the Regional Board under the requirements specified above shall be reported in accordance with the following schedule:

Order No. 90-71 (NPDES No. CA 8000180) - cont'd
 The County of Orange and the Cities
 Areawide Urban Stormwater Runoff

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XII. REPORTING - CONT'D.

<u>TASK</u>	<u>COMPLIANCE REPORT DUE</u>
a. Existing reports and programs IV.1.-IV.7.	01/31/91
b. Proposed Reconnaissance Survey Field Manual - V.2	01/31/91
c. Proposed Implementation Plan for Prosecuting Illegal Discharges - V.4.	01/31/92
d. Management Programs (BMPs) and Implementation Plan - VI.1 & VI.2.	07/31/91
e. Stormwater System Monitoring Program VII.1. - VII.3.	11/30/90
f. Receiving Water Monitoring Program VIII.1. - VIII.3.	11/30/90
g. Progress Reports after Plan Implementation	
i. Reconnaissance Survey - V.3.	01/31 of every year ⁵
ii. Illegal Discharges - V.5.	01/31 of every year ⁶
iii. Management Programs - VI.3.	07/31 of every year ⁷
iv. Stormwater System Monitoring Program VII.4.	11/30 of every year ⁸
v. Receiving Water Monitoring Program VIII.4.	11/30 of every year ⁹
h. Compliance - Illegal Discharges	See Item V.6.

⁵ The first progress report is due on January 31, 1992.

⁶ The first progress report is due on January 31, 1993.

⁷ The first progress report is due on July 31, 1992.

⁸ The first progress report is due on November 30, 1991.

⁹ The first progress report is due on November 30, 1991.

Order No. 90-71 (NPDES No. CA 8000180) - cont'd Page 25 of 26
The County of Orange and the Cities
Areawide Urban Stormwater Runoff

XII. REPORTING - CONT'D

<u>TASK</u>	<u>COMPLIANCE REPORT DUE</u>
i. Fiscal Analysis - IX.	08/31 of every year ¹⁰
j. Data Analysis - X.	01/31 of every year ¹¹
k. Program Analysis - XI.	03/31 of every year ¹²

XIII. EXPIRATION AND RENEWAL

1. This Order expires on July 1, 1995 and the discharger must file a Report of Waste Discharge in accordance with outlaw 23, Chapter 3, Subchapter 9 of the California Code of Regulations not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements. This report of waste discharge shall include, but is not limited to, the following:
 - a. Summary of the results of the monitoring program.
 - b. Summary of BMPs implemented and evaluations of their effectiveness.
 - c. Summary of procedures implemented to detect, identify, and eliminate illegal discharges and illicit disposal practices and an evaluation of their effectiveness.
 - d. Summary of enforcement procedures and actions taken to require stormwater dischargers to comply with the approved stormwater management programs.
 - e. Summary of measures implemented to control pollutants in surface runoff from construction sites and an evaluation of their effectiveness.
 - f. Evaluation of the need for additional BMPs, source control, and/or structural control measures.
 - g. Proposed plan of stormwater/urban runoff quality management activities that will be undertaken during the term of the next permit.

¹⁰ The first annual fiscal analysis is due on August 31, 1991.

¹¹ The first data analysis is due on January 31, 1992.

¹² The first program analysis is due on March 31, 19


Order No. 90-71 (NPDES No. CA 8000180) - cont'd
The County of Orange and the Cities
Areawide Urban Stormwater Runoff

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XIII. EXPIRATION AND RENEWAL - CONT'D

- h. Any significant changes to the storm drain systems, outfall locations, detention/retention basins, and structural/non-structural controls.
2. This order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective 10 days after date of its adoption, provided that the Regional Administrator of the Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on July 13, 1990.



Gerard J. Thibeault
Executive Officer

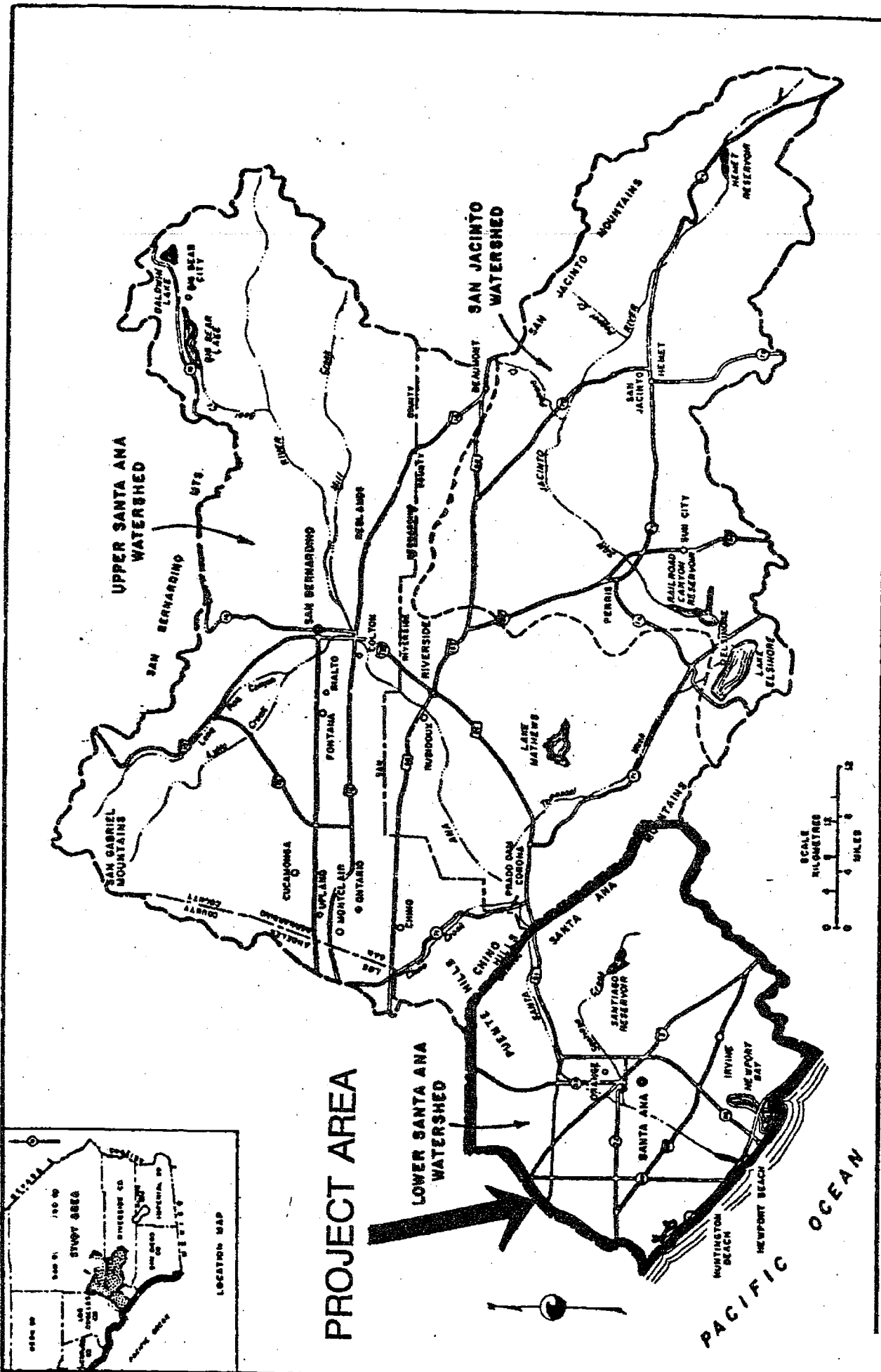
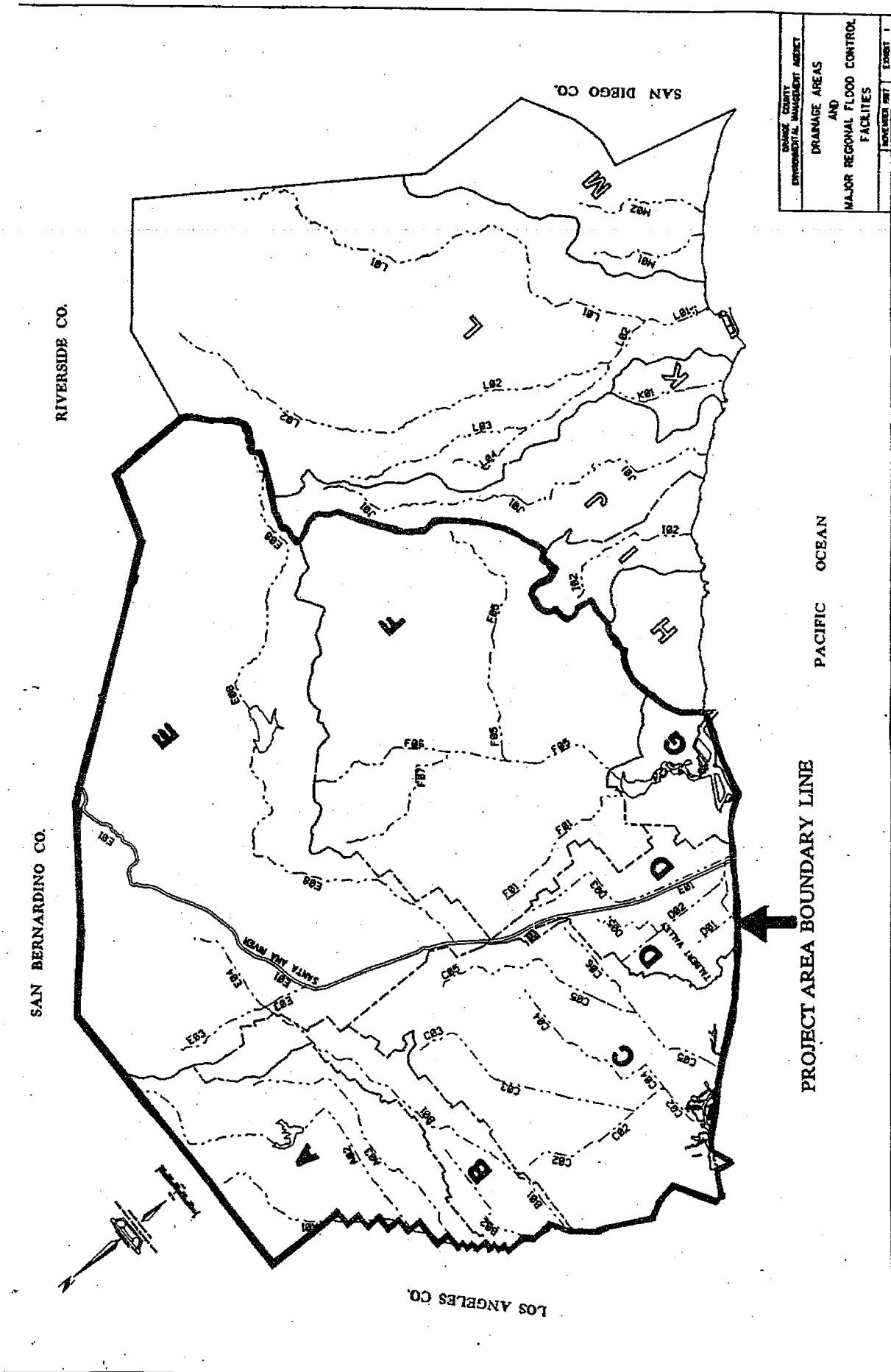


FIGURE 1 - SANTA ANA PLANNING AREA

ST. WATER RESOURCES, SOUTHERN DISTRICT, 1992

Order No. 90-71
NPDES No. CA 8000180
Attachment "A"



SAN DIEGO COUNTY ENVIRONMENTAL MANAGEMENT AGENCY DRAINAGE AREAS AND MAJOR REGIONAL FLOOD CONTROL FACILITIES DRAWING NO. 1 SHEET 1
--

LEGEND

- A,B - San Gabriel River Drainage Area
- C - Huntington Harbour & Bolsa Bay Drainage Area
- D - Greenville-Banning Channel Drainage Area
- E - Santa Ana River Drainage Area
- F,G - Newport Bay Drainage Area

Order No. 90-71
 NPDES No. CA 8000180
 Attachment "B"

ATTACHMENT "C"

Incorporated Cities of Orange County and 1990 Population Estimate,
Santa Ana Region

Anaheim	249556
Brea	33698
Buena Park	66090
Costa Mesa	96094
Cypress	44323
Fountain Valley	55780
Fullerton	109972
Garden Grove	137632
Huntington Beach	187782
Irvine	105311
La Habra	48964
La Palma	16291
Los Alamitos	12561
Newport Beach	70091
Orange	108144
Placentia	43775
Santa Ana	233782
Seal Beach	27110
Stanton	28796
Tustin	53030
Villa Park	7022
Westminster	72413
Yorba Linda	49479

ATTACHMENT "D"

POTENTIAL POLLUTANT DISCHARGE ENTITIES IN ORANGE COUNTY

Caltrans

Universities and Colleges

University of California, Irvine

University of California, Riverside

California State University, Fullerton

Coastline College

Cypress College

Fullerton College

Irvine Valley College

Golden West College

Orange Coast College

Rancho Santiago College

Metropolitan Water District

Department of Defense

Naval Weapons Station, Seal Beach Naval Reserve Center, Los Alamitos

School Districts

Lowell

La Habra

Brea-Olinda

Buena Park

Fullerton

Yorba Linda

Placentia

Cypress

Centralia

Savanna

Magnolia

Anaheim

Orange

Los Alamitos

Garden Grove

Santa Ana

Tustin

Westminster

Ocean View

Fountain Valley

Huntington Beach

Newport-Mesa

Irvine

Saddleback

Laguna Beach

Hospitals

Fairview Hospital, Costa Mesa

U.C. Irvine Medical Center

Orange County Sanitary District

Orange County Water District

Southern Pacific Railroad

ATSF Railroad

ATTACHMENT "D" (CONT'D)

Army Corps of Engineers
Carbon Canyon Dam
Brea Dam
Fullerton Dam
Prado Dam
National Forest Service
State Parks
Chino Hills State Park
Crystal Cove State Park
San Clemente State Park

TABLE 2-1
 BENEFICIAL USES

Water Body

Beneficial Use

OCEAN WATERS

NEARSHORE ZONE*

San Gabriel River to Poppy Street in Corona del Mar

Poppy Street to Southeast Regional Boundary

OFFSHORE ZONE

Waters Between Nearshore Zone and Limit of State Waters

BAYS, ESTUARIES, AND TIDAL PRISMS

Anaheim Bay - Outer Bay

Anaheim Bay - National Wildlife Refuge Portion

Sunset Bay - Huntington Harbour

Bolsa Bay

Lower Newport Bay

Upper Newport Bay

Tidal Prism of Santa Ana River (to within 1000' of Victoria Street) and Newport Slough

Tidal Prism of San Gabriel River - River Mouth to Marina Drive

Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters

	M U N	A G R	I N D	P R O C	G W R	N A V	P O W	R E C 1	R E C 2	C O M H	W A R M	C O L D	B I O L	W I L D	R A R E	S P R N	M A R	S H E L
San Gabriel River to Poppy Street in Corona del Mar	+		X			X		X	X	X							X	X
Poppy Street to Southeast Regional Boundary	+					X		X	X	X			X				X	X
Waters Between Nearshore Zone and Limit of State Waters	+					X		X	X	X							X	
Anaheim Bay - Outer Bay	+					X		X	X				X	X	X		X	
Anaheim Bay - National Wildlife Refuge Portion	+							X ¹	X				X	X	X		X	
Sunset Bay - Huntington Harbour	+					X		X	X	X				X			X	
Bolsa Bay	+							X	X	X			X	X	X		X	X
Lower Newport Bay	+					X		X	X	X							X	X
Upper Newport Bay	+							X	X	X			X	X	X		X	X
Tidal Prism of Santa Ana River (to within 1000' of Victoria Street) and Newport Slough	+							X	X	X				X	X		X	
Tidal Prism of San Gabriel River - River Mouth to Marina Drive	+							X	X	X				X			X	X
Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters	+							X	X	X				X			X	

*Defined by Ocean Plan Chapter II A.1.: "Within a zone bounded by shoreline and a distance of 1000 feet from shoreline or the 30-foot depth contour, whichever is further from shoreline..."

X= Present or Potential Beneficial Use
 I= Intermittent Beneficial Use

+ Excepted from MCM by Reg. Bd. Res. 89-42

1 No access per agency with jurisdiction (U.S. Navy)

TABLE 2-1
 BENEFICIAL USES

Water Body

Beneficial Use

INLAND SURFACE STREAMS

LOWER SANTA ANA RIVER BASIN

Santa Ana River

Reach 1- Tidal Prism to 17th St in Santa Ana

Reach 2- 17th Street in Santa Ana to Prado Dam

Santiago Drainage

Silverado Creek

Santiago Creek:

Reach 1- below Irvine Lake

Reach 2- Irvine Lake (see Lakes, p. 2-13)

Reach 3- Irvine Lake to Modjeska Canyon

Reach 4- in Modjeska Canyon

San Diego Creek Drainage

San Diego Creek:

Reach 1- below Jeffrey Road

Reach 2- above Jeffrey Road to Headwaters

San Joaquin Freshwater Marsh

All Other Tributaries to these Creeks: Bonita
 Creek, Serrano Cr., Peters Canyon Wash, Hicks
 Canyon Wash, See Canyon Wash, Borrego Canyon Wash,
 Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake
 Canyon Wash, Sand Canyon Wash

	M	A	I	P	G	N	P	R	R	C	W	C	B	W	R	S	S
	U	G	N	R	O	A	O	E	E	O	A	O	I	I	A	P	S
	N	R	D	C	R	V	W	1	2	M	M	L	L	L	R	W	E
								X ²	I								
Reach 1- Tidal Prism to 17th St in Santa Ana	+							X	I								
Reach 2- 17th Street in Santa Ana to Prado Dam	+	X			X			X	X		X			X			
<u>Santiago Drainage</u>																	
Silverado Creek	X				X			X	X			X		X			
Santiago Creek:																	
Reach 1- below Irvine Lake	X				X			X ²	X			X		X			
Reach 2- Irvine Lake (see Lakes, p. 2-13)																	
Reach 3- Irvine Lake to Modjeska Canyon	I				I			I	I		I			I			
Reach 4- in Modjeska Canyon	X				X			X	X			X		X			
<u>San Diego Creek Drainage</u>																	
San Diego Creek:																	
Reach 1- below Jeffrey Road	+							X ²	X		X			X			
Reach 2- above Jeffrey Road to Headwaters	+				I			I	I		I			I			
San Joaquin Freshwater Marsh	+							X	X		X			X	X		
All Other Tributaries to these Creeks: Bonita Creek, Serrano Cr., Peters Canyon Wash, Hicks Canyon Wash, See Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash	+				I			I	I		I			I			

+ Exempted from MUN by Reg. Bd. Res. 89-42
 2 Access prohibited in all or part by Orange County
 Environmental Management Agency (OCEMA)

X= Present or Potential Beneficial Use
 I= Intermittent Beneficial Use

TABLE 2-1
BENEFICIAL USES

Water Body

Beneficial Use

LAKES AND RESERVOIRS

UPPER SANTA ANA RIVER BASIN

Baldwin Lake

Big Bear Lake

Evans Lake

Jenks Lake

Lee Lake

Mathews, Lake

Mockingbird Reservoir

Norconian, Lake

LOWER SANTA ANA RIVER BASIN

Anaheim Lake

Irvine lake (Santiago Reservoir)

Laguna, Lambert, Peters Canyon,
Rattlesnake, Sand Canyon and Siphon Reservoirs

SAN JACINTO RIVER BASIN

Canyon Lake (Railroad Canyon Reservoir)

Elsinore, Lake

Fulmor, Lake

Hemet, Lake

Perris, Lake

MUN	AGR	IND	POW	GEN	NAV	POW	REC1	REC2	COM	WAR	COL	BIO	WIL	RARE	SPW	MAR	SHE
							I	I		I	I		I				
X	X			X			X	X		X	X		X				
+							X	X		X	X		X				
X	X			X			X	X			X		X				
+	X	X		X			X	X		X			X			X	
X	X	X	X	X			X ⁴	X		X			X		X		
+	X						X ⁵	X		X			X				
+							X	X		X			X				
+				X			X	X		X			X				
X	X						X	X		X	X		X				
+	X						X ⁶	X		X			X				
X	X			X			X	X		X			X				
+							X	X		X			X				
X	X			X			X	X		X	X		X			X	
X	X	X	X	X			X	X		X	X		X				

- + Excepted from MUN by Reg. Bd. Res. 89-42
- 4 Access prohibited by the Metropolitan Water District
- 5 Access prohibited by the Gage Canal Company (owner-operator)
- 6 Access prohibited by Irvine Ranch Company (owner)

X= Present or Potential Beneficial Use
I= Intermittent Beneficial Use

Order No. 90-71
NPDES No. CA 8000180
Attachment "E"

California Regional Water Quality Control Board
Santa Ana Region

July 13, 1990

ITEM: 10

SUBJECT: Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County Within the Santa Ana Region, Stormwater Runoff Management Program, Orange County, Order No. 90-71 (NPDES No. CA 8000180)

DISCUSSION:

See attached Fact Sheet.

RECOMMENDATION:

Adopt Order No. 90-71, NPDES No. CA 8000180, as presented.

In addition to the dischargers, comments were solicited from the following agencies and/or persons:

U. S. Environmental Protection Agency - Robert Wills, Pretreatment, Sludge, and Stormwater Section
U.S. Army District, Los Angeles, Corps of Engineers - Permits Section
NOAA, National Marine Fisheries Service
U.S. Fish and Wildlife Service
State Water Resources Control Board - Ted Cobb, Office of the Chief Counsel
State Water Resources Control Board - Archie Matthews, Division of Water Quality
State Department of Water Resources - Los Angeles
California Regional Water Quality Control Board, San Francisco Bay Region (2) - Tom Mumley
California Regional Water Quality Control Board, Los Angeles Region (4) - Catherine Tyrell
California Regional Water Quality Control Board, Central Valley Region (5) - Wayne Pierson
California Regional Water Quality Control Board, San Diego Region (9) - Bruce Posthumus
State Department of Fish and Game - Marine Resources Region
State Department of Health Services - Santa Ana
State Department of Health Services - San Diego
State Department of Health Services - San Bernardino
State Department of Parks and Recreation - Henry R. Agonia
Orange County Health Care Agency - Robert Merryman

San Bernardino County Department of Health Services - Paul Ryan
San Bernardino County Flood Control District - Chuck Laird
Riverside County Health Department - John Fleming
Riverside County Flood Control & Water Conservation District -
Frank Peairs

South Coast Air Quality Management District, El Monte
Caltrans, District 8 - Santa Ana

Southern Pacific Railroad

Atchison, Topeka & Santa Fe Railway Company

Seal Beach Naval Weapons Station

Seal Beach Naval Reserve Center, Los Alamitos

U. S. Marine Corps Air Station, El Toro

U. S. Army Corps of Engineers

National Forest Service

Brown & Caldwell - Jack Baylis

Uribe And Associates - Geoff Brosseau

Bill Dendy & Associates - Bill Dendy

Irvine Company - Sat Tamaribuchi

Building Industry Association - Governmental Affairs Council

Universities and Colleges

University of California, Irvine

University of California, Riverside

California State University, Fullerton

Chapman College

Coastline College

Cypress College

Fullerton College

Irvine Valley College

Golden West College

Orange Coast College

Rancho Santiago College

California State Polytechnic University, Pomona, Department of
Geography & Social Sciences - Dr. Crane Miller

School Districts

Anaheim Elementary School District

Anaheim Union High School District

Brea-Olinda Unified School District

Buena Park Joint Union High School District

Centralia Elementary School District

Cypress Elementary School District

Fountain Valley Union High School District

Fullerton Elementary School District

Fullerton Joint Union High School District

Garden Grove Unified School District

Huntington Beach Elementary School District

Huntington Beach Union High School District

Irvine Unified Union High School District

La Habra Joint Union High School District

Los Alamitos Unified School District

Lowell Joint Union High School District

Magnolia Elementary School District

School Districts - cont'd

Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District
Placentia Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

Hospitals

Fairview Hospital, Costa Mesa
U.C. Irvine Medical Center

Environmental Organizations

Sierra Club, Orange County Chapter
Sierra Club, Los Angeles Chapter - Dick Hingson
Natural Resources Defense Council (NRDC)
Cousteau Society
Amigos De Bolsa Chica
Audobon Sea & Sage Chapter
Huntington Beach Wetlands Conservancy
Surfrider Foundation

Newspapers

Orange County Register
Los Angeles Times
Press Enterprise

Major Water/Wastewater Agencies

Santa Ana Watershed Project Authority - Neil Cline
Irvine Ranch Water District - John Morris
Los Alisos Water District - Kenneth Peterson
El Toro Water District - Robert Hill
L.A. County Department of Public Works - John Mitchell
County Sanitation Districts of Orange County - Wayne Sylvester
Orange County Water District - Bill Mills
Metropolitan Water District - Kevin Wattier

Other Cities in the Region with population >100,000

City of Ontario - City Manager/Director of Public Works
City of San Bernardino - City Manager/Director of Public Works
City of Fontana - City Manager/Director of Public Works
City of Rancho Cucamonga - City Manager/Director of Public Works
City of Riverside - City Manager/Director of Public Works
City of Moreno Valley - City Manager/Director of Public Works

California Regional Water Quality Control Board
Santa Ana Region
6809 Indiana Avenue, Suite 200
Riverside, CA 92506-4298

FACT SHEET

PROJECT

The attached pages contain information concerning an application for waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit. Order No. 90-71, NPDES No. CA 8000180, prescribes waste discharge requirements for urban stormwater runoff from the cities and the unincorporated areas in Orange County within the jurisdiction of the Santa Ana Regional Board. On March 15, 1990, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, La Palma, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as the dischargers), submitted NPDES Application No. CA 8000180 for an areawide stormwater discharge permit under the National Pollutant Discharge Elimination System (NPDES). As part of the permit application, a topographic map, a storm drain system map, listings of cities and entities participating in this program, and copies of ordinances relevant to the urban stormwater runoff of various cities were submitted.

PROJECT AREA

The permitted area is delineated by the Los Angeles County-Orange County boundary line on the northwest, the San Bernardino-Orange County boundary line on the north and northeast, the Riverside County-Orange County boundary line on the east, the Santa Ana Regional Board-San Diego Regional Board boundary line on the southeast, and the Pacific Ocean on the southwest (see Attachment "B").

CLEAN WATER ACT REQUIREMENTS

The Federal Clean Water Act (CWA) allows the U. S. Environmental Protection Agency (EPA) to delegate its NPDES permitting authority to states with an approved environmental regulatory program. The State of California is one of the delegated states. The Porter-Cologne Act (California Water Code) authorizes the State Board, through its Regional Boards, to regulate and control the discharge of pollutants into waters of the state and tributaries thereto.

Fact Sheet - continued
Order No. 90-71 (NPDES No. CA 8000180)

Page 2 of 7

CLEAN WATER ACT REQUIREMENTS - CONT'D

Section 405 of the Water Quality Act (WQA) of 1987 added Section 402(p) to the CWA. Pursuant to Section 402(p)(4) of the CWA, the EPA is required to promulgate regulations for stormwater permit applications for stormwater discharges associated with industrial activities and municipal separate storm drain systems serving a population of 100,000 or more. Section 402 (p)(4) of the CWA also requires dischargers of stormwater associated with industrial activities and municipal separate storm drain systems serving a population of 250,000 or more to file stormwater permit applications by February 4, 1990.

On December 7, 1988, EPA published its proposed regulations in the Federal Register to solicit public comments. Final regulations are tentatively scheduled to be promulgated on July 20, 1990 and to be published in the Federal Register on August 4, 1990. In the absence of final stormwater regulations, a permit governing municipal stormwater discharges should meet both the statutory requirements of Section 402 (p)(3)(B) and all requirements applicable to a NPDES permit issued under the issuing authority's discretionary authority in accordance with Section 402 (a)(1)(B) of the CWA.

AREAWIDE STORMWATER PERMIT

To regulate and control stormwater discharges from the Orange County area to the Orange County storm drain systems, an areawide approach is essential. The entire storm drain system is not controlled by a single entity; the County of Orange, the OCFCD, and several cities manage the system. In addition to the cities and the county, there are a number of other significant contributors of urban stormwater runoff to these storm drain systems. These include: large institutions such as the State University system, schools, hospitals etc.; state agencies such as Caltrans; public utilities such as Orange County Water District, Metropolitan Water District etc.; national defense installations such as Seal Beach Naval Weapons Station, El Toro Marine Base, etc.; National Forest Service; state parks; and entertainment centers such as Disneyland. Some of these storm drain systems discharge into storm drain systems controlled by other entities, such as the Los Angeles County Flood Control District, which is under the Los Angeles Regional Board's jurisdiction. The Los Angeles area storm drain systems are regulated under a separate permit, NPDES No. CA 0061654, issued by the Los Angeles Regional Board. Stormwater runoff draining into the storm drain systems in Orange County under the San Diego Regional Board's jurisdiction is regulated by Order No. 90-38, NPDES No. CA 0108740, issued by the San Diego Regional Board. Some of the storm drain systems controlled by the Counties and Cities of San Bernardino and Riverside discharge into storm drain systems of the County and Cities of Orange.

RBSA_28516

Fact Sheet - continued
Order No. 90-71 (NPDES No. CA 8000180)

Page 3 of 7

AREAWIDE STORMWATER PERMIT - CONT'D

The management and control of the entire flood control system cannot be effectively carried out without the cooperation and efforts of all these entities. Also, it would not be meaningful to issue a separate stormwater permit to each of the entities within the permitted area whose land/facilities drain into the county storm drain systems. The Regional Board and a majority of the cities and the county have concluded that the best management option for the Orange County area is to issue an areawide stormwater permit.

COORDINATION WITH OTHER REGIONAL AGENCIES

In developing best management practices and monitoring programs, consultation/coordination with other flood control districts and other regional boards are essential. Regional Board staff will coordinate the program with other regional boards and other flood control districts/cities on an "as needed" basis.

EXISTING FACILITIES AND PROGRAMS

Within the Santa Ana Region, Orange County Flood Control District, operated by the County of Orange, serves a population of approximately 2.0 million, occupying an area of approximately 511 square miles (approximately 128 square miles of unincorporated areas and 383 square miles of incorporated areas). The District's system includes an estimated 400 miles of drainage facilities. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. Stormwater discharges from these urbanized areas consist mainly of surface runoff from various land use activities such as residential, commercial, industrial, and agricultural. The constituents of concern and significance in these discharges are: total and fecal coliform, *enterococcus*, total suspended solids, biochemical oxygen demand, chemical oxygen demand, total organic carbon (TOC), oil and grease, heavy metals, nutrients, base/neutral and acid extractibles, pesticides, herbicides, and petroleum hydrocarbon components.

The County of Orange has an active surface water quality monitoring program in the permitted area. Dry weather sampling is performed bimonthly and wet weather sampling is performed only during significant storm events (>0.5 inches of rainfall). Stormwater runoff samples collected are analyzed for nutrients, trace metals, total coliform, oil and grease, specific conductance, dissolved oxygen, temperature, and pH. Sediment samples are also collected and analyzed for radiochemical constituents (only at Huntington Harbour), organics, and metals on a semi-annual basis. This monitoring program includes 21 water quality monitoring stations, 17 water level stations (12 of which are stream gaging stations),

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EXISTING FACILITIES AND PROGRAMS - CONT'D

and 31 precipitation stations. Most of the water quality monitoring stations are located at storm drain systems associated with drainage areas in which land use activities have been identified to significantly impact the beneficial uses of waters in Orange County. These drainage areas, characterized as residential, agricultural, commercial, and industrial, are mainly located upstream of Newport Bay. Those pollutants that have been identified to cause significant impairment to the beneficial uses of Newport Bay include nutrients (especially nitrates), pesticides, herbicides, and suspended solids. The sources of these pollutants are not fully identified. To protect the beneficial uses of waters of the state, the pollutants from all sources need to be controlled. Recognizing this, and the fact that stormwater discharges contain significant amounts of pollutants, the County of Orange, the incorporated cities of Orange County, and the Regional Board have all agreed that an areawide stormwater permit is the most effective way to develop and implement a comprehensive stormwater management program in a timely manner. This areawide stormwater permit will contain requirements with time schedules that will allow the County of Orange and the cities to address water quality problems caused by stormwater/urban runoff and to develop and implement management programs to reduce pollutants in stormwater system discharges and improve the water quality of the receiving waters.

PERMIT REQUIREMENTS

In accordance with Section 402(p)(3), as part of a program to reduce the pollutants in stormwater system discharges to the maximum extent practicable, the dischargers are required to submit existing management plans and programs being implemented in the localities, and information that could lead to successful identification of illegal discharges and sources of pollutants in stormwater system discharges. In addition, the dischargers will be required to adopt and implement effective management programs and control measures in accordance with time schedules approved by the Executive Officer of the Regional Board.

If existing management programs are not effective in controlling pollutant loading and achieving the water quality objectives of the receiving waters, additional programs shall be developed and implemented.

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PERMIT REQUIREMENTS - CONT'D

The permit also requires development and implementation of management programs (best management practices¹) during the life of the permit such that the quality of stormwater discharged can be improved and the water quality objectives of the receiving waters can be met ultimately. It is also expected that the beneficial uses of the receiving waters will be protected through implementation of best management practices.

Currently, the County of Orange has 21 monitoring stations throughout the system. The proposed order requires the dischargers to submit a stormwater system monitoring program that will meet the objectives, as outlined in Item VII.1., of the program.

BENEFICIAL USES

Stormwater flows which are discharged to storm drain systems in Orange County are tributary to various water bodies (inland surface streams, bays and tidal prisms, ocean waters, and lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, navigation, water contact recreation, non-contact water recreation, ocean commercial and nonfreshwater sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of areas of biological significance, wildlife habitat, preservation of rare and endangered species, marine habitat, and shellfish harvesting. The ultimate goal of this stormwater management program is to protect the beneficial uses of the receiving waters.

ANTIDEGRADATION ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for the stormwater discharges. The Regional Board strongly believes that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the

ANTIDEGRADATION ANALYSIS

quality of stormwater discharges and receiving waters will be improved, thereby protecting the beneficial uses of waters of the United States. This discharge is consistent with the federal and state antidegradation requirements and a complete antidegradation analysis is not necessary.

¹ Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency and control of stormwater runoff pollution.

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ANTIDegradation ANALYSIS

quality of stormwater discharges and receiving waters will be improved, thereby protecting the beneficial uses of waters of the United States. This discharge is consistent with the federal and state antidegradation requirements and a complete antidegradation analysis is not necessary.

PUBLIC WORKSHOP

The Regional Board recognizes the significance of Orange County's Stormwater/Urban Runoff Management Program and will conduct a workshop to provide for public involvement and participation in the development and implementation of the tentative waste discharge requirements. The purpose of the workshop is solely to solicit comments. The workshop will be held on Friday, June 8, 1990, at 9:30 a.m. at Hofert Hall, 39707 Big Bear Boulevard in Big Bear Lake. Public comments received at the workshop and during the comment period will be incorporated into the proposed waste discharge requirements, which will be considered for adoption at a subsequent Board meeting.

The Regional Board will conduct at least one workshop every year during the term of this permit to discuss the progress of the stormwater management program. The details of the annual workshop will be published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. The public hearing is scheduled to be held on Friday, July 13, 1990, at 9:00 p.m. at the City Council Chambers in Riverside. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 6809 Indiana Avenue, Suite 200, Riverside.

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WRITTEN COMMENTS

Interested persons are invited to submit written comments on the proposed waste discharge requirements and the Executive Officer's proposed determinations. Comments should be submitted by June 22, 1990, either in person or by mail to:

Joanne Lee
California Regional Water Quality Control Board
Santa Ana Region
6809 Indiana Avenue, Suite 200
Riverside, CA 92506-4298

INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Joanne Lee at (714)782-4130. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Thursday (excluding holidays).

REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications may leave his name, address, and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

Attachment 36

**California Regional Water Quality Control Board
Santa Ana Region**

**ORDER NO. 96-31
NPDES No. CAS618030**

**Waste Discharge Requirements
for
the County of Orange, Orange County Flood Control District
and
The Incorporated Cities of Orange County Within the Santa Ana Region
Areawide Urban Storm Water Run-off
Orange County**

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. On December 30, 1994, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as permittees), submitted National Pollutant Discharge Elimination System (NPDES) Application No. CA 8000180 and a Report of Waste Discharge for reissuance of their areawide storm water NPDES permit.
2. Section 402(p) of the federal Clean Water Act (CWA), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges from separate municipal storm drain systems, storm water discharges associated with industrial activity (including construction activities), and designated storm water discharges which are considered significant contributors of pollutants to waters of the United States (U.S.). On November 16, 1990, the United States Environmental Protection Agency (hereinafter US EPA) published regulations (40 CFR Parts 122, 123 and 124) which describe permit application requirements for storm water discharges pursuant to Section 402(p) of the CWA. Prior to EPA's promulgation of the final storm water regulations, the three counties (Orange, Riverside, and San Bernardino) and the incorporated cities within the jurisdiction of the Santa Ana Region requested areawide NPDES permits for urban storm water run-off.
3. On July 13, 1990, the Regional Board adopted Order No. 90-71 for urban storm water run-off from urban areas in Orange County within the Santa Ana Region. The County of Orange was named as the principal permittee and the Orange County Flood Control District (OCFCD) and the incorporated cities were named as the co-permittees. In order to more effectively carry out the requirements of this order, the permittees have agreed that the County of Orange will continue as principal permittee and the OCFCD and the incorporated cities will continue as co-permittees. Order 90-71 expired on July 1, 1995.

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The County of Orange, OCFCD, and Incorporated Cities
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4. Order No. 90-71 required the permittees to develop and implement a drainage area management plan (DAMP) and a storm water and receiving water monitoring plan, to eliminate illegal and illicit discharges to the storm drain systems and to enact the necessary legal authority to effectively prohibit such discharges. The overall goal of these requirements was to reduce pollutant loadings to surface waters from urban run-off to the maximum extent practicable (MEP)¹.
5. This order outlines the next step toward an effective program and specifies requirements to protect the beneficial uses of the waters of the U. S. The intent of this permit is to regulate pollutant discharges, identify and focus on those areas which threaten the beneficial uses and improve water quality in the Region in a timely manner. This order regulates urban storm water run-off² from areas under the jurisdiction of the permittees.
6. The Report of Waste Discharge (the permit renewal application) included the following major components:
 - a. Summary of status of current Storm Water Management Program
 - b. Proposed Plan of Storm Water Quality Management Activities for 1995-2000
 - c. The Drainage Area Management Plan
 - d. A Model Water Quality Ordinance
 - e. An Enforcement Consistency Guide
 - f. A Reconnaissance Survey Field Inspection and Documentation Manual
7. The permittees serve a population of approximately 2.6 million, occupying an area of approximately 511 square miles (including both unincorporated areas and the limits of 31 cities). The permittees have jurisdiction over and /or maintenance responsibility for storm water conveyance systems within Orange County. The County's systems include an estimated 400 miles of storm drain systems. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. The project area is shown on Attachment A. The major storm drain systems and drainage areas in Orange County which are within this Region are shown on Attachment B. A portion of the Orange County drainage area is within the jurisdiction of the San Diego Regional Board and is currently regulated under an order issued by that Board.

¹ Maximum Extent Practicable (MEP) means to the maximum extent possible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, fiscal feasibility, public health risks, societal concerns, and social benefits.

² Urban storm water run-off includes those discharges from residential, commercial, industrial and construction areas within the permitted area and excludes discharges from feedlots, dairies and farms.

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8. The permittees may lack legal jurisdiction over storm water discharges into their systems from some of the State and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges.
9. Storm water discharges consist of surface run-off generated from various land uses in all the hydrologic drainage areas which discharge into the water bodies of the U. S. The quality of these discharges varies considerably and is affected by land use activities, basin hydrology and geology, season, the frequency and duration of storm events, and the presence of illegal disposal practices/illicit connections. Nationwide studies in urban areas have shown that urban run-off typically contains significant quantities of pollutants. Preliminary results from urban storm water monitoring programs within the permitted area indicate that the major pollutants of concern are certain heavy metals, sediment, chemical oxygen demand (COD), pesticides, herbicides, and nutrients.

The 1989, 1991, and 1994 Water Quality Assessments by the Regional Board identified impairment of a number of water bodies within the permitted area. The beneficial uses of these water bodies have been found to be threatened or impaired due to point and non-point source discharges.

10. Certain activities that generate pollutants present in storm water runoff are beyond the ability of the permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear and leaching of naturally-occurring minerals from local geology.
11. Storm water discharges to the storm drain systems in Orange County are tributary to various water bodies of the Region. The permitted area can be subdivided into five tributary watersheds: the San Gabriel River drainage area, the Huntington Harbor and Bolsa Bay drainage area, the Greenville-Banning Channel drainage area, the Santa Ana River drainage area, and the Newport Bay drainage area (see Attachment B). These watersheds are tributary to the Pacific Ocean. The surface water bodies in Orange County include:

Inland Surface Streams

- a. Santa Ana River, Reaches 1 and 2,
- b. Silverado Creek (tributary to Santiago Creek),
- c. Santiago Creek, Reaches 1, 2, 3, and 4 (tributary to the Santa Ana River),
- d. San Diego Creek, Reaches 1 and 2 (tributary to Newport Bay),

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- e. San Joaquin Freshwater Marsh (tributary to San Diego Creek),
- f. All other tributaries to these Creeks: Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash, Black Star Creek, Carbon Canyon Creek, Coyote Creek and other tributaries to these washes,

Bays, Estuaries, and Tidal Prisms

- g. Anaheim Bay,
- h. Sunset Bay,
- i. Bolsa Bay and Bolsa Chica Ecological Reserve,
- j. Lower and Upper Newport Bay,
- k. Tidal Prism of Santa Ana River (to within 1000 feet of Victoria Street) and Newport Slough, Santa Ana Salt Marsh,
- l. Tidal Prism of San Gabriel River (River Mouth to Marina Drive),
- m. Tidal Prisms of Flood Control Channels Discharging to Coastal or Bay Waters (e.g. Huntington Harbor),

Ocean Waters

Nearshore Zone

- n. San Gabriel River to Poppy Street in Corona Del Mar,
- o. Poppy Street to Southeast Regional Boundary,

Offshore Zone

- p. Waters between Nearshore Zone and Limit of State Waters,

Lakes and Reservoirs

- q. Irvine Lake (Santiago Reservoir), and
- r. Laguna, Peters Canyon, and Rattlesnake Reservoirs.

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11. (cont'd)
The beneficial uses of these water bodies include: municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, navigation, hydropower generation, water contact recreation, non-contact water recreation, commercial and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat, preservation of rare, threatened or endangered species, marine habitat, shellfish harvesting, spawning, reproduction and development of aquatic habitats, and estuarine habitat. The ultimate goal of this storm water management program is to protect the beneficial uses of the receiving waters.
12. The Santa Ana River Basin is the major watershed within the jurisdiction of the Regional Board. The lower Santa Ana River Basin (downstream from Prado Basin) includes the Orange County drainage areas and the Upper Santa Ana River Basin includes the San Bernardino and the Riverside drainage areas. Within the Region, generally the San Bernardino County drainage areas drain to the Riverside County drainage areas, and Riverside County drainage areas discharge to Orange County.
13. Within the Region, run-off from the San Bernardino County areas is generally conveyed to the Riverside County areas through the Santa Ana River or other drainage channels tributary to the Santa Ana River. These flows are then discharged to Reach 2 of the Santa Ana River through Prado Basin (Reach 3 of the Santa Ana River). Most of the flow in Reach 2 is recharged in Orange County. During wet weather, some of the flow is discharged to the Pacific Ocean through Reach 1 of the Santa Ana River.
14. The three county areas within this Region are regulated under three areawide permits for urban storm water run-off. These areawide NPDES permits are:
 - a. Orange County, NPDES No. CAS618030;
 - b. Riverside County, NPDES No. CAS618033; and
 - c. San Bernardino County, NPDES No. CAS618036.
15. Studies conducted by the EPA, the states, flood control districts and other entities indicate the following major sources for urban storm water pollution nationwide:
 - a. Industrial sites where appropriate pollution control and best management practices (BMPs)³ are not implemented;
 - b. Construction sites where erosion and siltation controls and BMPs are not implemented; and
 - c. Urban run-off where the drainage area is not properly managed.

³ Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of storm water run-off pollution.

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16. To address the industrial and construction sites, the State Board issued two statewide general NPDES permits: one for storm water run-off from industrial sites (NPDES No. CAS000001, General Industrial Activities Storm Water Permit) and the second one for storm water run-off from construction sites (NPDES No. CAS000002, General Construction Activity Storm Water Permit). In addition, the Regional Board adopted Order No. 94-005, NPDES NO. CA 8000279, for storm water run-off from facilities owned and/or operated by Caltrans, which includes freeways and highways, and Order 94-7, NPDES No. CA 8000336 for concentrated animal feeding operations, including dairies. The Regional Board issued and continues to issue individual storm water permits for certain industrial facilities within the Region.
17. One of the major components of these statewide permits and the Caltrans permit is the development and implementation of a storm water pollution prevention plan (SWPPP).
18. Most industrial activities (some light industrial activities are exempt) and construction sites on five acres or more are required to get coverage under these statewide general permits.
19. The Regional Board administers compliance with the State's General Industrial Activities Storm Water Permit and the General Construction Activity Storm Water Permit. However, in most cases, the industries and construction sites discharge into storm drains and/or flood control facilities owned and operated by the permittees. These industries and developers are also regulated under local laws and regulations. Therefore, a coordinated effort of the permittees and the Regional Board staff is critical to avoid duplicative and overlapping storm water regulatory activities. A memorandum of understanding between the permittees and the Regional Board may be appropriate to efficiently implement the storm water regulations for industries and construction sites at the local level.
20. The permittees have agreed to continue to notify Regional Board staff when conditions are observed during their routine activities which result in a threat or potential threat to water quality. This also includes failure to obtain coverage under the general storm water permits.
21. The permittees have developed project conditions of approval for new developments to be implemented at the time of grading or building permit issuance for individual sites on five acres or more, with the intent to comply with the General Construction Activity Storm Water Permit.
22. The permittees own/operate facilities where industrial or related activities take place that may have an impact on storm water quality. Some of the permittees also enter into contracts with outside parties to carry out municipal related activities that may also have an impact on storm water quality. These facilities and related activities include, but are not limited to, street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape and swimming pool maintenance activities, storm

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drain system maintenance activities and the application of herbicides, algaecides and pesticides. As part of this order, the permittees will prepare an environmental performance report for appropriate public facilities under their jurisdiction, and develop and implement best management practices for those activities found to require pollution prevention measures. Non-storm water discharges from these facilities and/or activities could also affect water quality. This order prohibits non-storm water discharges from public facilities unless the discharges are exempt under Section III, Discharge Limitations, 3 & 5 of this order or are permitted by the Regional Board under an individual NPDES permit.

23. Successful implementation of the provisions and limitations in this order will require the cooperation of all the public agency organizations within Orange County having programs/activities that have an impact on storm water quality. A list of these organizations is included in Attachment C. As such, these organizations are expected to actively participate in implementing the Orange County NPDES Storm Water Program. The Regional Board has the discretion and authority to require non-cooperating entities to participate in this areawide permit or obtain individual storm water discharge permits, pursuant to 40 CFR 122.26(a).
24. The major focus of storm water pollution prevention is the development and implementation of appropriate drainage area management plan (DAMP) including best management practices (BMPs). The ultimate goal of the urban storm water management program is to support attainment of water quality consistent with the water quality objectives for the receiving waters in order to protect beneficial uses through the implementation of the DAMP. The permittees developed and submitted a DAMP for approval, which was approved on May 3, 1994.
25. The DAMP is a dynamic document and the permittees have implemented, or are in the process of implementing, the various elements of the DAMP. This order requires the permittees to continue to implement the BMPs listed in the DAMP and to effectively prohibit illegal and illicit discharges to the storm drain system.
26. Urban run-off contains pollutants from privately owned and operated facilities such as residences, businesses, private and/or public institutions, and commercial establishments. Therefore, a successful storm water management plan should include the participation and cooperation of the public, businesses, the permittees and the regulators. The DAMP has a strong emphasis on public education.
27. The Orange County DAMP defined a management structure for the permittees' compliance effort, a formal agreement to underpin cooperation, and detailed municipal efforts to develop, implement, and evaluate various BMPs or control programs in the areas of public agency activities, public information, new development and construction, public works construction, industrial discharger identification, and illicit discharger/connection identification and elimination. The DAMP also defined an extensive surface water quality and sediment monitoring program.

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28. In order to characterize storm water discharges, to identify problem areas, to determine the impact of urban run-off on receiving waters, and to determine the effectiveness of the various BMPs, an effective monitoring program is critical. From 1990 through 1995, the principal permittee administered the monitoring program for the permittees which included storm water monitoring, receiving water monitoring, dry weather monitoring and sediment monitoring. The permit application included a summary of monitoring data collected during 1991-1994. The monitoring program did not identify any specific pollutant sources which could be targeted for special pollutant control programs. The monitoring data indicated spatial differences in water quality between Orange County's major watersheds. Some of the monitoring data collected to date may be used to develop baseline water quality data for future evaluation of program effectiveness.
29. The Strategic Plan and Initiatives (June 22, 1995) for the State Water Resources Control Board and the Regional Water Quality Control Boards recognizes the importance of an integrated watershed management approach. The Regional Board also recognizes that a watershed management program should integrate all related programs, including the storm water programs. Consistent with this approach, an integrated monitoring program could be developed with the cooperation of all the stakeholders, including the permittees in the three counties, and the Regional Board. The Regional Board will coordinate the activities within the watershed and seek participation of the permittees.
30. Any illegal dumping and illicit/illegal connections and discharges⁴ to the storm drains could contribute to storm water and other surface water contamination. A reconnaissance survey of the municipal storm drain systems (open channels and underground storm drains) is being conducted by the permittees. The permittees are required to detect, identify and eliminate illicit/illegal discharges. Additionally, the permittees are also required to develop a program to prohibit illegal/illicit connections to their storm drains and flood control facilities.
31. The County of Orange obtains its authority to control pollutants in storm water discharges, to prohibit illegal discharges/illicit connections, to control spills, and to require compliance and carry out inspections of the storm drain systems in the County of Orange from the Orange County Flood Control Act, Orange County Water Pollution Ordinance, and various county ordinances which address industrial wastes and waste discharges within the unincorporated areas of Orange County and contract cities. The permittees have various forms of legal authority in place, such as charters, State Code provisions for General Law cities, city ordinances, and applicable portions of municipal codes and the State Water Code, to regulate storm water/urban run-off discharges.

⁴ Illegal discharge means any discharge (or seepage) to the municipal separate storm sewer that is not composed entirely of storm water except for the authorized discharges listed in Section III of this permit. Illegal discharges include the improper disposal of wastes into the storm sewer system.

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In order to insure countywide consistency and to provide a legal underpinning to the entire Orange County Storm Water Program, a model water quality ordinance was completed on August 15, 1994 and is available to the permittees for adoption.

32. Early identification of potential storm water impacts and mitigation measures can significantly reduce storm water pollution problems. The permittees should consider these impacts and appropriate mitigation measures in the planning procedures and in the California Environmental Quality Act (CEQA) review process for specific projects, Master Plans, etc. The County of Orange already requires a Water Quality Management Plan which addresses permanent post-construction BMPs, in addition to the SWPPP required by the statewide general permit for construction activity.
33. Successful implementation of the provisions and limitations in this order will require the cooperation of all the public agency organizations within Orange County having programs/activities that have an impact on storm water quality (e.g. Fire Department, Building and Safety, Code enforcement, etc.). As such, these organizations are expected to actively participate in implementing this areawide storm water program.
34. In accordance with the Clean Water Act and its implementing regulations, this order requires the permittees to develop and implement programs and policies necessary to control the discharge of pollutants in urban run-off to waters of the U. S. to the maximum extent practicable.
35. The legislative history and the preamble to the federal storm water regulations indicate that the Congress and the U.S. EPA were aware of the difficulties in regulating urban storm water run-off solely through traditional end-of-pipe treatment. However, it is the Regional Board's intent that this order shall achieve attainment and protection of the beneficial uses of receiving waters. This order, therefore, includes Receiving Water Limitations required to implement water quality objectives and to prevent nuisance and water quality impairment in receiving waters. In accordance with Section 402 (p) of the Clean Water Act, this order requires the permittees to implement control measures in accordance with the approved DAMP that will reduce pollutants in storm water discharges to the maximum extent practicable. The Receiving Water Limitations require the implementation of control measures that are technically and economically feasible as necessary to protect beneficial uses and attain water quality objectives of the receiving waters.
36. The Regional Board finds that the unique aspects of the regulation of storm water discharges through municipal storm sewer systems, including intermittent discharges, difficulties in monitoring and limited physical control over the discharge, will require adequate time to implement and evaluate the effectiveness of best management practices and to determine whether they will adequately protect receiving waters. Therefore, the permit includes a procedure for determining whether storm water discharges are causing

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continuing and recurring exceedances of receiving water limitations and for evaluating whether the DAMP must be revised. The permittees will be in compliance with the Receiving Water Limitations so long as it complies with that procedure.

37. A revised Water Quality Control Plan (Basin Plan) was adopted by the Regional Board and became effective on January 24, 1995. The Basin Plan contains water quality objectives and beneficial uses for water bodies in the Santa Ana Region. The Basin Plan also incorporates by reference all State Board water quality control plans and policies including the 1990 Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and the 1974 Water Quality Control Policy for Enclosed Bays and Estuaries of California (Enclosed Bays and Estuaries Plan).
38. The requirements contained in this order are necessary to implement the plans and policies described in Finding 36, above. These plans and policies contain numeric and narrative water quality standards for the water bodies in this Region. This order does not contain numeric effluent limitations for any constituents because the impact of the storm water discharges on the water quality of the receiving waters has not yet been fully determined. Continuation of water quality/biota monitoring and analysis of the data are essential to make that determination.
39. The permittees may petition the Regional Board to issue a separate NPDES permit to any discharger of non-storm water into storm drain systems that they own or operate.
40. The permittees have developed a Storm Water Implementation Agreement between the County, its cities and the Orange County Flood Control District as required under Order No. 90-71.
41. The storm water regulations require public participation in the storm water management program development and implementation. As such the permittees are required to solicit and consider all comments received from the public and submit copies of the comments to the Executive Officer of the Regional Board. In considering the public comments, the permittees may modify reports, plans, or schedules prior to submittal to the Executive Officer.
42. In accordance with California Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
43. The Regional Board has considered anti-degradation requirements, pursuant to 40 CFR 131.12 and State Board Resolution 68-16, for this discharge. The Regional Board finds that the storm water discharges are consistent with the federal and state anti-degradation requirements and a complete anti-degradation analysis is not necessary.

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44. The Regional Board has notified the permittees and interested parties of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
45. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

IT IS HEREBY ORDERED that the permittees, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

I. RESPONSIBILITIES OF PRINCIPAL PERMITTEE

The principal permittee shall be responsible for the overall program management and shall:

1. Conduct chemical and biological water quality monitoring of the storm drain system outfalls as agreed upon by the Executive Officer of the Regional Board.
2. Develop criteria for inspections of the municipal separate storm drain systems.
3. Conduct inspections of the storm drain systems within its jurisdiction.
4. Implement management programs (within its jurisdiction), monitoring programs, and related plans as required by this order.
5. Enact and revise policies/ordinances necessary to establish legal authority as required by the Federal Storm Water Regulations.
6. Respond and/arrange for responding to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc. to prevent or reduce the discharge of pollutants to storm drain systems and waters of the U.S.
7. Prepare and submit to the Executive Officer of the Regional Board unified reports, plans, and programs as required by this order.

The activities of the principal permittee should include, but not be limited to, the following:

8. Coordinate permit activities and participate in any subcommittees formed as necessary, to coordinate compliance activities with this order.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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9. Provide technical and administrative support and inform the co-permittees of the progress of other pertinent municipal programs, pilot projects, research studies, etc.
10. Coordinate the implementation of areawide storm water quality management activities such as public education, pollution prevention, household hazardous waste collection, etc.
11. Develop and implement mechanisms, performance standards, etc., to promote uniform and consistent implementation of BMPs among the permittees.
12. Pursue enforcement actions as necessary within its jurisdiction to ensure compliance with storm water management programs, ordinances and implementation plans including physical elimination of undocumented connections and illicit discharges.
13. In conjunction with the other permittees, implement the BMPs listed in the approved DAMP.
14. Monitor the implementation of the plans and programs required by this order and determine their effectiveness in protecting beneficial uses.
15. Coordinate all the activities with the Regional Board including the submittal of all reports, plans, and programs as required under this order.
16. Obtain public input for any proposed management and implementation plans where applicable.
17. Cooperate in watershed management programs and regional and/or statewide monitoring programs.

II. RESPONSIBILITIES OF THE CO-PERMITTEES

The co-permittees shall be responsible for the management of storm drain systems within their jurisdictions and shall:

1. Implement management programs, monitoring programs, implementation plans and all BMPs outlined in the DAMP within each respective jurisdiction as required by Order No. 96-31.
2. Adopt the Orange County Water Quality Ordinance or the equivalent legislation necessary to establish and maintain adequate legal authority as required by the Federal Storm Water Regulations.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
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3. Conduct storm drain system inspections in accordance with the criteria developed by the principal permittee.

The co-permittees' activities should include , but not be limited to, the following:

4. Participate in committees or subcommittees formed by the principal permittee to address storm water related issues to comply with this order.
5. Review, approve, implement, and comment on all plans, strategies, management programs, monitoring programs, as developed by the principal permittee or any subcommittee to comply with this order.
6. Pursue enforcement actions as necessary to ensure compliance with the storm water management programs, ordinances and the implementation plans including physical elimination of undocumented connections and illicit discharges.
7. Conduct and coordinate with the principal permittee any surveys and characterizations needed to identify the pollutant sources and drainage areas.
8. Submit storm drain system maps with periodic revisions as necessary.
9. Respond to emergency situations such as accidental spills, leaks, illegal discharges/illicit connections, etc. to prevent or reduce the discharge of pollutants to storm drain systems and waters of the U.S.
10. Prepare and submit all reports to the principal permittee in a timely manner.

III. DISCHARGE LIMITATIONS

1. The permittees shall prohibit illicit/illegal discharges from entering into the municipal separate storm sewer systems (municipal storm drain systems) and require controls to reduce the discharge of pollutants to the maximum extent practicable.
2. The discharge of storm water from permittees' municipal storm drain systems to waters of the United States containing pollutants which have not been reduced to the maximum extent practicable is prohibited.
3. The following discharges need not be prohibited by the permittees unless identified by the permittees as a source of pollutants to the receiving waters.
 - a. discharges composed entirely of storm water,

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
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- b. covered by NPDES permits or written clearances issued by the Regional or State Board
- c. from potable water line flushing and other potable water sources,
- d. fire hydrant testing and flushing,
- e. air conditioning condensation,
- f. landscape irrigation, lawn garden watering and other irrigation waters,
- g. passive foundation drains,
- h. passive footing drains,
- i. water from crawl space pumps,
- j. dechlorinated swimming pool discharges,
- k. non-commercial vehicle washing,
- l. diverted stream flows,
- m. rising ground waters and natural springs,
- n. ground water infiltration as defined in 40 CFR 35.2005 (20) and uncontaminated pumped groundwater,
- o. flows from riparian habitats and wetlands,
- p. street wash water and run-off from fire fighting (program descriptions shall address discharges or flows from fire fighting only where such discharges are identified as significant sources of pollutants to waters of the United States),
- q. waters not otherwise containing wastes as defined in California Water Code Section 13050 (d), and
- r. other types of discharges identified and recommended by the permittees and approved by the Regional Board.

For purposes of this order, a discharge may include storm water and other types of discharges as indicated above.

4. If it is determined by the permittees that any of the preceding discharges cause or contribute to violations of water quality standards or are significant contributors of pollutants to waters of the U.S., the permittees shall prohibit these discharges from entering the storm drain system.
5. Non-storm water discharges from public agency activities into waters of the U.S. are prohibited unless the non-storm water discharges are permitted by an NPDES permit or are included in Item 3., above. If permitting or immediate elimination of the non-storm water discharges is impractical, the permittees shall include in the Environmental Performance Report, required under Section V., Provision 18., of this order, a proposed plan to eliminate the non-storm water discharges in a timely manner.
6. The permittees shall reduce the discharge of pollutants to the storm water conveyance systems to the maximum extent practicable.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
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IV. RECEIVING WATER LIMITATIONS

1. Receiving water limitations have been established based on beneficial uses, water quality objectives, and water quality standards contained in the Basin Plan, and amendments thereto, and on ambient water quality. They are intended to protect the beneficial uses and attain the water quality objectives contained in the Basin Plan. The discharge of urban storm water, or non-storm water, from a municipal storm sewer system for which the permittees are responsible under the terms of this permit shall not cause continuing or recurring impairment of beneficial uses or exceedances of water quality objectives. The permittees will not be in violation of this provision so long as they are in compliance with the requirements set forth in 1.a.
 - a. If the Executive Officer determines that a continuing or recurring impairment of beneficial uses or exceedances of water quality objectives has been caused by urban storm water discharges from the municipal storm sewer system, the following steps shall be taken:
 - i. The Executive Officer will evaluate the adequacy of the permittees' implementation of the approved DAMP based on the permittees' submitted reports and other relevant information. The Executive Officer will determine if implementation of the approved DAMP has a reasonable likelihood of preventing future continuing or recurring impairment of beneficial uses or exceedances of water quality objectives resulting from urban storm water discharges. If the Executive Officer makes this determination, the permittees are required to continue implementing the approved DAMP.
 - ii. If the Executive Officer determines that implementation of the approved DAMP will not have a reasonable likelihood of preventing future impairment of beneficial uses or exceedances of water quality objectives, the permittees shall, upon notice from the Executive Officer, do the following:
 - A. Submit a report that includes an evaluation of the relative contribution of the urban storm water discharges to the impairment of beneficial uses or the exceedances of water quality objectives. The report shall address the persistence, the significance, and to the extent feasible, the causes of the impairment or exceedance, and the technical and economic feasibility of control actions available to the permittees to reduce or eliminate the impairment or exceedance.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
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- B. Submit a report reviewing the approved DAMP to determine whether it should be revised so that there will be a reasonable likelihood of preventing future continuing or recurring beneficial use impairment or exceedances of water quality objectives, or whether revisions to achieve protection of beneficial uses or attainment of water quality objectives are technically or economically infeasible. If the report recommends revision of the approved DAMP, the report shall include a work plan to revise the plan so that it will have a reasonable likelihood of preventing future continuing or recurring beneficial use impairment or exceedance or water quality objectives. If the report concludes that no revisions are necessary to achieve protection of beneficial uses or attainment of water quality objectives, the report shall explain how implementation of the approved DAMP will achieve compliance. If the report determines that revisions to achieve protection of beneficial uses or attainment of water quality objectives are technically or economically infeasible, the permittees shall continue to comply with the DAMP, shall fully document this determination and shall make recommendations for actions to achieve compliance.
 - C. The permittees shall implement the work plan and the revised DAMP as approved by the Executive Officer.
 2. The Executive Officer shall review and approve or disapprove the reports required under Receiving Water Limitation 1. The reports may be submitted as part of the next Annual Report, or at some other time designated by the Executive Officer. So long as the permittees have complied with the procedures set forth in Receiving Water Limitation 1, they do not have to repeat the procedure for continuing or recurring exceedances of the same receiving water limitations. As appropriate, any determinations under this part or revisions to the approved DAMP may be considered by the Regional Board in a public meeting.

V. PROVISIONS

GENERAL

1. Permittees shall demonstrate compliance with all the requirements in this order and specifically with Section III. Discharge Limitations and Section IV. Receiving Water Limitations, through timely implementation of their approved Drainage Area Management Plan (DAMP) and any approved modifications, revisions, or amendments developed pursuant to this order. The approved DAMP, as included in the Report of Waste Discharge, including any approved amendments thereto, is hereby made an enforceable component of this order.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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2. The permittees shall implement all elements of the approved DAMP. Where the dates are different than those of the order, the dates in the order shall prevail. Any proposed revisions to the DAMP shall be submitted with the Annual Report to the Executive Officer of the Regional Board for review and approval. All approved revisions to the DAMP shall be implemented in a timely manner.
3. The permittees shall comply with Monitoring and Reporting Program No. 96-31 which is hereby made a part of this order and any revisions thereto. The Executive Officer is authorized to revise the Monitoring and Reporting Program and also to allow the permittees to participate in regional, statewide, national or other monitoring programs in lieu of Monitoring and Reporting Program No. 96-31.
4. Upon approval by the Executive Officer of the Regional Board, all plans, reports and subsequent amendments as required by this order shall be implemented and shall become an enforceable part of this order. Prior to approval by the Executive Officer, these plans, reports and amendments shall not be considered as an enforceable part of this order.
5. The permittees shall report to the Executive Officer of the Regional Board:
 - a. Any enforcement actions and discharges of storm or wastewaters, known to the permittees, which may have an impact on human health or the environment,
 - b. Any suspected or reported activities on federal, state, or other entity's land or facilities, where the permittees do not have any jurisdiction, and where the suspected or reported activities may be contributing pollutants to waters of the U.S.
6. The permittees shall not issue any grading permit for construction activities which will disturb five acres or more (or less than five acres, if it is part of a larger common plan of development or sale which is five acres or more) until proof of coverage with the State's General Construction Activity Storm Water Permit is verified. The proof of coverage may include a letter from the Regional Board office, a copy of the Notice of Intent, Waste Discharger Identification number, etc.
7. The permittees shall identify all illegal and or illicit connections by February 1, 1997 and submit a report of the findings by February 28, 1997 including a schedule for elimination of any identified illicit connection and for periodic inspections of the storm drain facilities.
8. Permit application and special NPDES program requirements contained in 40 CFR 122.21 (a), (b), (d)(2), (f), (p); 122.41 (a), (b), (c), (d), (e), (f), (g), (h), (i), (j), (k), (l); and 122.42 (c) are incorporated into this order by reference.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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IMPLEMENTATION AGREEMENT

9. No later than May 31, 1996, the permittees shall submit to the Executive Officer of the Regional Board a copy of the existing Storm Water Program Implementation Agreement with authorized signatures of each of the permittees. Any further revisions to the implementation agreement shall be forwarded to the Executive Officer of the Regional Board within 30 days of approval by the permittees.

LEGAL AUTHORITY

10. The permittees shall adopt the proposed Water Quality Ordinance, or its equivalent. The permittees shall review their existing grading and erosion control ordinances and determine the need for any revision. Upon adoption of the ordinances, but no later than July 31, 1997 each permittee shall certify to the Regional Board that it has adequate legal authority to control the discharges of pollutants into the municipal storm drain system and that it has satisfied the requirements of 40 CFR Section 122.26(d)(2)(i)(A-F). The certification may be submitted jointly by all permittees.

ENFORCEMENT/COMPLIANCE STRATEGY

11. The Permittees shall implement the Enforcement Consistency Guide, dated 8/15/94, or an equivalent enforcement strategy, in order to enforce the Water Quality Ordinance. Upon implementation, but no later than July 31, 1997, each permittee shall certify to the Regional Board that the guide or similar policies are in place for their enforcement staff. Before implementation, this guide and its equivalent must include the following:
 - a. A mechanism to determine compliance of industrial facilities, commercial facilities, and construction sites with storm water ordinances and concerns;
 - b. A program to monitor and control the pollutants in storm water discharges to the municipal system from industrial facilities that the permittees determines are contributing to a substantial pollutant loading to the municipal storm drain system. The program shall identify priorities and procedures for inspections and establishing and implementing control measures.
12. The permittees shall develop a training program and offer it to the staff of existing industrial and construction inspection programs, to raise concerns with regard to storm water requirements.
13. The permittees will continue to provide notification to the Regional Board regarding storm water related information gathered during site inspections of industrial and construction sites regulated by the Statewide General Storm Water Permits.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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PUBLIC EDUCATION AND OUTREACH

14. The permittees will continue to implement the public education efforts already underway and shall implement all of the proposed efforts contained in the permit application. Any proposed changes shall be reported in the Annual Report.
15. When feasible, the permittees shall participate in joint outreach with other programs including, but not limited to, other municipal storm water programs to ensure that a consistent message on storm water pollution prevention is brought to the public.
16. The permittees shall develop public education materials to encourage the public to report illegal dumping from residential, industrial, construction and commercial sites into public streets, storm drains and other water bodies.
17. The permittees shall develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency.

MUNICIPAL FACILITIES

18. The permittees shall prepare an Environmental Performance Report, as stated in the amended DAMP, to address public agency facilities and activities not currently required to obtain coverage under the State's general storm water permits. This report may include a pollution prevention strategy to ensure that the public agency facilities and/or activities that are currently not required to obtain coverage under the State's general storm water permits are not sources of pollutants into the waters of the U.S. A report shall be submitted to the Executive Officer of the Regional Board by July 31, 1997, identifying the extent of the investigation and all findings of the Environmental Performance Report as it pertains to storm water quality. Thereafter, the permittees shall include in the annual report for each year the actions taken by the permittees to eliminate discharges of pollutants to waters of the U.S., identified by the permittees, at public agency facilities.

MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES

19. This order authorizes the discharge of storm water run-off from construction projects that may result in land disturbance of five (5) acres or more (or less than five acres, if it is part of a larger common plan of development or sale which is five acres or more) that are under ownership and/or direct responsibility of any of the permittees.
20. Prior to commencement of construction activities, the permittees shall notify the Executive Officer of the Regional Board of the proposed construction project. Upon completion of the construction project, the Executive Officer shall be notified of the completion of the project.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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21. The permittees shall develop and implement a storm water pollution prevention plan (SWPPP) and a monitoring program that is specific for the construction project prior to the commencement of any of the construction activities. The SWPPP shall be kept at the construction site and released to the public and/or Regional Board staff upon request.
22. The SWPPP and the monitoring program for the construction projects shall be consistent with the requirements of the latest version of the State's General Construction Activity Storm Water Permit.
23. The permittees shall give advance notice to the Executive Officer of the Regional Board of any planned changes in the construction activity which may result in non-compliance with the latest version of the State's General Construction Activity Storm Water Permit.
24. All other terms and conditions of the latest version of the State's General Construction Activity Storm Water Permit shall be applicable.

NEW DEVELOPMENT (INCLUDING RE-DEVELOPMENT)

25. Within 90 days of the issuance of this order, the permittees shall begin implementation of the new development BMPs (DAMP, Appendix G, dated September 1993) and BMPs for public works construction (DAMP, Appendix H) that were developed under Order 90-71. Each permittee shall certify to the Regional Board by November 15, 1996, that these guidelines or the equivalent are being implemented and enforced.
26. Within 120 days of the issuance of this order, the permittees shall review their planning procedures and CEQA document preparation processes to insure that storm water-related issues are properly considered. If necessary, these processes shall be revised to include storm water requirements for evaluation of appropriate mitigation measures.
27. The permittees shall, through conditions of approval, insure proper maintenance and operation of any permanent flood control structures installed in new developments. The parties responsible for the maintenance and operation of the facilities shall be identified.

FISCAL RESOURCES

28. The permittees shall prepare and submit a unified fiscal analyses to the Executive Officer of the Regional Board. The fiscal analysis shall be submitted with the Annual Report document no later than November 15th of each year and shall, at a minimum, include the following:
 - a. Each permittee's expenditures for the previous fiscal year,
 - b. Each permittee's budget for the current fiscal year,
 - c. A description of the source of funds, and
 - d. Each permittee's estimated budget for the next fiscal year.

RBSA_37055

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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PERMIT EXPIRATION AND RENEWAL

29. This order expires on March 1, 2001 and the permittees must file a Report of Waste Discharge (permit application) no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements. The Report of Waste Discharge shall, at a minimum, include the following:
 - a. Any revisions to the Drainage Area Management Plan including, but not limited to, all the activities the permittees propose to undertake during the next permit term, goals and objectives of such activities, an evaluation of the need for additional source control and/or structural BMPs, any proposed pilot studies, etc.;
 - b. Changes in land use and/or population including map updates; and
 - c. Any significant changes to the storm drain systems, outfalls, detention or retention basins or dams, and other controls including map updates of the storm drain systems.
 - d. To incorporate new or revised program elements and compliance schedule(s) necessary to comply with Section IV of this order.

30. This Order may be modified, revoked or reissued prior to its expiration date for the following reasons:
 - a. To address significant changes in conditions identified in the technical reports required by the Regional Board which were unknown at the time of the issuance of this order;
 - b. To incorporate applicable requirements of statewide water quality control plans adopted by the State Water Resources Control Board or any amendments to the Basin Plan approved by the Regional Board, the State Board, and, if necessary, by the Office of Administrative Law; or
 - c. To comply with any applicable requirements, guidelines, or regulations issued or approved under the Clean Water Act, if the requirements, guidelines, or regulations contain different conditions or additional requirements than those included in this order.

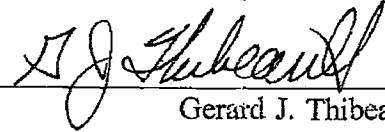
31. This order shall serve as a National Pollutant Discharge Elimination System (NPDES) Permit pursuant to Section 402 (p) of the Clean Water Act, or amendments thereto, and shall become effective ten days after the date of its adoption provided the Regional Administrator of the U. S. EPA has no objections. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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32. Order No. 90-71 is hereby rescinded.

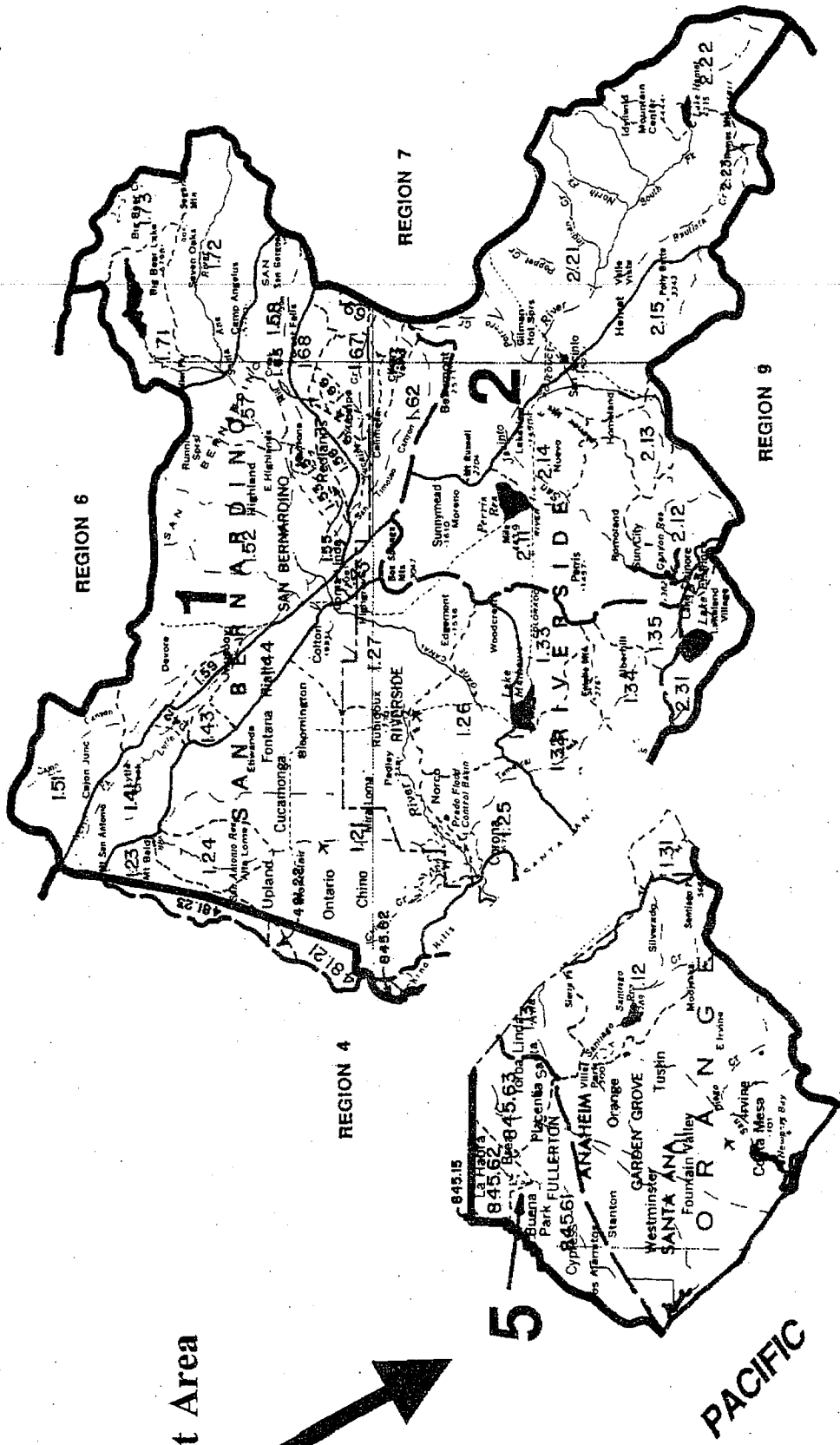
I, Gerard Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on March 8, 1996.



Gerard J. Thibeault
Executive Officer

Order No. 96-31
Attachment "A"

Order No. 96-31 (NPDES No. CAS618030) - cont'd
County of Orange, OCFCD, and Incorporated Cities
Area wide Urban Storm Water Runoff



Project Area



PACIFIC OCEAN



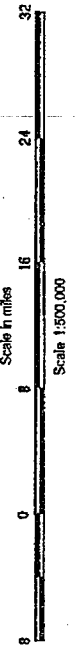
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State of California
REGIONAL WATER QUALITY CONTROL BOARD

Santa Ana Region (8)

SANTA ANA HYDROLOGIC BASIN PLANNING AREA (SA)

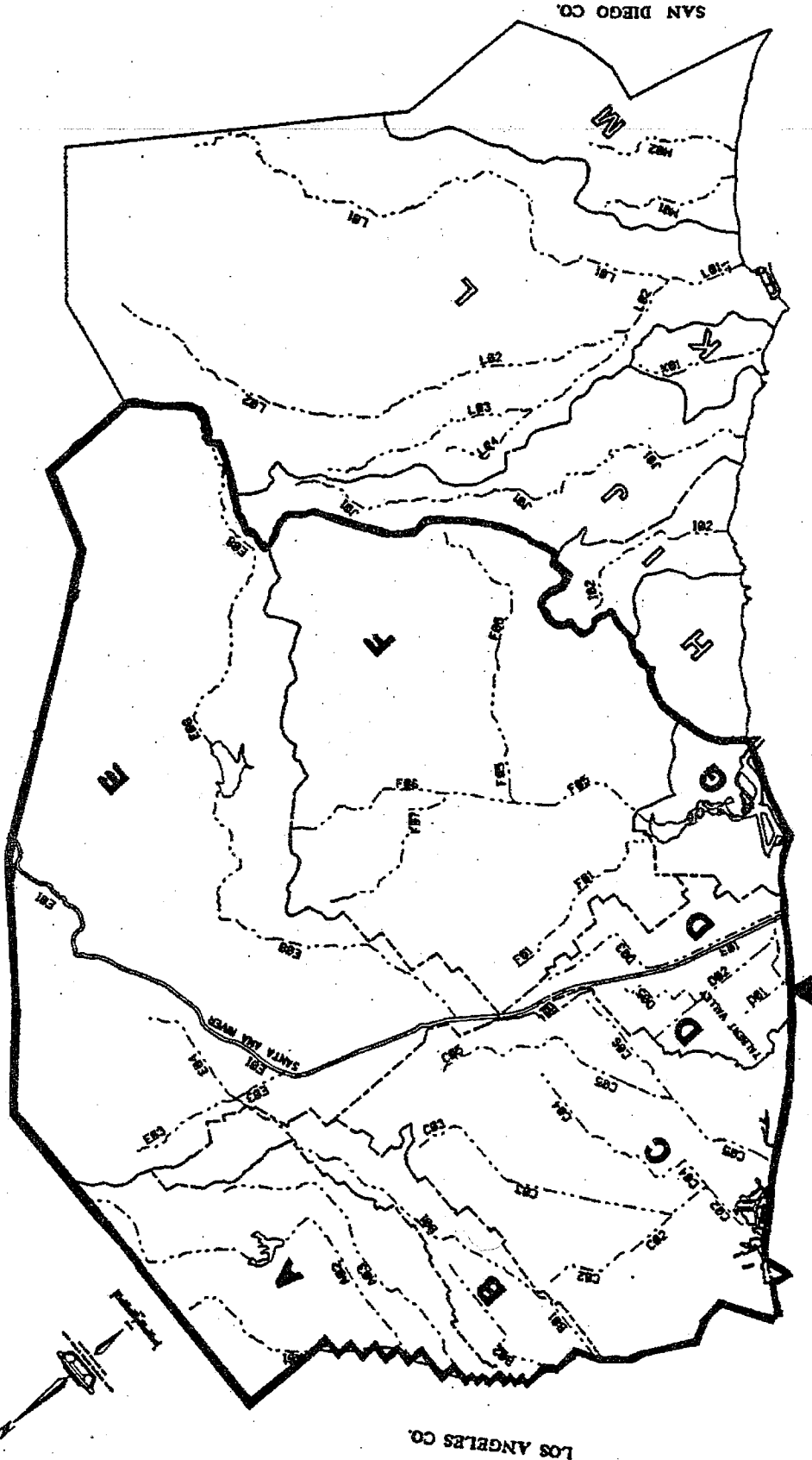
April 1973
Revised: July 1976
Revised: August 1986



Order No. 96-31
 Attachment "B"

Order No. 96-31 (NPDES No. CAS618030) - cont'd
 The City of Orange, OCFCD, and Incorporated Cities
 Area Urban Storm Water Runoff
 SAN BERNARDINO CO.

RIVERSIDE CO.



SAN DIEGO COUNTY ENVIRONMENTAL MANAGEMENT AGENCY
DRAINAGE AREAS AND MAJOR REGIONAL FLOOD CONTROL FACILITIES
NOVEMBER 1987 FIGURE 1

PACIFIC OCEAN

PROJECT AREA BOUNDARY LINE

LEGEND

- A,B - San Gabriel River Drainage Area
- C - Huntington Harbour & Bolsa Bay Drainage Area
- D - Greenville-Banning Channel Drainage Area
- E - Santa Ana River Drainage Area
- F,G - Newport Bay Drainage Area

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

Order No. 96-31
Attachment "C"

**LIST OF OTHER ENTITIES WITH THE POTENTIAL TO DISCHARGE
POLLUTANTS TO THE ORANGE COUNTY STORM WATER SYSTEM**

California Department of Transportation (Caltrans), District 12
Southern Pacific Railroad
Atchison, Topeka & Santa Fe Railway Company
Seal Beach Naval Weapons Station
Seal Beach Naval Reserve Center, Los Alamitos
U. S. Marine Corps Air Station, El Toro
National Forest Service

Universities and Colleges

University of California, Irvine
California State University, Fullerton
Chapman College
Coastline College
Cypress College
Fullerton College
Irvine Valley College
Golden West College
Orange Coast College
Rancho Santiago College

School Districts

Anaheim Elementary School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park Joint Union High School District
Centralia Elementary School District
Cypress Elementary School District
Fountain Valley Union High School District
Fullerton Joint Union High School District
Garden Grove Unified School District
Huntington Beach Elementary School District
Huntington Beach Union High School District
Irvine Unified Union High School District
La Habra Joint Union High School District
Los Alamitos Unified School District
Lowell Joint Union High School District
Magnolia Elementary School District
Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

**Order No. 96-31
Attachment "C" (cont'd)**

Placentia Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

Hospitals

Anaheim General Hospital
Brea Community Hospital
Chapman General Hospital
Children's Hospital of Orange County, Orange
Coastal Communities Hospital, Santa Ana
Fairview Hospital
FHP Hospital, Fountain Valley
Fountain Valley Regional Hospital and Medical Center
Hoag Hospital, Newport Beach
Kaiser Foundation Hospital, Anaheim
Orange County Community Hospital, Buena Park
Pacifica Community Hospital, Huntington Beach
Placentia Linda Community Hospital
Santa Ana Hospital and Medical Center
St. Joseph's Hospital, Orange
U.C. Irvine Medical Center
Vencor Hospital of Orange County, Westminster
Whittier Hospital and Medical Center, Buena Park

Water/Wastewater Agencies

Santa Ana Watershed Project Authority
Irvine Ranch Water District
Los Aliso Water District
El Toro Water District
San Bernardino County Flood Control District
Riverside County Flood Control & Water Conservation District
L.A. County Department of Public Works
County Sanitation Districts of Orange County
Orange County Water District
Metropolitan Water District

**California Regional Water Quality Control Board
Santa Ana Region**

**Monitoring and Reporting Program No. 96-31
NPDES No. CAS618030**

**for
the County of Orange, Orange County Flood Control District,
and
Incorporated Cities of Orange County Within the Santa Ana Region
Areawide Urban Storm Water Run-off**

I. GENERAL

1. Revisions of the monitoring and reporting program are appropriate to ensure that the permittees are in compliance with requirements and provisions contained in this order. Revisions may be made under the direction of the Executive Officer at any time during the term, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples collected.
2. The Executive Officer is authorized to allow the permittees to participate in statewide, national, or other monitoring programs in lieu of this monitoring program.
3. All sample collection, handling, storage, and analysis shall be in accordance with 40 CFR Part 136 or other methods approved by the Executive Officer.
4. The permittees are authorized to complement their monitoring data with other monitoring sources provided the monitoring conditions and sources are similar to those in the Santa Ana Watershed.
5. The permittees shall implement the Orange County Water Quality Monitoring Program (submitted as part of the permit application) until development and implementation of other acceptable monitoring programs.

II. OBJECTIVES

The overall goal of this monitoring program is to develop and support an effective watershed management program. The following are the major objectives:

1. To develop and support an effective municipal non-point source control program.
2. To define water quality status, trends, and pollutants of concern associated with municipal storm water discharges.
3. To characterize pollutants associated with municipal storm water discharges and to assess the influence of urban land uses on water quality and the beneficial uses of receiving waters.
4. To identify significant water quality problems related to urban storm water discharges.

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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5. To identify other sources of pollutants in storm water run-off to the maximum extent possible (e.g., atmospheric deposition, contaminated sediments, other non-point sources, etc.).
6. To identify and prohibit illicit discharges.
7. To identify those waters, which without additional action to control pollution from urban storm water discharges cannot reasonably be expected to attain or maintain applicable water quality standards required to sustain the beneficial uses in the Basin Plan.
8. To evaluate the effectiveness of existing municipal storm water quality management programs, including an estimate of pollutant reductions achieved by the structural and nonstructural BMPs implemented by the permittees.
9. To evaluate costs and benefits of proposed municipal storm water quality control programs to the stakeholders including the public.

The Regional Board recognizes that these objectives may not be attainable during this permit period and authorizes the Executive Officer to evaluate and to determine adequate progress toward meeting each objective.

III. MONITORING PROGRAM REQUIREMENTS

The permittees shall develop and submit for approval of the Executive Officer an integrated watershed monitoring program geared towards achieving the above stated goals. This program may be developed in cooperation with the permittees from the San Bernardino and Riverside counties. The Executive Officer or his/her designated representative(s) shall facilitate the coordination meetings or subcommittees formed to achieve this goal. The development and implementation of the monitoring program shall be in accordance with the time schedules prescribed by the Executive Officer. At a minimum, the program shall include the following:

1. Uniform guidelines for quality control, quality assurance, data collection and data analysis.
2. A mechanism for the collection, analysis and interpretation of existing data from local, regional or national monitoring programs. These data sources may be utilized to characterize different storm water sources; to determine pollutant generation, transport and fate; to develop a relationship between land use, development size, storm size and the event mean concentration of pollutants; to determine spatial and temporal variances in storm water quality and seasonal and other bias in the collected data; and to identify any unique features of the Santa Ana Watershed. The permittees are encouraged to use data from similar studies, if available.
3. A description of the monitoring program including:
 - a. The number of monitoring stations;

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

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- b. Monitoring locations within flood control channels, bays and estuaries, coastal areas, major outfalls, and other receiving waters;
 - c. Environmental indicators (e.g., ecosystem, biological, habitat, chemical, sediment, stream health, etc.) chosen for monitoring;
 - d. Parameters selected for field screening and for laboratory work; and
 - e. Total number of samples to be collected from each station, frequency of sampling during wet and dry weather, short duration or long duration storm events, type of samples (grab, 24-hour composite, etc.), and the type of sampling equipment.
4. A mechanism for analyzing the collected data and interpreting the results including an evaluation of the effectiveness of the management practices, and need for any refinement of the management practices.
 5. A description of the responsibilities of all the participants in this program including cost sharing.

IV. REPORTING

1. All progress reports and proposed strategies and plans required by this order shall be signed by the principal permittee and copies shall be submitted to the Executive Officer of the Regional Board under penalty of perjury.
2. The permittees shall submit an **ANNUAL PROGRESS REPORT** to the Executive Officer of the Regional Board and to the Regional Administrator of the U.S. EPA, Region 9, no later than November 15th, of each year. This progress report may be submitted in a mutually agreeable electronic format. At a minimum, annual progress report shall include the following:
 - a. A review of the status of program implementation and compliance (or non-compliance) with the schedules contained in this order;
 - b. An assessment of the effectiveness of control measures established under the illicit discharge elimination program and the Drainage Area Management Plan. The effectiveness may be measured in terms of how successful the program has been in eliminating illicit/illegal discharges and reducing pollutant loads in storm water discharges;
 - c. An assessment of any storm water management program modifications made to comply with Clean Water Act requirements to reduce the discharge of pollutants to the maximum extent practicable;
 - d. A summary and analysis of monitoring results from the previous year and any changes to the monitoring program for the following year;

Order No. 96-31 (NPDES No. CAS618030) - cont'd
The County of Orange, OCFCD, and Incorporated Cities
Areawide Urban Storm Water Run-off

30 of 30

- e. A fiscal analysis progress report as described in Section V., Provision, 25., of this order;
 - f. A draft workplan which describes the proposed implementation of the DAMP for next fiscal year. The workplan shall include clearly defined tasks, responsibilities, and schedules for implementation of the storm water program and each permittee's actions for the next fiscal year; and
 - g. Major changes in any previously submitted plan/policies.
3. The permittees shall be responsible for the submittal of all required information/materials needed to comply with this order in a timely manner to the principal permittee. All such submittals shall be signed by a duly authorized representative of the permittee under penalty of perjury.

V. REPORTING SCHEDULE

All reports required by this order shall be submitted to the Executive Officer of the Regional Board in accordance with the following schedule:

ITEM	DUE DATE
Report on Illicit/Illegal Discharges & Storm Water Program Implementation Agreement	February 28, 1997
Legal Authority & Enforcement Strategy Certification	July 31, 1997
Environmental Performance Report	July 31, 1997
New Development BMP Certification	November 15, 1996
Proposed Monitoring Program	July 31, 1997
Annual Report/Fiscal Analysis	November 15th of each year

Ordered by



Gerard J. Thibeault
Executive Officer
March 8, 1996

**California Regional Water Quality Control Board
Santa Ana Region
2010 Iowa Avenue, Suite 100
Riverside, CA 92507-2409**

FACT SHEET

March 8, 1996

ITEM: 12

SUBJECT: Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County within the Santa Ana Region, Storm Water Runoff Management Program, Orange County, Order No. 96-31 (NPDES No. CAS 618030)

PROJECT

The attached pages contain information concerning an application for renewal of waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit, which prescribes waste discharge requirements for urban storm water runoff from the cities and the unincorporated areas in Orange County within the jurisdiction of the Santa Ana Regional Board. On December 30, 1994, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as permittees), submitted National Pollutant Discharge Elimination System (NPDES) Application No. CAS 618030 (Report of Waste Discharge) for reissuance of their areawide storm water NPDES permit. The permit application was submitted in accordance with the previous NPDES permit (Order No. 90-71, NPDES No. CA 8000180) which expired on July 1, 1995. Additionally, the permit application follows guidance provided by staff of the State Water Resources Control Board (State Board) and the Regional Water Quality Control Boards (Regional Boards).

CLEAN WATER ACT REQUIREMENTS

The 1987 amendments to the Clean Water Act (CWA) required municipal separate storm drain systems and industrial facilities to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the United States Environmental Protection Agency (EPA) promulgated the final storm water regulations. Prior to EPA's promulgation of the final storm water regulations, the counties of Orange, Riverside and San Bernardino requested for areawide NPDES permits for storm water runoff. On July 13, 1990, the Regional Board issued Order No. 90-71 to the permittees. This areawide NPDES permit is being considered for renewal by the Regional Board in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

PROJECT AREA

The permitted area is delineated by the Los Angeles County-Orange County Boundary line on the northwest, the San Bernardino-Orange County boundary line on the north and northeast, the Riverside County-Orange County boundary line on the east, the Santa Ana Regional Board-San Diego Regional Board boundary line on the southeast, and the Pacific Ocean on the southwest (see Attachment A of the order). The permittees serve a population of approximately 2.6 million, occupying an area of approximately 511 square miles (including both unincorporated areas and the limits of 31 cities). The permittees have jurisdiction over and /or maintenance responsibility for storm water conveyance systems within Orange County. The County's systems include an estimated 400 miles of storm drain systems. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. Storm water discharges from urbanized areas consist mainly of surface runoff from residential, commercial, and industrial developments. In addition, there are storm water discharges from agricultural land uses, including farming and animal operations. However, the CWA specifically excludes agricultural discharges from regulation under this program. Other areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the permittees are excluded from the area requested for coverage under this permit application. This includes the following areas and activities:

- Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, schools, colleges, universities, and highways;
- Native American tribal lands; and
- Utilities and special district properties.

WATERSHED MANAGEMENT

To efficiently manage the water resources of the Region, it is critical to have a holistic approach. The entire storm drain system in Orange County is not controlled by a single entity; the County of Orange, the OCFCD, several cities, Caltrans, U.S. Army Corps of Engineers and a number of other entities own, operate and/or manage the storm drain systems. In addition to the cities, the County and the OCFCD, there are a number of other significant contributors of storm water runoff to these storm drain systems. These include: large institutions such as the State University facilities, schools, hospitals, etc.; federal facilities such as Department of Defense facilities; State agencies such as Caltrans, water and wastewater management agencies such as Orange County Water District, Metropolitan Water District etc.; the National Forest Service; state parks; and entertainment centers such as Disneyland. The quality and quantity of storm water runoff into and out of Orange County also depends upon runoff from San Bernardino and Riverside County areas which are tributary to Orange County. Some of the runoff from Orange county enters systems controlled by other entities, such as the Los Angeles County Flood Control District, which is under the Los Angeles Regional Board's jurisdiction.

Fact Sheet - continued

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Order No. 96-31 (NPDES No. CAS 618030)

Some of these facilities such as U.S. Marine Corps, Tustin and El Toro Air Stations, Disneyland and Caltrans are already under individual permits for storm water runoff. The Los Angeles and San Diego Regional Boards have also issued areawide storm water permits for areas within their jurisdiction.

Cooperation and coordination among all the stakeholders are essential for efficient and economical management of the watershed. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders.

EXISTING PROGRAMS AND FUTURE DIRECTION

As required under Order No. 90-71, the permittees developed a Drainage Area Management Plan (DAMP) which was approved by the Executive Officer of the Regional Board on April 29, 1994. The DAMP includes a number of best management practices and a very extensive public education program. The monitoring program includes 89 monitoring stations within streams and flood control channels and 21 stations within the bays, estuaries and the ocean. The findings and conclusions from these monitoring stations and monitoring programs of other municipal permittees (Riverside and San Bernardino Counties) may be used to identify problem areas and to evaluate the effectiveness of the DAMPs. The future direction of some of these program elements will depend upon the results of the ongoing studies and holistic approach to watershed management.

Other elements of the storm water management program include identification and elimination of illegal/illicit discharges and establishment of adequate legal authority to control pollutants in storm water discharges. Most of the cities and the County of Orange have completed a survey of their storm drain systems to identify illegal/illicit connections and have adopted appropriate ordinances to establish legal authority. The remaining permittees are in the process of complying with these requirements.

It appears that coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties and a watershed approach to managing storm water are the essential factors in mapping the future course of the storm water program.

BENEFICIAL USES

Storm water flows which are discharged to municipal storm drain systems in Orange County are tributary to various water bodies (inland surface streams, bays and tidal prisms, ocean waters, and lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service supply, groundwater recharge, navigation, hydropower generation, water contact recreation, non-contact water recreation, commercial and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat, preservation of rare, threatened or endangered species, marine habitat, shellfish harvesting, spawning, reproduction and development of aquatic habitats, and estuarine habitat. The ultimate goal of this storm water management program is to protect the beneficial uses of the receiving waters.

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Order No. 96-31 (NPDES No. CAS 618030)

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ANTIDegradation ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these storm water discharges. The Regional Board finds that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the quality of storm water discharges and receiving waters will be improved, thereby protecting the beneficial uses of waters of the United States. This is consistent with the federal and state antidegradation requirements and a complete antidegradation analysis is not necessary.

PUBLIC WORKSHOP

The Regional Board recognizes the significance of Orange County's Storm Water/Urban Runoff Management Program and will conduct, participate, and/or assist with any workshop during the term of this permit to promote and discuss the progress of the storm water management program. The details of the workshop will be published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this permit may register their name, mailing address and phone number with the Regional Board office at the address given below.

PUBLIC HEARING

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements. The public hearing is scheduled to be held on Friday, March 8, 1996 at 9:30 a.m. at the Newport Beach City Council Chambers, 3300 Newport Boulevard, Newport Beach, CA. Further information regarding the conduct and nature of the public hearing concerning these waste discharge requirements may be obtained by writing or visiting the Santa Ana Regional Board office, 3737 Main Street, Suite 500, Riverside, CA 92501-3339.

INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Laurie Taul at (909) 782-4906. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 10:00 a.m. and 4:00 p.m., Monday through Thursday (excluding holidays).

REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group for applications may leave his name, address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

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Order No. 96-31 (NPDES No. CAS 618030)

RECOMMENDATION

Adopt Order 96-31, NPDES No. CAS 618030, as presented.

In addition to the permittees, comments were solicited from the following agencies and/or persons:

U. S. Environmental Protection Agency - Robert Wills / Eugene Bromley, Pretreatment, Sludge, and Storm Water Section

U.S. Army District, Los Angeles, Corps of Engineers - Permits Section

NOAA, National Marine Fisheries Service

U.S. Fish and Wildlife Service - Carlsbad

State Water Resources Control Board - Ted Cobb, Office of the Chief Counsel

State Water Resources Control Board - Archie Matthews / Bruce Fujimoto, Division of Water Quality

State Department of Water Resources - Glendale

California Regional Water Quality Control Board, North Coast Region (1) - Nathan Quarles

California Regional Water Quality Control Board, San Francisco Bay Region (2) - Tom Mumley

California Regional Water Quality Control Board, Central Coast Region (3) - Adam White

California Regional Water Quality Control Board, Los Angeles Region (4) - Mark Pumford

California Regional Water Quality Control Board, Central Valley Region (5) - Wayne Pierson / Pamela Barksdale

California Regional Water Quality Control Board, Central Valley Region (5R), Redding - Carole Crowe

California Regional Water Quality Control Board, Central Valley Region (5F), Fresno - Darrel Everson

California Regional Water Quality Control Board, Lahontan Region (6SLT), South Lake Tahoe - John Short

California Regional Water Quality Control Board, Lahontan Region (6V), Victorville - Tom Rheiner

California Regional Water Quality Control Board, Colorado River Basin Region (7) - Orlando Gonzales

California Regional Water Quality Control Board, San Diego Region (9) - Deborah Jayne

State Department of Fish and Game - Long Beach

State Department of Health Services - Santa Ana

State Department of Parks and Recreation - Henry R. Agonia

Orange County Health Care Agency - Robert Merryman

South Coast Air Quality Management District, Diamond Bar - James Lents

Caltrans, District 12, Santa Ana - Praveen Gupta

Southern Pacific Railroad

Atchison, Topeka & Santa Fe Railway Company

Seal Beach Naval Weapons Station

Seal Beach Naval Reserve Center, Los Alamitos

U. S. Marine Corps Air Station, El Toro - Lt. Col. Bevis

National Forest Service

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Uribe And Associates - Pete Uribe
Bill Dendy & Associates - Bill Dendy
Woodward-Clyde - Bob Collacott
The Irvine Company - Sat Tamaribuchi
Building Industry Association - Governmental Affairs Council
Southern California Association of Governments, Los Angeles - Tabi Hiwot

Universities and Colleges (Chancellor)

University of California, Irvine
California State University, Fullerton
Chapman College
Coastline College
Cypress College
Fullerton College
Irvine Valley College
Golden West College
Orange Coast College
Rancho Santiago College

School Districts (Superintendent)

Anaheim Elementary School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park Joint Union High School District
Centralia Elementary School District
Cypress Elementary School District
Fountain Valley Union High School District
Fullerton Elementary School District
Fullerton Joint Union High School District
Garden Grove Unified School District
Huntington Beach Elementary School District
Huntington Beach Union High School District
Irvine Unified Union High School District
La Habra Joint Union High School District
Los Alamitos Unified School District
Lowell Joint Union High School District
Magnolia Elementary School District
Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District
Placentia Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

RBSA_37071

Fact Sheet - continued
Order No. 96-31 (NPDES No. CAS 618030)

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Hospitals (Administrator)

Anaheim General Hospital
Brea Community Hospital
Chapman General Hospital, Orange
Children's Hospital of Orange County, Orange
Coastal Communities Hospital, Santa Ana
Fairview Hospital
FHP Hospital, Fountain Valley
Fountain Valley Regional Hospital and Medical Center
Hoag Hospital, Newport Beach
Kaiser Foundation Hospital, Anaheim
Orange County Community Hospital, Buena Park
Pacifica Community Hospital, Huntington Beach
Placentia Linda Community Hospital
Santa Ana Hospital and Medical Center
St. Joseph's Hospital, Orange
U.C. Irvine Medical Center
Vencor Hospital of Orange County, Westminster
Whittier Hospital and Medical Center, Buena Park

Environmental Organizations

Sierra Club, Orange County Chapter
Sierra Club, Los Angeles Chapter - Dick Hingson
Natural Resources Defense Council (NRDC)
Cousteau Society
Amigos De Bolsa Chica
Audobon Sea & Sage Chapter
Huntington Beach Wetlands Conservancy
Surfrider Foundation

Newspapers

Orange County Register
Los Angeles Times
Press Enterprise

Major Water/Wastewater Agencies

Santa Ana Watershed Project Authority - Neil Cline
Irvine Ranch Water District - General Manager
Los Alisos Water District - General Manager
El Toro Water District - General Manager
San Bernardino County Flood Control District - Naresh Varma
Riverside County Flood Control & Water Conservation District - Jason Christie
L.A. County Department of Public Works - Gary Hildebrand
County Sanitation Districts of Orange County - Blake Anderson
Orange County Water District - Bill Mills
Metropolitan Water District - Ed Means

RBSA_37072

Attachment 37

1 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

2 SANTA ANA REGION

3 CAROLE H. BESWICK, CHAIRPERSON

4

5 In the Matter of:)
6 Public Hearing re: All items)
on the Agenda, including but)
7 not limited to, Renewal of Waste)
Discharge Requirements,)
8 County of Orange, Orange County)
Flood Control District, and)
9 Incorporated Cities of)
Orange County, Urban Storm Water)
10 Runoff Management Program)
(NPDES No. CAS618030);)
11 Public Hearing on Clean Water)
Act Section 305(b) Integrated)
12 Report/Clean Water Section 303(d))
List of Impaired Waterbodies;)
13 Other Business)
14 _____)

14

15

16 TRANSCRIPT OF PROCEEDINGS

17 Santa Ana, California

18 Friday, April 24, 2009

19

20

21

22 Reported by:

23 ALLISON SWANSON
CSR No. 13377

24

25 Job No.:
B1632WQWB

1 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

2 SANTA ANA REGION

3 CAROLE H. BESWICK, CHAIRPERSON

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5 In the Matter of:)
6 Public Hearing re: All items)
7 on the Agenda, including but)
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9 Discharge Requirements,)
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11 Flood Control District, and)
12 Incorporated Cities of)
13 Orange County, Urban Storm Water)
14 Runoff Management Program)
15 (NPDES No. CAS618030);)
16 Public Hearing on Clean Water)
17 Act Section 305(b) Integrated)
18 Report/Clean Water Section 303(d))
19 List of Impaired Waterbodies;)
20 Other Business)

21

22

23 TRANSCRIPT OF PROCEEDINGS, taken at

24 220 Civic Center Plaza, Santa Ana,

25 California, commencing at 9:00 a.m.

on Friday, April 24, 2009, heard before the

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD,

SANTA ANA REGION, reported by ALLISON SWANSON,

CSR No. 13377, a Certified Shorthand Reporter

in and for the State of California, pursuant

to Notice.

25

1 APPEARANCES:
2 CHAIRPERSON: Carole H. Beswick
3 BOARD MEMBERS: William Ruh
4 Fred Ameri
5 Steven PonTell
6 Richard A. Freschi
7 EXECUTIVE OFFICER: Gerard J. Thibeault
8 ASSISTANT EXECUTIVE
9 OFFICER: Kurt V. Berchtold
10 LEGAL COUNSEL: David Rice
11 Frances McChesney
12 ENVIRONMENTAL
13 PROGRAM MANAGER: Joanne E. Schneider
14 SUPERVISING WATER
15 RESOURCE CONTROL
16 ENGINEER: Michael J. Adackapara
17 CHIEF OF STORMWATER: Mark E. Smythe
18 INFORMATION
19 SYSTEMS ANALYST: Kevin Heinemann
20 EXECUTIVE ASSISTANT: Felipa Carrillo
21
22
23
24
25

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1 Santa Ana, California, Friday, April 24, 2009

2 9:00 a.m.

3

4

5 MS. BESWICK: We can begin.

6 I would like to welcome board member PonTell.

7 Steve, if you wouldn't mind introducing

8 yourself to the audience.

9 MR. PON TELL: Hi. I'm Steve PonTell, Recreation.

10 I live in Ontario, but have a keen interest in

11 Big Bear Lake.

12 MS. BESWICK: Thank you.

13 All right. We're now going to move to item 12,

14 the Removal of Waste Discharge Requirements, County of

15 Orange, Orange County Flood Control District, and

16 Incorporated Cities of the County, Urban Storm Water Runoff

17 Management Program (NPDES No. 618030).

18 This will be a public hearing with the potential

19 of action to adopt the permit.

20 Mark Smythe, good morning.

21 MR. SMYTHE: Good morning, Madam Chair, members of

22 the Board. I'm Mark Smythe. I'm a Senior Environmental

23 Specialist. And I'm chief of the Coastal Stormwater Unit.

24 As the Chair said, we're here for a public

25 hearing for the Orange County MF4 permit. What I plan to

1 do today is give a brief history on the 19 years of stormwater
2 permits in this region and describe the process that led to
3 the tentative permit before you today.

4 Stormwater permits are part of the natural
5 solution to discharge elimination, or MPDS system. It was
6 established in 1972 with the Clean Water Act. For the first
7 15 years, the regulations primarily dealt with major point
8 sources such as sewage treatment plants and factories. But
9 as those came under better control and water quality was
10 still an issue, it was expanding to include other point
11 sources including stormwater.

12 The three regional board MS4 permits, one for
13 each county, were adopted in 1990.

14 Stormwater run off is regulated under four
15 different permits. The first is a statewide general
16 construction permit which deals with runoff from
17 construction sites over one acre within our region and
18 within the state.

19 The second is a general industrial stormwater
20 permit. This permit deals with runoff of industrial sites
21 as identified within the permit.

22 The third is the Cal Trans permit. That deals
23 with runoff from Cal Trans construction sites and runoff
24 from highways.

25 Most of the rest of the stormwater discharges

1 are regulated through the MS4 or Municipal Separate Storm
2 Sewer Permit. This includes runoff from municipal
3 activities, from industrial construction activities taking
4 place within the city's and county's jurisdiction, runoff
5 from commercial and service activities within their
6 jurisdiction, and runoff from residential activities within
7 their jurisdiction.

8 Stormwater permits and the MS4 permits, in
9 particular, are different than most MPDS permits.

10 A normal MPS permit is based on a numeric ethical
11 limit. That is, they're allowed to discharge a certain
12 amount of copper, a certain amount of trico chloroform. And
13 that's how you determine whether the facility is within
14 compliance with the permit.

15 But for MS4 permits and stormwater permits,
16 in general, because of the complexity of these flows,
17 historically, they have not had numeric ethical limits.
18 Although, MPL, and I'm going to be discussing that later,
19 are beginning to change that.

20 But for the most part, these permits are based
21 on implementing best management practices, or BMPs, to the
22 maximum extent practicable. Where MEP, maximum extent
23 practicable, takes into account such issues as the gravity,
24 the severity of the problem, the societal benefit from
25 addressing the problem, and technical and economic

1 feasibility of addressing the problem.

2 The MEP standard is addressed through an
3 iterative process. That's if water quality standards are
4 not being met, the permittee is expected to implement best
5 management practice. These can be anything from public
6 education-type best management practices to actual
7 structural best management practices such as trash booms.

8 Those PMBs are implemented and monitoring is
9 done to see if they're addressing the problem. If there are
10 still water quality exceedances (sic), then they are to
11 improved BMP, monitor, and continuing in that process.

12 So back in 1990, the first MS4 permits were
13 adopted here in this region. Because it was a new program,
14 it was -- the first permit was really a developmental
15 program-type permit. They were to develop -- their plan
16 for implementing this permit, this drainage area management
17 plan, and identify the PBPs they would be implementing to
18 meet the permit requirements. Such as catch basin stens
19 line and cleaning, street sweeping, fertilizer, pesticide
20 management within their own operations, and runoff from
21 post-construction -- well, runoff from post construction.

22 They also were to eliminate illicit connections
23 and illegal discharges, set up a public education program,
24 and start up a water quality monitoring program.

25 Six years later, the permit was reissued. And

1 pretty much stayed the same because it was first issued in
2 1990. In general, it didn't change. The emphasis was on
3 getting the program right. What did change was that there
4 were water quality ordinances and enforcement consistency
5 guides that were developed at the end of the first permit.
6 And those were adopted by the City and County as their means
7 of enforcing on illegal -- or illicit discharges and
8 connections.

9 And they required that statewide general
10 construction permit coverage would be shown prior to issuing
11 grading permits. This was kind of a hand-in-hand type
12 operation to make sure that prior to them issuing grading
13 permits, they had the proper permitting with the state.

14 As I said, not a lot changed between 1990 and
15 '96. But six years later, the 2002 permit, there were some
16 major program additions at that time.

17 Of course, the dam was still being implemented.
18 They were still required to address illicit discharges and
19 connections.

20 Public education added a standard in that they
21 needed to provide a certain number of impressions. That is,
22 if you put an ad on the radio, there's the estimate of how
23 many people hear the ad. That's added up to if you put
24 fliers in water bills, the number of people that receive
25 those water bills. So that would add up to a minimum number

1 of impressions to try to educate the public attitude, the
2 difference between sanitation drains and storm drains. And
3 they continue the water quality monitoring.

4 One of the new sets of programs started in 2002
5 were municipal inspections of construction sites, industrial
6 facilities, and commercial businesses.

7 There was also new development, structural BMPs
8 required. At that time their water quality management plan,
9 the plan they had used to address post-construction, not the
10 runoff pollutant during construction, but after a site's
11 been in -- is in use, the PBP that address the pollutant
12 flows coming from, say, new residences, from commercial
13 facilities, and from industrial facilities.

14 And for the first time, TMDLs were
15 incorporated. In 2002, there were three TMDLs in place for
16 Newport Bay and San Diego for nutrients, nitrogen and
17 phosphorus, and for sediment.

18 Because of the new programs that were
19 implemented in the 2002 permit, regional board staff
20 implemented an audit program of the 26 cities within the
21 region. And it took a month per city to do our initial
22 workup and analysis of the program up to that date. A
23 two-day audit, where we went over the program with the
24 permittees, went out in the field to ensure that their
25 inspectors were doing the job they were supposed to, and

1 then a period to write the report and to work with them on
2 addressing the problems we found within the program.

3 What we found was that most of the cities were
4 trying. No program was perfect, but most of the programs
5 were well on their way to getting to the point they needed
6 to be. However, there were five cities that had
7 substantially deficient programs that set them apart from
8 the rest. And those five cities received administrative
9 civil liabilities with assessments ranging from \$48,280
10 to \$126,480. And all five ACLs were paid by the cities
11 without needing hearings.

12 While the audits were going on, the end of this
13 permit was coming up. And so the County filed their report
14 of waste discharge, telling us what they had done during the
15 last permit term and what they wanted to do during the next
16 permit term.

17 The 2002 permit expired in January of '07 and
18 was administratively extended. And then during '07 and '08,
19 there were a series of meetings held between stakeholders
20 and regional staff, trying to flush out what the next permit
21 would look like.

22 The first draft was released November 10, 2008,
23 shortly followed by a public workshop. From that public
24 workshop it became apparent that the new development
25 standards would need work to get buy-in from all the

1 interested parties.

2 So a series of stakeholder meetings were set up
3 that ran for approximately three months. Meeting with --
4 I'll get to that later -- with the stakeholders. Because of
5 those meetings, and the progress of those meetings, the
6 comment deadline on that first draft was pushed out two
7 times, and finally on February 13th, we received comments on
8 the first draft.

9 The comments were addressed. A second draft
10 was released. Comments were received until April 9th on
11 that second draft. And finally, a third draft was released
12 on April 13th.

13 MS. BESWICK: Mark, just so I'm clear. There was
14 one deadline and it ended up being February 13?

15 THE WITNESS: It ended up being -- yes. We had
16 initially asked, at that public workshop, that the deadline
17 be December 30th because of the progress being made with the
18 stakeholders in the meeting, and kick it out, and then, in
19 fact, we kicked it one more time to February 13th.

20 All toll on comments, staff received 37 comment
21 letters on the first two drafts from which 244 comments were
22 extracted and are listed in the response comments you have
23 before you.

24 Now, even though that may seem like a lot, by
25 the time we hit the second and third drafts, the area of

1 concern was limited to two or three subsections of this
2 permit. And the majority of the permit has gone unchanged
3 through the last couple of draft permit cycles.

4 The three major areas that have seen change are
5 the commercial inspection program, the new development
6 program, and the addition of new TMDLs to the permit.

7 What I plan to do is to go over each of these
8 three sections, tell you what is in the current permit, the
9 2002 permit, and how these sections have changed over the
10 last three drafts.

11 For the commercial program, the 2002 permit,
12 the one that they're under right now, listed a certain
13 number of commercial entities that the cities and county
14 needed to inventory, prioritize, and inspect. Those
15 included automotive-related businesses, mobile cleaners,
16 painting operations, nursery operations, landscape, and
17 water feature cleaning enterprises.

18 And as I said, they were to be ranked on the
19 overall threat to water quality. Ranked high, medium, and
20 low. And that permit required that all high ranked
21 commercial entities be inspected by July 2003. And then for
22 the permittees to establish a program -- a framework for an
23 inspection and priority based program.

24 Now, when staff started writing the first draft
25 of the permit, and also during the audits, we saw some

1 problems with this program with some of the cities.

2 As I said, there are 26 cities. And by the
3 time we looked at the 2007/2008 annual report, we found
4 approximately a third of them had very few high prioritized
5 commercial facilities. This showed us there needed to be
6 changes to the program. And, therefore, within the first
7 draft of the permit, these were the changes that were made.

8 First, we moved mobile cleaners to their own
9 category. Mobile cleaners are kind of a beast among
10 themselves. They don't have headquarters in the city that
11 they operate. And they are there for a limited amount of
12 time. And so, really, it needed to be pulled into its own
13 program and a framework established to address those mobile
14 cleaners.

15 We also added some categories to that initial
16 list that you saw, including plastic pellet storage and
17 transport. And this works kind of hand-in-hand with the
18 whole statewide plastics initiative. There was also pest
19 control yards added to it, building materials retail. And
20 whereas the last one had automotive-related commercial
21 facilities, this one added other vehicles such as planes,
22 boats, and heavy equipment to the list.

23 And there were standards added to the number of
24 commercial facilities ranked high, medium, and low.

25 In this case, based on the city or county's

1 inventory, the top ten percent that represent the worst
2 water quality threat, based on the first draft, were
3 required to be ranked high and inspected annually. The next
4 40 percent with the highest water quality threat needed to
5 be ranked medium and inspected every two years. And the
6 remainder would be inspected every permit term.

7 As you imagine, we received comments on this
8 portion of the draft. And for the second draft, made some
9 changes. First of all, we acknowledged the possible
10 limitations on refusal of access.

11 We dropped some of the business categories. We
12 changed the mobile business program to a pilot program to
13 give them an opportunity to get a program off the ground.

14 And in the past permit restaurants were being
15 inspected on an annual basis. And while it was implied in
16 the first draft of the permit, we put it specifically in the
17 second draft of the permit so it would explicitly state
18 that.

19 Based on comments received on the second draft,
20 additional changes were made to the third draft. For one
21 thing, we dropped the medium category to 20 percent and
22 pushed the other 20 percent to low. But probably more
23 importantly, we provided an opportunity for the permittees
24 to develop an alternate inspection framework, a reporting
25 framework that would be approved by the executive officer.

1 All right. The second major area of change
2 deals with requirements for best management practices
3 implemented at new development.

4 Our first permit required structural best
5 management practices to address post-construction runoff
6 from new and significant development. Those types of BMPs
7 would include such things as catch basin inserts,
8 bio-filters, porous pavement, infiltration galleries, that
9 type of an actual structural BMP. Rather than site design
10 BMPs like putting a plant a certain way or reducing foot
11 prints.

12 Now, those BMPs really are only addressing one
13 effect of new development. And that's the increase of the
14 pollutant loading. What it is not affecting is the increase
15 in runoff. While there were requirements within the current
16 permit, the 2002 permit, that addressed the increased
17 runoff, they were general in nature and dealt with things to
18 be considered during the sequence process and when issuing
19 conditions of approval.

20 The thing to note is as development takes
21 place -- as you can see, on undeveloped land you have a lot
22 of infiltration, less runoff. As you get impermeable
23 surfaces, you decrease the amount of infiltration and
24 increase the amount of runoff. And not only do you increase
25 the amount of runoff because the structures are there to

1 speed stormwater to its ultimate receiving waters, you also
2 get flashes of high flows that can cause downstream erosion,
3 hydromodification, hydrological conditions of concerns, all
4 kinds of terms regarding scouring and downstream erosion
5 from this increased runoff.

6 One of the best ways to address that increase
7 in runoff is through low impact development. The goal of
8 low impact development is to mimic the hydrology that
9 existed prior to the development. By implementing BMPs that
10 increase infiltration to both evapotranspiration, harvesting
11 and reuse, and bioinfiltration, one can reduce the effective
12 impervious area of a site and reduce runoff.

13 Now, the effective part of EIA is where
14 hydraulic connectivity comes into play. If a building is
15 built, the pad and the roof form an impervious surface. The
16 water that would have normally infiltrated now runs off the
17 roof and does not have an opportunity to infiltrate. If
18 that runoff is directed directly to the gutter and then goes
19 into the MS4, that is part of the effective imperviousness of
20 the area. It does not give it a chance to infiltrate. It's
21 gone straight to the MS4.

22 However, if that downspout is connected to a
23 rain garden, to a cistern, to rain barrels, it is then given
24 the opportunity to infiltrate, and so does not add to the
25 effective impervious area. So LID was incorporated into the

1 first draft of the permit.

2 It required the use of LID BMPs where feasible
3 to address the pollutant loading and increase flow. And why
4 might it not be feasible? If you have areas of ground
5 water contamination or subsurface soil contamination, you
6 don't want to be infiltrating over that and spreading it.
7 You have a situation where you have high ground water and
8 increased infiltration may cause flooding. There may be
9 clay soils that even with soil amendment may not be amenable
10 to infiltration. And you may have issues of hillside
11 slippage due to increases in infiltration. Those are the
12 things that need to be taken under consideration when using
13 LID.

14 There was a standard for that LID. And that
15 was a 5 percent effective impervious area. That site needed
16 to look -- it looked like there was only 5 percent of it with
17 impervious surface. And the other 95 percent would allow
18 infiltration, be it through natural infiltration or
19 rerouting of other impervious areas to infiltrate other
20 areas.

21 There was ground water protection components
22 within this first draft, including a ten-foot vertical
23 separation to seasonal ground water. A 100-foot horizontal
24 separation of any supply wells. And that infiltration not
25 be used in high pollutant areas. There were alternative

1 requirements when LID would be infeasible, something else
2 would have to be done. It wouldn't be, "Well, we can't do
3 LID, so we're not doing anything."

4 Finally, public agencies were required to
5 inspect 50 percent of these structural treatments of BMPs
6 going on that will be developed to make sure they're being
7 properly maintained by the owners of those facilities.

8 Now, that was looking at pollutant load issues.
9 How did we address --

10 MR. PON TELL: Quick question. Inspected by whom?

11 MR. SMYTHE: Inspected by -- it was, at the time,
12 inspected by public agencies, by the city or by the county.
13 That has changed through the drafts, but that was the
14 initial requirement.

15 To address runoff issues, hydrological
16 conditions of concern, to make sure we were not getting
17 downstream erosion, if that 5 percent EIA was met, then it
18 was assumed that site, after its development, was mimicking
19 enough of the predevelopment conditions that there would
20 not be downstream erosion.

21 But if it was higher than a 5 percent EIA, then
22 there would be potential for downstream erosion, and so
23 additional studies were required. And if that downstream
24 erosion was to take place, then additional controls
25 would be required on-site.

1 MR. AMERI: Maybe you said it, but I didn't
2 understand. What if LID is not feasible, what would be the
3 alternatives?

4 MR. SMYTHE: There would be the potential for doing
5 it offsite. Michael, have you heard any other --

6 MR. AMERI: Regional --

7 MR. SMYTHE: Yes.

8 MR. AMERI: -- treatment. What else? What if not
9 regional not --

10 MR. ADACKAPARA: You have a few options.

11 One of the options is they could actually
12 establish an urban runoff fund and contribute to that fund.

13 The other option, you could go offsite and do
14 some other mitigation measures.

15 So there were a few options included. And
16 those are included in Section E of the permit. And I think
17 Mark is briefly going to go over that.

18 MR. AMERI: Okay. You are. Good.

19 MR. SMYTHE: All right.

20 So based on this first draft, this is where the
21 stakeholder groups got together and met the main group, met
22 eight times, maybe three, four hours each time. And other
23 sub groups got together and put together white papers. This
24 was the topic that predominated those discussions.

25 And, in fact, one of the first things that came

1 out of those discussions was we had multiple definitions of
2 what effective impervious area, EIA, really was. There were
3 a lot of different permutations that were brought up. And
4 kind of through the questions, used that as a standard.

5 One of the things that were incorporated into
6 the second draft was a shift from the 5 percent EIA to a
7 capture volume of the 85th percentile, 24-hour storm event.

8 There were also additional requirements for
9 prioritizing the LID BMPs. With preventative techniques
10 taking the highest priority, preserving natural drainage
11 features, so you don't have to mitigate. Or where mitigating
12 measures are needed, those were ranked too with infiltration
13 and evapotranspiration being the highest, going down to
14 harvest and reuse, and finally bioinfiltration.

15 And with regards to hydromodification, the
16 standard was changed from the 5 percent EIA to a capture
17 volume based on a two-year storm event.

18 A change was made -- in the first draft, if all
19 downstream waters were engineered so they could take the
20 flow, the first draft said it was assumed, then, there would
21 not be a hydrological condition of concern, and studies
22 weren't needed.

23 The second draft altered that so there was an
24 exception. If downstreamed water to the US -- or if
25 downstream waters included waters of the US, then a

1 hydrologic condition of concern study was needed, even if
2 those waters were engineered because of potential for
3 restoration.

4 And, finally, there was an option added to --
5 for the permittees to develop a watershed master plan to
6 deal with hydrological conditions of concern,
7 hydromodification on a watershed-type basis rather than on a
8 site-by-site basis.

9 And, finally, some criteria were added to the
10 method for determining whether LID BMPs would be infeasible
11 prior to allowing the alternatives or in lieu program.

12 Again, we received a number of comments. This
13 has been the issue that has continued to have comments come
14 in right up until last night.

15 And the third permit -- third draft, made the
16 following changes. To address ground water concerns,
17 regional board staff added that a pile monitor -- ground
18 water monitoring program be started by the committees to
19 address infiltration concerns. And all infiltration
20 activities be coordinated through the local ground water
21 agency.

22 The ten-foot vertical separation was changed to
23 a five-foot, based on comments received saying that if it
24 were at ten-foot, much of Orange County would be ineligible
25 for infiltration because of seasonal high ground water. The

1 model WQMP was -- that will be created by the permittees,
2 which was for EO approval, will be available for 30-day
3 public comment period prior to EO approval.

4 And it would change if all downstream waters
5 are hard to engineer to accept the proposed low, then,
6 again, we're going to the fact that it is assumed that
7 hydrological conditions of concern would not take place.
8 And so no hydrological conditions of concern analysis are
9 now needed. And the post-construction BMPs will need to be
10 inspected every four years instead of every two years. And
11 there's provision included for third party inspection of
12 those facilities.

13 The third portion of this permit that saw
14 changes were with the addition of new TMDLs. In 2002, the
15 only three permit -- three team deals adopted were the
16 nitrogen and phosphorent or nutrient TMDLs of
17 San Diego Creek and Newport Bay and the sediment TMDLs for
18 San Diego Creek and Newport Bay.

19 Real brief primer on TMDLs. It starts with
20 beneficial uses. "Beneficial uses" are the -- Beneficial
21 uses are the various waters in the region are established in
22 the basis plan. Those beneficial uses include things like
23 municipal drinking water supply, contact recreation,
24 non-contact recreation, warm and cold water fisheries, wild
25 life habitat, ground water recharge, and there's a number

1 more.

2 The basis plan lists water quality objectives
3 that need to be met to protect those beneficial uses. You
4 don't want too high tricho chloroform in waters that are
5 swimmable.

6 If water quality standards, that is, those water
7 quality objectives are exceeded or beneficial uses are not
8 supported or because there's degradation within the waters,
9 the water quality standards are not being met and the
10 water's placed on the impaired water list or the 303D list.
11 And that's something Pavlova Patally (phonetic) will be
12 speaking about in the next item.

13 When water goes on the 303D list, the total
14 maximum daily loads need to be calculated for those
15 pollutants for those waters. What the total maximum daily
16 load is is the amount of pollutant that can be discharged to
17 the water and still support the beneficial use.

18 That load is then split up among point sources
19 in the form of waste load allocation and non-point sources
20 for load allegations to meet that TMDL. For those waste
21 load allegations that address urban runoff, they're best
22 implemented through the MS4 permit.

23 So for the first draft of TMDL -- the first
24 draft permit, the TMDLs, we included the ones that had been
25 in the previous permit, the nitrogen, phosphorus, sediment

1 TMDLs for San Diego Creek and Newport Bay and added the
2 waste load allocations for the TMDL for Coyote Creek that
3 was adopted by Los Angeles Regional Board. And those were
4 for copper, lead, and zinc. This is a rather controversial
5 one.

6 If you take a look, Coyote Creek runs within
7 our region and then runs right along the LA and
8 Orange County -- and hence the LA Regional Board and
9 Santa Ana Regional Board boundary line. The majority of
10 Coyote Creek and the San Gabriel River, which it's
11 contributory to, are all under the jurisdiction of
12 Los Angeles Regional Board.

13 Los Angeles Regional Board determined that
14 there were impairments along the section of Coyote Creek,
15 and hence, the cities that discharge, even though they're
16 within our region, are part of that TMDL. Their discharge
17 goes into the water that's impaired.

18 Consequently, our MS4 permit requires the
19 cities within our region to comply with the LA Region's TMDL
20 for Coyote Creek. And it is not a one-way street. North of
21 this are the cities of Claremont and Pomona. Those are
22 within the LA Region. They're Los Angeles County cities.
23 They discharge, eventually, to Chino Creek, which is in our
24 region. And there are TMDLs coming up for Chino Creek that
25 we are going to expect the LA Regional Board to write into

1 their permit to address our TMDLs.

2 It is going both ways on this. It is a tricky
3 one because it's a political boundary between the two
4 regions rather than a watershed boundary between the two
5 regions.

6 Also some of the other TMDLs that have been
7 adopted since 2002 include feco coliform TMDL in
8 Newport Bay, organophosphorous pesticides for
9 San Diego Creek and Newport Bay, and an organochlorine
10 compounds for San Diego Creek and Newport Bay.

11 After we released this first draft, we received
12 comments from US CPA. Their comments stated that while the
13 Regional Board TMDLs for organochlorine compounds and for
14 selenium and for some other metals had been adopted by the
15 Regional Board, they had not yet been adopted by State Board
16 or approved by the Office of Administrative Law or EPA. So
17 they had not gone all the way through yet. And EPA had
18 promulgated TMDLs already for those waters. They had
19 already established numbers for those waters.

20 What was required was that those technical
21 TMDLs be listed within our MS4 permit as water quality
22 standards, or water quality objectives.

23 The second thing is they wanted -- it clearly
24 stated that permittees must comply with TMDL waste load
25 allocations and water column targets as water quality

1 objectives.

2 So those EPA-promulgated water column targets
3 for metals, that you see there, were included in our second
4 draft tentative permit. And also for the organochlorine
5 compounds.

6 After those changes were made, no further
7 changes were made in the third draft of the permit.

8 Comments. Most of the comments that we
9 received -- or all of the comments we received prior to
10 April 9th were included in your response to comments that
11 are part of your package. We received a number of comments
12 after April 9th, and I will address those one by one.

13 The first one was on April 9th, memo from
14 Geosyntec. It was a memo in response to a memo that had
15 been put out by Dr. Horner, who represented NRDC and had --
16 let's just say it was in response to his memo. It argued
17 with some of the points made in the memo and made additional
18 points of their own, regarding these issues.

19 The second was an e-mail from the
20 County of Orange, their counsel, asking that finding J52 be
21 changed for TMDLs. That change is actually in your errata
22 sheet. It is change --

23 MS. BESWICK: Is it the map one?

24 MR. SMYTHE: No, it is -- Michael, which is the J52,
25 which on the errata sheet? The finding 52, what errata

1 number is it? It was a reference to 40 CFR.

2 MR. ADACKAPARA: Finding 52, that was provided,
3 actually, by the county counsel.

4 MR. SMYTHE: Right. Is it on the errata sheet?

5 MR. ADACKAPARA: Yeah, it is on the errata sheet.

6 MR. SMYTHE: Which one is it?

7 MR. ADACKAPARA: It's number one on the errata sheet.

8 MR. SMYTHE: Thank you. Sorry.

9 That's number one on the errata sheet. So that
10 one was addressed.

11 And they also commented that the technical
12 TMDLs, the EPA-promulgated TMDLs, should not be included in
13 our permit. However, it is Staff's -- Staff's found state
14 and federal regulations require implementations of EPA
15 promulgated TMDLs within that permit.

16 The next letter we received was from Geosyntec
17 on behalf of Orange County. Oh, it was in response to
18 another NRDC memo, where it -- NRDC had stated that the
19 report of waste discharge issued by the County of Orange
20 does not include assessment of controls implemented during
21 the previous seven to five years. And Geosyntec's letter
22 stated that it had and showed evidence of that.

23 The next comment we received was from
24 John Kemmerer of US CPA and NRDC, asking for
25 changes to the LID timeframe as to the adoption of the

1 permit. And concern when LID doesn't capture the full
2 85 percent.

3 It's not shone on your errata sheet, but at this
4 time Staff is recommending the following change to items
5 12C1 --

6 MR. AMERI: What page, can you tell us?

7 MS. BESWICK: It is on the errata sheet.

8 MR. SMYTHE: This is not on the errata sheet.

9 MR. ADACKAPARA: Page 53.

10 MR. SMYTHE: Page 53 of the permit.

11 MS. BESWICK: Page 53. Okay.

12 MR. SMYTHE: So it is 12C1 and 2. So those are the
13 changes --

14 MR. AMERI: One more time, please. Page 53. C
15 what?

16 MR. SMYTHE: C1 and 2.

17 MR. AMERI: Changing the time table?

18 MR. SMYTHE: Right. If you take a look at that last
19 sentence deleting --

20 MR. AMERI: No change to one.

21 MR. SMYTHE: Yeah, there's a change to one.

22 If you look at the screen. It is deleting the
23 phrase that "meets the feasibility criteria established
24 pursuant to section 12E." That's the portion being deleted
25 from C1, being proposed to be deleted.

1 And on C2 --

2 MR. THIBEAULT: Mark, why don't you read the sentence
3 as it will read after the change?

4 MR. SMYTHE: All right.

5 MS. MC CHESNEY: Mark, can I interrupt for a second?

6 MR. SMYTHE: Yes.

7 MS. BESWICK: Do you have spare copies, because the
8 the people in the audience do not have the errata sheet.

9 MS. BESWICK: It is not the errata sheet. It is
10 actually in the permit.

11 MS. MC CHESNEY: All right. Do you have spare
12 copies?

13 MR. ADACKAPARA: We don't have extra copies of this
14 is correction. It is not in the current errata sheet. It
15 is the only item not included in the errata sheet.

16 MS. MC CHESNEY: Do you have extra copies of the
17 errata sheet? Do you have copies of the errata sheet?

18 MR. ADACKAPARA: Yes, we do.

19 MR. SMYTHE: For the public?

20 MR. ADACKAPARA: Yeah.

21 MR. AMERI: Can you please read what the original
22 language was and how it compares.

23 MR. SMYTHE: Yes, I will.

24 The final sentence in C1 will read, or proposed
25 to read, "Priority development projects shall implement LID

1 principles described in this section, Section 12C."

2 MR. AMERI: What does that mean? I'm confused. It
3 said met the feasibility pursuant to section --

4 MR. SMYTHE: Michael?

5 Go ahead. Would you repeat that?

6 MR. AMERI: You said that the last sentence had
7 changed. "Priority development projects" -- what? I can't
8 read it on the screen.

9 MR. ADACKAPARA: Essentially, what it is saying --

10 MR. AMERI: What are we changing to what?

11 MS. BESWICK: You're taking out the "meet the
12 feasibility criteria established pursuant to Section 12E."

13 That phrase would potentially come out.

14 MR. AMERI: Okay.

15 MR. RUH: Just priority development projects shall
16 employee LID principles in this section, Section 12C.

17 MR. AMERI: Okay. I got it now.

18 MR. SMYTHE: And for number two, the second sentence
19 will read -- there will be -- okay. Maybe I should just
20 read the whole thing.

21 "The permittees shall reflect in the WQMP and
22 otherwise require that each priority development project
23 infiltrate, harvest and reuse, or evapotranspire the 85th
24 percentile storm event, capture design volume as specified
25 in section 12B4A1 above."

1 We're inserting, "Projects that do not comply
2 with this requirement shall meet the requirements
3 established in section 12E for alternative or in lieu
4 compliance. Any portion of these design capture volume, or
5 this design capture volume, that's not infiltrated, harvest
6 and reused, evapotranspired, or captured on site by LID
7 BMPs shall be treated and discharged using LID or
8 conventional treatment BMPs or mitigated as set forth in
9 12C7 below."

10 MS. BESWICK: Let's keep that at hand. Let's keep
11 that one so it's easy to pull back up.

12 MR. AMERI: I have questions on that.

13 MS. BESWICK: Absolutely.

14 MR. SMYTHE: Okay. Shall we go on to the rest?

15 MS. BESWICK: Yeah.

16 MR. SMYTHE: All right.

17 Now, that 12C1 and 12C2 were in consideration
18 of comments made by NRDC and US EPA. All right.

19 So shifting, we received comments from
20 Latham & Watkins that LID should include the word "filter."
21 And the regional board staff has included the biofilter and
22 believes that if properly designed and maintained biofilter
23 will be appropriate. It may not be as effective as
24 evapotranspiration or infiltration BMPs. And we'll
25 address this through the model WQMB approval process in

1 12 -- identified in 12E.

2 And CIWQ -- the California, or the
3 Construction Industry Coalition on Water Quality, I believe
4 it is, also said LID should include filters. And, as I
5 stated, it does include biofilter now.

6 Pronto Wash had provided previous comments and
7 additional comments requesting additional controls on mobile
8 washers. Regional board staff feel that the prohibition on
9 unauthorized non-storm water discharges as well as the
10 language in 67B that requires cities in the county to have
11 authority to prohibit mobile wash discharges sufficiently
12 address this concern.

13 Orange County Water District provided comments
14 asking that the five-foot separation, vertical separation
15 between seasonal high ground water and infiltration
16 galleries be increased back up to the ten-foot. At this
17 point, Staff is purposing the five-foot.

18 Orange County Coast Keeper and the
19 County of Orange had requested that the watershed master
20 planning process be changed from a conditional to a
21 requirement. That staff has accepted. And it is item 9 in
22 your errata sheet. And that shows the replacement language.

23 And the final comment we received was from the
24 County of Riverside. And the thrust of their comments,
25 there were some recommendations to findings which have

1 already been made. The primary portion of their comments
2 were, there were several sections they did not want
3 incorporated into their MS4 permit, which will be addressed
4 when their MS4 permit comes up.

5 One of the erratas also was to include the
6 maps, which I believe is included in here by reference --
7 yes. Item 12. And those are the maps, the city map and
8 watershed map that will be included in the permit.

9 Conclusion. Staff recommends adoption of the
10 R820090030 with the changes purposed in the errata sheet and
11 presented in this presentation.

12 Staff's prepped to answer questions.

13 MS. BESWICK: And we may have some for you.

14 Gerry, did you want --

15 MR. THIBEAULT: Just to finally, hopefully, clarify
16 that one issue in the errata sheet.

17 Are there any other changes other than the two
18 items that were not included in the errata?

19 MR. ADACKAPARA: No. We don't have any other changes
20 at this point.

21 MR. THIBEAULT: Okay. We can leave that one screen
22 up there, and everyone can see very clearly what the change
23 is, and can copy it down or -- so let's go ahead and let's
24 leave that up there. This is the only change that was not
25 included in the errata sheets.

1 MS. BESWICK: Got it.

2 Are there questions? Any board members have
3 questions of Mark before we open the public hearing?

4 No?

5 Yes, Steve.

6 MR. PON TELL: I guess the question is one on the
7 process. Should I -- if I do have questions throughout the
8 permit, just wait until after the public hearing and ask all
9 the questions at the same time? Will that be an easier
10 process?

11 MS. BESWICK: It might be because we may find that
12 some of these come up during the course of the discussion.
13 And I think we should feel free to ask people who are making
14 comments, questions -- if questions arise during their
15 presentation.

16 All right. So with that in mind, we'll open
17 the public hearing.

18 Thank you, Mark.

19 I have a great number of cards. And, also, I
20 think that there's a potential for a group, if you will,
21 presentation. So when we get to that, we'll see if we can
22 comment.

23 What I'd like to do first -- I've had a request.
24 Mayor pro tem of the city of Lake Forest, Peter Herzog.
25 And Peter needs to be somewhere else. I'm going to ask him

1 if he would like to make comment first.

2 MR. HERZOG: Thank you very much. I wasn't expecting
3 a comment that quick. Thank you very much.

4 My name is Peter Herzog. I'm the mayor pro tem
5 in the City of Lake Forest. And I'm glad to be here before
6 the members of the Board.

7 Obviously, we certainly appreciate all the
8 efforts of your staff and yourselves in working with the
9 permittees and the cities of Orange County and, quite
10 frankly, everyone who's very heavily involved in the
11 committee enforcement of the implementation aspect.

12 I submit that the proposed permit before you --
13 obviously, the discussion this morning has changed on the
14 screen, but otherwise -- that this proposed permit does add
15 a great deal of progress to what has already occurred
16 previously. So it is a step forward. It is moving forward
17 in looking at the overall perspective of the watersheds.
18 That is what we're all interested in.

19 And quite frankly, from my standpoint, I think
20 your staff and this board exceeded what is required. And
21 that's an option you have. So that you're well within the
22 bounds of the parameters.

23 And I'll be very frank, there are various
24 portions that I don't like, and we would like to see
25 deleted. You know, just be frank, that I do think, in light

1 of all the work that has been done, that today's the day.
2 It is time to move forward and start getting back to moving
3 forward with progressing with the quality of the basin.

4 Now, there are changes. You're aware of the
5 economic goings on. And cities are not immune from that.
6 And unfortunately, even in the current budget cycle, cities
7 have cut 10 to 15 percent from the actual spending. And had
8 that be -- now, in the current budget cycle. And,
9 unfortunately, it doesn't look any better. It looks worse.

10 In this 09/10 budget cycle, you're going to see
11 further decrease in budget. And, frankly, what we see over
12 the life of the permit, that probably the financial
13 recourses of the city's not going to improve that greatly.

14 We want to really focus on projects that will
15 actually go toward the health of the watershed. And that
16 requires maximum flexibility so all parties come together
17 and move forward with that goal.

18 The reasons I point that out again, is I think
19 that the need for flexibility -- I think it's important for
20 this Board to actually expand the best management practices
21 to provide the cities and the developers with as much
22 flexibility to meet the overall check list. Again, the big
23 picture is the health of the watershed. That's what we're
24 trying to achieve, and the water quality involved in that.

25 So let's create as much flexibility as possible,

1 so we can get there. Restricting it and pulling back or
2 adding additional problematic issues is not really looking
3 at the ultimate goal. And I think it is important to keep
4 that heavily in mind.

5 And that's important with regards to the soil
6 retention of water and requiring homeowners and businesses
7 to mechanically infiltrate.

8 As the staff pointed out, there are certain
9 areas where nature has made that extremely difficult. At my
10 neck of the woods, down at the south end of our district, we
11 live with that every day. Our area is not really all that
12 excited or compatible with that kind of infiltration. There
13 may be other areas that are, but our area certainly is not.

14 And that, again, goes to the flexibility aspect
15 that's extremely important so that we can continue to do the
16 work that Lake Forest and other cities down in my area have
17 done to try to improve the watershed.

18 I respectfully submit that there has been a
19 great deal of work done. Today's the time to make a
20 decision. Not tomorrow. Not next month. It is time to
21 move forward. The cities look forward to working with your
22 staff and the Board. And looking to the health of the
23 watershed.

24 And, again, I think extremely important,
25 particularly when the economy we're in and we're going to be

1 facing over the life of the permit that the maximum
2 flexibility be provided not only to the developing community,
3 but to the cities as well who are the ones -- particularly
4 in Orange County, where we essentially cover all of the
5 geography of Orange County, over 90 percent of that we're
6 ultimately responsible.

7 So I appreciate your time, appreciate your
8 efforts. And thank you for this opportunity.

9 MS. BESWICK: Thank you.

10 Richard Boon, you want to come up?

11 And, Richard, it is my understanding -- you can
12 help me with this. You might have a presentation that is
13 going to be comprehensive as to the counts.

14 MR. BOON: That's not correct. I had some written
15 remarks to present verbally only.

16 For the benefit of the room, Richard Boon with
17 the County of Orange. I'm responsible for the countywide
18 elements of the Orange County stormwater program.

19 MS. BESWICK: You're speaking on behalf of yourself
20 at this point?

21 MR. BOON: I think -- I believe -- I'm certainly
22 speaking for the county.

23 MS. BESWICK: Let me tell you why I'm confused. I
24 have a note, the permittees 20- or 30-minute time slot for
25 the presentation. And my impression was it was in part for

1 the counties and cities, that this was part of your
2 presentation.

3 MR. BOON: No, we didn't ask for that.

4 MS. BESWICK: Okay. And you asked for 15 minutes.

5 MR. BOON: I was anticipating ten minutes. I speak
6 on behalf of the County of Orange. I also represent the
7 cities in the Stormwater Project.

8 MS. BESWICK: Thank you.

9 MR. BOON: I'm not going to start on my prepared
10 remarks. I think -- I respectfully ask for an opportunity
11 for a recess to think very carefully about the language that
12 has been put up here. There's one defining paragraph in
13 this program. And it is section C2, the one before you.

14 The red line version you have there,
15 regrettably, does not reflect the change that's been made to
16 the full draft permit. There's a word that has been struck,
17 that's not shown as struck on the overhead. And I think,
18 for all the parties in the room, we need an opportunity to
19 think very, very carefully about what is being proposed
20 here, and what is not provided on the errata sheet to us.

21 MS. BESWICK: Right. What word are you telling us --
22 which word, so we're on the same --

23 MR. BOON: Yeah, the word "capture" has gone. And it
24 is not shown as a deletion. And that's a key word.

25 MS. BESWICK: In paragraph two?

1 MR. BOON: In paragraph two.

2 MR. ADACKAPARA: I think "capture" -- it is a mistake,
3 actually.

4 The version we put over there did not --
5 "capture" should not be there. That's in the paragraph of
6 the permit.

7 MR. BOON: But this is the defining paragraph that
8 the force and permit for Orange County. We need to be
9 absolutely clear on what we're all considering.

10 MS. BESWICK: So let's just renew it.

11 If you had even -- you're talking about after
12 evapotranspire; right? It should say, "Or capture," is not
13 there. And Mike's saying it should be there?

14 MR. BOON: Yes.

15 MS. BESWICK: It should say, "Or capture," still.

16 MR. THIBEAULT: So Mark Smythe, is this correct as
17 it's shown on the screen?

18 MR. SMYTHE: No. That's not what we're proposing.

19 MR. THIBEAULT: What is it you're proposing?

20 MR. SMYTHE: Right now, Michael's changing it. It
21 should still be in there.

22 MS. BESWICK: It should still say, "Or capture the
23 85th percentile."

24 Thank you for catching that. That's a big
25 difference.

1 MR. THIBEAULT: And this is now as staff proposed it?

2 MR. SMYTHE: I will look through it now, but, yes.

3 MR. BOON: I still think we would benefit from having
4 an opportunity to think very carefully about what is being
5 proposed here. This is truly the defining paragraph of the
6 permit.

7 MS. BESWICK: I think we'll give you that
8 opportunity. We'll take the subsequent speaker card. Some
9 of them that are different aspects of the permit. So I'll
10 keep your card. All right?

11 MR. BOON: Okay.

12 MS. BESWICK: All right. And then when we get to you,
13 you can give me a sign that you're ready to talk about -- or
14 come back to you as we get through the speakers. Is that
15 going to work?

16 MR. BOON: Thank you very much.

17 MS. BESWICK: Thank you.

18 Dr. Walrod, are you still with us?

19 MR. RECUPERO: Just one moment.

20 MS. BESWICK: You had mentioned you needed to leave.
21 I hope I'm not catching you as you're walking out the door.

22 MR. RECUPERO: Thank you, Madam Chair.

23 My name is Michael Recupero. I'm not
24 Dr. Walrod. He did have to leave. I don't know if you're
25 going to take a recess now.

1 MS. BESWICK: I don't intend to take a recess, unless
2 there's a reason that people can't converse with each other
3 while we are doing this.

4 MR. RECUPERO: No.

5 My name is Michael Recupero. I'm representing
6 the Orange County Business Council this morning. We appreciate
7 the opportunity of presenting this. And appreciate all the
8 work you've done with the stakeholders.

9 I think that the primary concern of the
10 Business Council relates to -- if we could get pushed to the
11 end that would be appreciated.

12 MS. BESWICK: Okay. Let me try it this way. Is
13 there anyone in the room that would like to speak to us now?
14 I'm going to invite you up and let you come back later.

15 MR. RECUPERO: Madam Chair, I think the 11th hour
16 language has changed a lot of dynamics. I think the big
17 concern -- I agree with the County of Orange, if I could
18 have a few minutes to look at it, that would be appreciated.

19 MS. BESWICK: Go right ahead.

20 John, did you want to speak?

21 MR. KEMMERER: Yeah.

22 MS. BESWICK: Great.

23 MR. KEMMERER: Good morning, Madam Chair and board
24 members. I'm John Kemmerer with the
25 Environmental Protection Agency. I was out here in November

1 at the workshop on this. Nice to see you again. And
2 introduce myself. I'm an Associate Director of the
3 Water Division in EPA Region 9. I'm part of a small group
4 working out of Southern California.

5 I'm glad to be here today. In November I
6 provided brief remarks in support of this permit. And,
7 again, today, to express EPA strong support for the work
8 Staff has done on this program.

9 To reiterate some of the things I mentioned
10 back in November. We recognize that controlling stormwater
11 is one of the more challenging aspects of the
12 Clean Water Act. As a nation, we need to improve the
13 management of stormwater and better control the impacts
14 towards that end.

15 We believe the revised permits, like the one
16 you're considering today, need to take advantage of the
17 previous permit. You're considering the fourth round here
18 today. It is important to take advantage of what we learned
19 over the last 20 years.

20 There was mention of the audits your staff has
21 done here in Orange County. In addition, EPA Region 9 has
22 done 59 audits in our region. And we've concluded -- one of
23 our main conclusion from the audits is these permits need to
24 include more quantifiable requirements to ensure that we're
25 following these respected from stormwater discharges.

1 Really, across the country, the permits often
2 have fairly vague, frankly, requirements in them, and we
3 really think that the work your staff has done here really
4 has addressed the historic problems with stormwater permits
5 and are including more focused and measurable requirements
6 so everybody knows what is required and we can ensure that
7 the water quality is protected.

8 When I spoke in November, I highlighted two
9 specific aspect of the permit. And those were the LID
10 provisions and the incorporation of maximum daily loads.
11 And I would like to get into that today.

12 Back in November I expressed support for what
13 was then in the permit, which was the 5 percent effective
14 impervious area requirement for LID. The version you have
15 before you today has been revised.

16 And I want to make sure you realize we are
17 fully supportive of the revision that's been done here in
18 the design capture volume approach for the measurable
19 implementation of LID. We think that your staff and
20 stakeholders here really made some admirable efforts to get
21 together and come up with this approach. And we think its a
22 very good one and meets our objectives to have measurable
23 LID requirements in permits.

24 We also made some suggestions back in February
25 about the in lieu programs. Everybody recognizes that

1 implementation of LID is not going to be something that's
2 practical in every single project. But if a development
3 cannot implement LID, there still needs to be some efforts
4 taken to protect water quality.

5 We believe what you've come up with and what
6 staff came up with as an alternative approach is really
7 important and very meaningful and realistic approach for
8 addressing those situations where that's impracticable.

9 I do want to say, since this is staring me in
10 the face, this language up here, that this is really
11 critical to our support of the LID provisions of the permit.

12 Frankly, we were supportive of the March 25th
13 version of the permit. And felt it had LID provisions. We
14 saw that there were ways of improving it. And I think the
15 best intensions were made in trying to improve the last
16 version of the permit. But when the April 10th version came
17 out, there were these two sections in particular that became
18 very problematic for us.

19 And we feel like these changes up there -- and
20 I apologize for missing the word "capture," that was totally
21 my fault. I believe these changes need to be made.

22 I'll mention -- this probably has taken a
23 little bit more time than I claim --

24 MS. BESWICK: That's all right. This is very
25 important. I think this is the most -- discussion we're having.

1 MS. MC CHESNEY: Maybe -- because the people out
2 there want to hear.

3 MS. BESWICK: I was thinking the same thing.

4 MS. MC CHESNEY: They may want to come in and you can
5 explain your --

6 MS. BESWICK: Why don't you do that. Let's just take
7 a breath.

8 MR. THIBEAULT: Larry's going out there.

9 MS. BESWICK: And asking them to come back in. I
10 think this is awful important to them.

11 You may want to back up and start over about the
12 part where it was you that didn't get the word in there.

13 We've asked everyone to come back into the room
14 because I think there's some enlightenment to be offered
15 here. Mr. Kemmerer's comment from the EPA. So I'm going to
16 ask him to revisit what he was just telling us.

17 MR. KEMMERER: I was -- as I was mentioning; I'm
18 really impressed with what's been done on the permit with
19 the LID. EPA's fully supportive of this 85 percentile
20 capture volume rather than the 5 percent EIA. We believe --

21 MS. MC CHESNEY: Can you speak into the mic?

22 MR. KEMMERER: But we do -- and actually, the way the
23 LID provisions were incorporated into the March 25th version
24 of the permit was acceptable to us. But we had major
25 concerns with how -- the last minute changes that were made

1 in the April 10th version which led us to suggest the
2 changes here.

3 And I take full responsibility for missing the
4 word "capture" in item number 2. I'm sorry about that.

5 But let me tell you what our rationale is for
6 this. In Section Number 1 of this -- on the screen here,
7 basically, what was added to the permit for the April 10th
8 version was some language that basically said if -- those
9 projects that meet the feasibility criteria in that
10 alternative section would need to comply with the LID
11 provision of this program.

12 Like I mentioned earlier, that we really are
13 supportive of that alternative section. I believe that's a
14 critical part of the permit. We don't believe -- we believe
15 that this language that was inserted on the April 10th
16 version puts the cart before the horse in how the
17 feasibility analysis is done.

18 Right now, with that language in the April 10th
19 version, the LID -- the numeric LID provision, which we
20 applaud in the permit, would not apply until the feasibility
21 criteria were approved by the EO. And although all of us
22 here today, I'm sure, hope that the feasibility criteria can
23 be developed in a timely manner and approved, we see the
24 down side of this being that there's a possibility that if
25 the development of these feasibility criteria drag out and

1 aren't prepared in a timely manner, or are not approved in a
2 timely manner, the numeric requirements, the numeric LID
3 requirements of this program will not apply.

4 So our view, if you delete that line there
5 that's on the screen, all of the provisions in section 12E
6 still apply. You still have that alternative available and,
7 ideally, again, it will be done in a timely manner and we
8 will move forward.

9 We've seen, in these permits, things don't
10 always go the way you like and take longer than you expect.
11 And we don't feel it's worth the risk of including that
12 language in there and having the possibility that the
13 feasibility criteria could be a disputed item and drag out
14 over time. And then those revisions in Section 2 would not
15 apply.

16 MS. BESWICK: The concern is primarily the timeframe
17 for the feasibility criteria. That is going to be developed
18 by the executive officer.

19 MR. KEMMERER: It's going to be developed by the
20 permittees and approved by the executive officer.

21 MS. BESWICK: Do you want to comment on it?

22 MR. THIBEAULT: If I could. It is relevant to the
23 context here.

24 The permittees are required to provide this
25 feasibility study within 12 months. Failure to do that --

1 and I know things drag on, although we never had it happen
2 here, things can. If they don't submit that within the
3 12 months, they are in violation of the permit and subject
4 to enforcement, including monetary penalty.

5 It is not like if people don't feel like
6 getting it within 12 months it is okay. It is an
7 enforceable permit requirement.

8 And also, with all due respect, the
9 alternative, without these language changes, still required
10 LID principles to be considered for all development
11 elsewhere in the permit. It is not like there was a free
12 ride. Although EPA -- and I suspect others -- wanted it
13 specifically identified with this language change. Even
14 without this language change, there's still a requirement
15 for new development to be -- to have LID principles
16 considered, even without the feasible study.

17 MR. KEMMERER: I guess I have two quick responses to
18 that.

19 I agree with you, Gerry, that the feasibility
20 study needs to be submitted. It would be a violation of the
21 permit if they don't submit it within 12 months. It is not
22 in place until it is approved. You could get an inadequate
23 set of criteria for the feasibility determinations and want
24 to make sure it is scientifically sound and that you are
25 comfortable with those criteria.

1 And I could see you providing some comments on
2 the feasibility study criteria. I could see this going back
3 and forth for a while. It doesn't seem to me, or us at EPA,
4 that there's any reason to include this in here because you
5 are going to have these requirements in the permit. And,
6 again, you're unnecessarily leaving a door open if there's a
7 delay if you go back and forth on that.

8 On the second point, I agree there's other LID
9 provisions in here. Our support of this permit is really
10 predicated on having the numeric and measurable
11 requirements. As I mentioned up front, we supported the 5
12 percent EIA approach. We support the approach that all the
13 stakeholders on this 85th percentile, controlling the
14 85 percentile.

15 It is my understanding -- you can correct me if
16 I'm wrong -- that that 85th percentile requirement will not
17 kick in until you approved the feasibility criteria under
18 the permit. That's why we feel that language in Section 1
19 should be removed.

20 So why don't I go on and explain the second
21 one. The second one, actually, I thought was really a great
22 example to me. I've kind of -- good intentions sometimes
23 don't work out the way you like.

24 I think the intent here was to clarify the
25 language. I think this was actually overall by moving --

1 this language was further down in section 12C before. It
2 was moved up and made prominent. And I think it was a good
3 idea. The problem is with the language that's in there now.
4 It leaves -- basically, equates the use of LID tools and the
5 alternative section, 12E requirements, and the use of
6 conventional BMPs, conventional treatment control BMPs.

7 You could read the language before that change
8 was made and say you meet the requirements of this LID
9 section of the permit by using treatment control BMPs only.
10 And I know that's not the intent of the permit. And I know
11 -- in one of the stakeholder meetings, it is my belief it is
12 not the intent of anyone here.

13 I think the language as is is, frankly, a
14 little messy. And it needs to be clarified to make it clear
15 that you need -- that the permit requires compliance with
16 either the controlling the design capture volume or
17 complying with that alternative section, 12E. If you don't
18 do those two things, you're not complying with the permit.

19 The way the permit was worded in April, the
20 implication was there that you could also comply with the
21 permit by using conventional treatment BMPs.

22 That's the logic for the input on these two
23 sections of the permit. And it is -- my belief is, and I
24 was trying to talk, working with Mike on this -- I believe
25 this language change makes it clear, you know, if you're

1 going to comply with the permit, these are the two ways of
2 doing it, using controlling the design storm volume or
3 meeting the alternatives in section 12E.

4 So I'm sure there's other ways of dealing with
5 this and other languages to be made. This is what I came
6 up with as I thought was the cleanest way of not having to
7 change a bunch of different sections in the permit.

8 So why don't I finish -- so, again, on the
9 LID, I think you have an opportunity to improve a rarely
10 effective permit here on requiring LID. And I think it is
11 going to result in some major improvements in water quality
12 in this area.

13 The other aspect of the permit that was
14 mentioned in the opening remarks here that we commented on
15 was the TMDL section of the permit. We provided a lot of
16 comments on that. And we -- we're very encouraged by the
17 way the comments were addressed by the permit. We made
18 suggestions that the permit language -- make it clear how
19 the waste load allocation's assigned to the admissible
20 stormwater was addressed by the permit.

21 And going back to my first point about the need
22 for clear measurable requirements, we believe TMDLs are a
23 perfect example of how we really need clear requirements in
24 these permits. We've been implementing stormwater permits
25 across the region. And lots of permits that have vague

1 language about incorporation of TMDLs that are not working.

2 And this language that your staff put into the
3 permit is very clear. It makes -- gives everyone the
4 understanding what needs to be gone to meet the TMDL waste
5 load allocation.

6 And in our view this will enable the Board to
7 ensure that the pollutant discharges from municipal
8 stormwater to impaired waters in this region are being
9 appropriately controlled with the ultimate objective of
10 obtaining the water quality standards.

11 We don't agree with some of the comments made
12 about -- the legal comment about not being able to
13 incorporate a technical TMDL. That's not at all our legal
14 view. We disagree with some of the comments that have been
15 made about relying on more of an iterative BMP approach. We
16 feel like that's the way things have been done in the past
17 and have not worked.

18 I really encourage you to adopt the permit.

19 I want to end by just saying, your staff has
20 done just incredible work bringing this to you today. We've
21 seen across the region how long it takes. The time frames
22 they worked under are just incredible.

23 I want to commend Mike Adackapara on his
24 patience and tireless efforts.

25 And I'm glad to answer any other questions.

1 MS. BESWICK: If there are no questions, I think
2 it will be appropriate after this input for us to take a
3 break.

4 So we're going to break until 10:45.

5 (Pause in the proceedings)

6 MS. BESWICK: Now, you know what I'd really like to do
7 is I'd like to go back and ask if either of the earlier
8 speakers that came up and wanted time out, is at this point
9 interested in coming back up or proceed with other speakers.

10 Richard, what would you like to do?

11 MR. BOON: I think if -- I just need five more
12 minutes. So to proceed with other speakers:

13 MS. BESWICK: That works for me.

14 I asked earlier if there were other speakers
15 who wanted to be taken at this time. I'm willing to do that
16 now.

17 Anyone else want to -- do you need another
18 minute, too?

19 And while he's coming forward, did you want to
20 make any comments?

21 MR. THIBEAULT: Is John still here?

22 MS. BESWICK: Is John Kemmerer still here? He's
23 sitting in the corner.

24 MR. THIBEAULT: Excuse me, Jason, before you get
25 started. It seems to me that -- and I should point out that

1 this is why we don't like to argue these things in front of
2 the Board. This is why we look to do it in stakeholder
3 sessions. Because they are complicated things that are just
4 not best done in this kind of setting.

5 But in this case, it seems like a huge gulf
6 between two opposing sides here. When really what it is is
7 a 12-month plus approval process for LID consideration.

8 And it is not as though the LID process would
9 not come in to play if John's language is not adopted. It
10 is that it would be implemented 12 months, plus whatever
11 time it takes for approval after adoption of the permit.

12 Now, in that interim time, the conventional
13 process is still proceed. There are susump language in the
14 permit that requires the 85th percentile treatment through
15 structural BMPs, in the interim, anyway, it is not like the
16 existing process has stopped. The difference is LID would
17 be considered for new projects, but it would not be a
18 required captured volume.

19 The same capture volume would still be required
20 under structural BMPs. 12 months, plus approval. That's
21 the difference in the language.

22 Now, also with the language that's proposed
23 here, in all fairness, this requires LID principles to be
24 kicked off now. But it doesn't mean that anybody goes into
25 non-compliance this afternoon if this permit's adopted. The

1 process requires that LID principles be considered for new
2 developments, be considered in the new process.

3 So it is a 12-month, plus approval time,
4 difference in approach.

5 A lot of energy is going into this difference
6 here this morning. It is really not that big of a
7 difference.

8 MS. BESWICK: Okay. Jason, good morning.

9 MR. UHLEY: Thank you very much.

10 My name is Jason Uhley. I'm with the Riverside
11 County Flood Control and Water Conservation District. I'm
12 providing my comments today on behalf of the
13 Riverside County MS4 program.

14 We would like to start by thanking the staff
15 and the Board for continuing to work directly with the
16 permittees, the Orange County permittees and the
17 stakeholders to develop a permit that's objective and really
18 considers the issues that all the different stakeholders and
19 committees raised.

20 I think the statement I'm about to make is
21 preaching to the choir. But this was an issue that was
22 important to the city manager, management steering
23 committee. They asked me to come here today and ask that,
24 similar to the process that Orange County went through,
25 that our permit be based on our 2002 permit. That to be

1 specific to our water quality issues. That we would be
2 afforded the same opportunity for input and comment on our
3 permit that Orange County has been provided.

4 The main concern is it's very typical for the
5 permits to be written in stone and cut and paste to
6 different areas. We want to ask that the Board consider
7 that and work with us off the 2002 permit.

8 Thank you.

9 MS. BESWICK: Thank you. All right.

10 MR. BOON: Okay. We'll hit the reset button.

11 MS. BESWICK: Okay. Great. I hear the printer at
12 work, if that helps any.

13 MR. BOON: Good morning. My name is Richard Boon.
14 I'm with the County of Orange. And I manage the county-wide
15 elements of the stormwater program.

16 As an initial matter, I want to emphasize our
17 overall support for the adoption of this permit. We do have
18 two areas of concern that I will get to.

19 My comments today will focus on the permit
20 re-issuance process today. Highlight the technical changes
21 presented by this transformative fourth term provision.
22 Bring to your attention, as I said, was one, but now two
23 areas of concern. And include with the statement with what
24 the permittees think is the next and final step in the permit
25 process.

1 For the permittees, this process, as Mark
2 already laid down in his presentation, started in early 2006
3 with preparation of our report of waste discharge, more
4 commonly known as the ROWD. This document presented a
5 comprehensive assessment of the Orange County Stormwater
6 Program which was compiled using a multiple lines of
7 evidence approach.

8 We included your own audit findings,
9 facilitated permittee workshops, the cost work effectiveness
10 assessment guidance, and a comprehensive analysis of all
11 available environmental quality and program performance
12 data.

13 Now, ROWD identified many positive program
14 outcomes, proposed a few changes, and included commitments
15 to further develop the programing key areas, including a
16 number of significant source control initiatives and
17 development and commitment to a watershed based approach to
18 water quality planning to complement the countywide program.

19 The ROWD and its recommendations were the
20 subject of public workshops as well as stakeholder
21 consultation meetings through the second half of 2006 and
22 early part 2007. The staff acknowledges their receipt of
23 this document. And it is clearly informed on the
24 development of the tentative order.

25 In November 2008, we received the first draft

1 of the order before us. In response to this document, we
2 readily acknowledged that your staff accepted, and indeed,
3 incorporate many of your specific recommendations. However,
4 the response also pointed out the permit additionally
5 presented many new requirements.

6 I think were intended to ensure greater
7 permittee accountability, extend local regulatory oversight
8 of our community, established a new performance standard for
9 land development, and also incorporate additional total
10 maximum daily loads.

11 So the significant technical challenges. While
12 the opportunity to engage with staff and discuss the draft
13 order has resolved many of our concerns, and we appreciate
14 the many stakeholder meetings. I think there were five or
15 six of those as well as stakeholder sub working group
16 meetings, there were another five or six of those.

17 There will certainly be significant challenges
18 ahead for the permittees in developing and implementing
19 programs to fulfill the requirements of the transformative
20 fourth term permit.

21 At a time of unprecedented fiscal constraint,
22 a number of these changes need to be explicitly recognized.
23 The order before you significantly increases the
24 administrative burden of the Orange County Stormwater
25 Program by establishing additional reporting requirements

1 and extending our local regulatory reached.

2 The universe of commercial facilities, as Mark
3 has noted, subject to inspection, is broadened by a
4 significant number of new categories.

5 Mobile businesses are specifically targeted.
6 And development and redevelopment become subject of
7 verification of site practices for water quality protection
8 over the lifetime of each project.

9 For example, we currently inspect an inventory
10 of over 30,000 commercial and industrial facilities. For
11 three of our largest cities alone, a broadened universe of
12 commercial sites would entail an additional 1100 site
13 inspections each year.

14 We welcome the inclusion in the draft order for
15 alternative verification mechanisms, that Mark pointed out,
16 to continue to work with the staff to examine how we may
17 better prioritize or target our scarce inspection resources
18 and also to refine the reporting processes. Nonetheless,
19 these new provisions will require the allocations of
20 additional resources to maintain compliance.

21 The land development provision certainly
22 represents the greatest area of challenge to the permittees.
23 The 85th percentile storm event in Orange County deposits
24 17.3 million gallons of rain water on every square mile of
25 landscape. Historically, we sought to convey most of the

1 rain water directly to the ocean.

2 The order seeks to have us fundamentally
3 rethink the urban storm management. Such that in 12 months
4 we will have to deliver to you a model planning approval
5 process for implementation across North Orange County that's
6 intended to deliver landscapes capable of substantially
7 absorbing this volume of rain water in every square mile in
8 every storm event. It is, indeed, a transformative fourth
9 term permit.

10 Certainly, we see on embracing the regulatory
11 momentum behind low impact development approaches for
12 stormwater management. We also recognize that the
13 overarching water act goal and the need for more sustainable
14 patterns of urban development require us to address the
15 hydrologic as well as water chemistry impacts of stormwater
16 runoff.

17 However, at the same time we see concerns being
18 communicated about ground water protection from the
19 Orange County Water District and redevelopment challenges.
20 Also, we need to look very carefully at this desire to see
21 the infiltration of large volumes of surface waters at rates
22 far in excess of a natural landscape. Where up to 95
23 percent of rain volume would be expected to be lost back to
24 the atmosphere through evapotranspiration. And also
25 infiltration in the landscape underlined in much of the

1 Central Orange County area by shallow perched aquifers and
2 areas of subsurface contamination.

3 We also have concerns about the long term
4 viability of a disaggregated lot-by-lot approach for
5 stormwater management.

6 While we believe that the land development
7 section of the permit poses very significant challenges for
8 the permittees, we believe the draft order sets an
9 appropriate approach for beginning the shift from
10 treat-and-release to low impact development approaches and
11 for introducing new requirements for hydromodification.

12 It also appropriately obligates the permittees
13 to development the detail of this program. It will be a
14 hugely challenging undertaking, and the permittees may very
15 well be back before you within the period of development
16 this program element to report progress in this direction.

17 So that takes me to the two areas of concern.
18 On the TMDL issue, we entirely agree that available waste
19 load allocations should be implemented through an iterative
20 BMP process. We do, however, need to indicate for the
21 record a disagreement with the inclusion of technical TMDLs.

22 Only TMDLs with implementation plans adopted
23 into the Santa Ana Basin Plan are enforceable and thus
24 appropriately implemented through an MDS permit.

25 So the issue that has arisen this morning, I

1 think we have a lot of concern about the due process aspect
2 of seeing language presented to us that was not part of the
3 errata sheet in the first cut. And this is no reflection on
4 the staff. We're all human. It wasn't actually correctly
5 written.

6 With regard to the first change that's being
7 suggested by US CPA, I think if there's a concern that these
8 criteria ultimately are not forthcoming and there are
9 projects that continue to be approved under the existing
10 regime in the interim. I think we can better get to the
11 concern by establishing a date, 18 months from now, whereby
12 these default conditions would kick in, if we haven't gone to
13 an approval of the model program. Rather than saying they
14 apply immediately in the interim.

15 That said, I think the preference would be for
16 that language to be struck in the first paragraph. But we
17 offer an alternative for that particular instance.

18 And then with regard to the change in C2.
19 There's some key words in there that have tremendous
20 significance to everyone in the room. And with your
21 permission, I would like to ask County's environmental legal
22 counsel to make some clarifying remarks on that.

23 UNIDENTIFIED SPEAKER: Good morning, Ms. Beswick,
24 members of the Board.

25 So this shows you you shouldn't come with

1 prepared remarks because everything is on the fly here.

2 So following up on Richard's comment on C2, and
3 just generally these changes in section C. You know, I'm
4 sure for members of the Board and, you know, for most of the
5 general public, these -- what appear to be minor changes
6 actually, potentially, have a fairly significant impact on
7 everybody, all the stakeholders, everybody interested in
8 this stuff.

9 It is very difficult, on the fly, to know
10 exactly what those implications mean. And so that's why
11 everyone's struggling with how to respond to the changes
12 when it is not quite understood what the intent of the
13 changes were -- and notwithstanding the EPA's attempt for
14 clarification -- what the effect is going to be.

15 I think -- I believe it is our understanding
16 that EPA's proposed change to C2 would essentially require
17 that LID principles, consistent with EPA's definition of
18 LID, be required for this 85th percentile storm event, the
19 design capture volume.

20 Again, it's EPA's proposed change. It is our
21 understanding this provision, C2, would be interpreted
22 consistent with EPA's definition of the principles of LID.

23 And that's the clarification and the comment
24 that we wanted to make at this point.

25 Richard, did you want to continue or -- and

1 I'll just add one other point. On the striking the language
2 in the first C1. You know, it does appear to be really a
3 timing issue, as the executive officer was indicating.

4 I think it is a practical matter. I'm not sure
5 if the feasibility criteria are meant to determine when the
6 LID principles are feasible, it seem -- it is hard to
7 understand how projects are going to start implementing LID
8 principles before the feasibility analysis is done.

9 We understand the concern. We don't want that
10 process to drag on too long. It seems to me, makes more
11 sense to figure out a way -- if EPA's concern is that
12 process, that back and forth process is going to take too
13 long. Let's figure out a way to cap that rather than taking
14 away the feasibility criteria.

15 How do projects know whether the LID principles
16 are feasible or not if you don't have a feasibility
17 criteria?

18 I think, again, as a practical matter, striking
19 that language from C1 is not the way to do it. It would be
20 better to -- again, as the executive officer was
21 suggesting -- figure out a way how to make sure that
22 process doesn't drag on forever.

23 And, again, these are fairly significant
24 changes. You know, let's not get caught up in the fact that
25 rather than them implementing in 12 months, they might be

1 16 months or 18 months or 6 months, you know. Let's work on
2 the time rather than striking the criteria all together.

3 And I do have additional comments, but I
4 believe -- well, following also on Richard's comment on the
5 TMDL issue. It is -- there's a lot of tension, as you might
6 be aware, between MS4 permits and TMDLs. And the tension
7 arises from the standard that it is applicable to the MS4
8 permits. You're all familiar at this point with the maximum
9 extent practical standards. That's the standard applicable
10 to MS4 permits.

11 There's -- it is not a clear nexus between MS4
12 permits and TMDL implementation. But what is clear, under
13 state law, under California, before TMDLs were enforceable,
14 it must be incorporated into the appropriate basin plan.
15 So in this case the Santa Ana Basin Plan.

16 You have to amended the basin plan in
17 accordance with the state law. That includes getting state
18 board approval, OAL approval, and ultimately EPA approval.
19 If the TMDLs -- again, according to state law -- are not
20 incorporated into the base plan, they have no legal
21 standing, they are not enforceable by the regional board.

22 The tentative order in section 18 -- I think it
23 is 18B. Yes. 18B has a whole section on the technical
24 TMDLs.

25 Technical TMDLs are TMDLs that don't have an

1 implementation plan. Under state law, TMDLs are not
2 enforceable until it has an implementation plan. And these
3 technical TMDLs don't have an implementation plan, they're
4 not enforceable.

5 It is not appropriate to try to implement them
6 through an MS4 permit. They're not enforceable. Until
7 they're enforceable, they shouldn't be implemented through a
8 MS4 plan.

9 And, finally, I want to touch on the
10 Coyote Creek TMDL. That's rather unique. The
11 Los Angeles Regional Board came up with a waste load
12 allocation for Coyote Creek.

13 There's a portion of Coyote Creek that's
14 impaired. The portion of Coyote Creek that runs through
15 Region 8 is not listed as impaired. TMDLs are applicable to
16 water quality segments, water segments.

17 So the segment of Coyote Creek that runs
18 through the Santa Ana Region has not been listed as
19 impaired. So it is fine for the Los Angeles Regional Board
20 to say, "Sources upstream are contributing to the downstream
21 segment."

22 That's fine. That's happened in other places.
23 San Francisco Regional Bay area is dealing with similar
24 issues.

25 What would be appropriate for them to do is

1 come up with a waste load allocation that they think would
2 help with their segment for the Santa Ana segment.

3 But then the next step that has to happen,
4 rather than adopting that into an MS4 permit, the
5 Santa Ana Board has to go through the process of listing
6 their segment as impaired and developing their own TMDL for
7 that segment.

8 That's the final step that has to happen. You
9 can't short circuit it by relying on the waste load
10 allocation developed from a sister region. This region has
11 to do it itself. Implement it into its basin plan. And
12 ideally, that's going to be consistent with the
13 Los Angeles Board's basing plan. And everyone's happy.

14 You can't short circuit the process. You need
15 to go through the process of listing the Coyote Creek
16 segment in Santa Ana Region as impaired, develop TMDLs, and
17 waste load allocations, and implementing those through your
18 own basin plan.

19 I think that basically touches on the issues
20 that have arisen so far. But maybe we'll have additional
21 issues coming up throughout the day. I ask for time for
22 clarification later on, unless there are any questions.

23 MR. THIBEAULT: May we respond?

24 MS. BESWICK: If you want to make a comment, you may.

25 MR. THIBEAULT: There are a couple of things.

1 One, with respect to paragraph C1 and C2, and,
2 you know, and the difference that we've talked about,
3 18 months or whatever.

4 The fact that there are no feasibility criteria
5 yet and take time period to develop them, doesn't mean that
6 LID approach still can't be taken. What it means is that
7 for individual projects there would have to be engineering
8 evaluation and analysis.

9 And then if it turns out, as a result of that
10 analysis, that the engineering professional feels that LID
11 principles are inappropriate, then there's a section in the
12 permit that we've all read, Section 7: "If site conditions
13 do not permit infiltration, harvesting and reuse, and/or
14 evapotranspiration of the design capture volume at the
15 project's site as close to the source as possible, the
16 alternative discussed below should be considered and credits
17 in lieu programs may be implemented," so -- "may be
18 considered." And then it goes on to Section 9.

19 So there's an off-ramp. If LID is feasible, as
20 a result of the individual project evaluation, then you
21 implement it. If it is not feasible, then the permit
22 provides the alternative that can be taken to address the
23 fact that certain areas are -- certain projects might be
24 infeasible for implementation for LID principles.

25 MS. BESWICK: Thank you.

1 Any other questions or comments for the
2 speaker?

3 If not, I'd like to move along, if we could.

4 Richard, you have more?

5 MR. BOON: No, I'm finished.

6 MS. BESWICK: Thank you.

7 I'm going to ask Paul Singarela to come forward
8 now. And Paul will be followed by Mark Grey.

9 If people want to, again, get ready to speak.

10 And followed by Eric Strecker.

11 MR. SINGARELA: Good morning, Madam Chair, members of
12 the Board, Executive Officer Thibeault.

13 Paul Singarela here this morning on behalf of
14 the Construction Industry, Coalition for Water Quality.

15 I want to say I was a participant in the
16 process that the executive officer described, went on for
17 about four months, a number of those meetings. It was very
18 good faith, earnest process. Everybody really participated
19 productively. And we all learned a lot about the terms.

20 What LID means. What EIA may or may not mean.

21 And here we are today. I think the process has
22 run its course, and there was fruits of it.

23 We're adjusting to a permit that's in flux.

24 And that's always very difficult.

25 I came here to talk about one permit. And I'm

1 going to have to address a different kind of permit here
2 this morning. So bear with me. I'm going to have to make
3 two presentations. I'm going to go as quickly as I can
4 through this.

5 I think on this page, here, it is a very
6 important page with C1 and C2. I understand that US CPA's
7 overarching concern is simply to make sure that conventional
8 BMPs, you know, putting in trash interceptors in an existing
9 catch basin or something like that, are not elevated to the
10 same level as the low impact PMBs, what we've all been
11 calling LID BMPs.

12 We understand that. We have no intent of
13 trying to use a trash interceptor struck into an existing
14 catch basin as a way to comply with these new LID
15 requirements. We agree with EPA on that.

16 I also understand that EPA would not stand in
17 the way if this Board wanted to recognize the broader
18 conception of LID that we're asking you to take under
19 serious consideration. And that broader conception LID
20 simply introduces, in addition to the onsite, keep it
21 onsite, retention BMPs, simply introduces what we call
22 "biotreatment." Which, in essence, many of you are familiar
23 with the IRWD.

24 Biotreatment is natural treatment. Running
25 stormwater through some vegetative system that allows some

1 runoff to flow offsite.

2 Our understanding is EPA is fine if this agency
3 and this staff get behind biotreatment and elevate it to the
4 bask of LID BMPs that are available. I think there's a
5 question over whether you're doing that. It is a
6 significant question.

7 One way to get at that issue would be in C2,
8 the first sentence, in addition or in replacement of
9 "capture" to substitute the word "biotreatment."

10 And understand why we're focusing on the first
11 sentence of C2 that's perhaps the -- or one of the few
12 penultimate sentences in this permit. And we very much need
13 to know what it means. And right now the BMP options, you
14 can read them, are infiltrate, that's keep it onsite;
15 harvest and reuse, that's keep it onsite -- that's rain
16 barrels and cisterns; evapotranspire, that's keep it onsite
17 and make it disappear -- I'm not quite sure how that
18 happens -- or capture.

19 Capture, kind of ironically, seems to be the
20 only vehicle through which a new development is going to be
21 allowed to have runoff. But it is an ambiguous term that
22 calls for some articulation.

23 You can think of capture of perhaps, you know,
24 trout fishing, catch-and-release trout fishing. You catch
25 the fish. You lovingly release it back into the stream

1 after proper treatment. That's our view of what "capture"
2 means. Catch and release. You catch it onsite and then you
3 treat it with biotreatment and then you actually can still
4 have some runoff leaving your site.

5 We don't think that EPA objects to that. We
6 think some work can be done on that first sentence. Perhaps
7 just a word change or perhaps some delineation on the part
8 of the Board to make it clear.

9 Going to the first paragraph, I think what the
10 County meant to say is that it is in favor of seeing that
11 language restored. They were speaking of the stricken
12 language. I know that my client very much would like to see
13 the language restored. I didn't see -- I didn't hear US EPA
14 making a substantive objection to this language.

15 This language is huge for us. We're talking
16 about feasibility criteria. And how do you judge all the
17 BMPs in this new world of LID BMPs. If it is a timing
18 issue, there are many ways to address a timing issue. But
19 just eviscerating the issue doesn't seem to be the logical
20 outcome of Mr. Kemmerer's comment on that provision.

21 And then thirdly, this new sentence in
22 paragraph two, C2 -- by the way, you should know that this
23 paragraph, without all these changes, pretty much came from
24 NRDC and their recent comments. There were a few changes.

25 For example, the word "capture" was not NRDC's

1 word. That word was recommended by the County. But we're
2 talking about, basically, an NRDC paragraph here. And now
3 we've got the new NRDC sentence added to it.

4 And going back to EPA's concern, EPA's concern
5 is to make sure you're not elevating, you know, the catch
6 basin trash interceptor to a LID BMP. I don't think you
7 need to do this, this new sentence, to accomplish that.

8 By the way, what this does accomplish, I
9 think -- and we're, you know, interpreting on the fly -- it
10 means that Gery Thibeault is going to be a very busy man.
11 Because when you get referred to 12E, that's a waiver upon
12 a vigorous showing -- that's a permit term, vigorous. I've
13 never seen that word in a permit -- a vigorous showing of
14 technical feasibility, you can get a waiver from
15 Mr. Thibeault.

16 Well, Gery's a busy guy. I'm not putting a lot
17 of stock in the waiver provision. If you went to 12E, you
18 may forget about it, especially given how long it takes to
19 process things like that. So for a real project in the real
20 world, 12E is not where you want to be.

21 I asked the staff and Board to consider, can we
22 actually accomplish what Mr. Kemmerer wants without that
23 sentence?

24 And I think what he may be trying to do is
25 avoiding several off-ramps to having to do it onsite, having

1 to do LID onsite.

2 Those off-ramps are in paragraph 8 of what is
3 in front of you. 8A, 8B, and 8C -- those are off-ramps.
4 They're not meant to be off-ramps for LID. I think EPA is
5 interpreting them to be off-ramps for LID. And they're not
6 meant to be.

7 I think there's a word in there, perhaps
8 distasteful to Mr. Kemmerer. It's the word "treat." I
9 think he looked at 8A, 8B, and 8C and said, "Oh, boy,
10 'treat.' Well, that's the catch basin insert. We don't
11 want that. EPA doesn't want that. We don't want that." So
12 perhaps some work on those paragraphs -- 8A, 8B, and 8C.

13 By the way, with your errata, are 7A, 7B, 7C,
14 and 7D. Whatever you're looking at, you need to work with
15 some shifting paragraph numbers there.

16 But, perhaps, just change the word "treat" to
17 "biotreat." And make it clear it is not the conventional
18 BMP that Mr. Kemmerer was concerned about. And maybe we can
19 save the off-ramps.

20 What are the off-ramps from? From having to do
21 the LID stuff onsite all the time. Just ain't going to
22 happen. There are going to be plenty of circumstances where
23 we need to move a little bit offsite. We need to move
24 subregional.

25 What does this Board care if the LID is

1 accomplished within the four corners of an acre or even ten
2 acres if a developer can avail itself of something nearby
3 to accomplish the same water quality benefit.

4 I'm responding to this now. I see three major
5 issues there. Perhaps they can be worked out today. It is
6 a little bit difficult to do this on the fly. We want to be
7 constructive, as we've been all along. And we wanted to
8 present some ideas to you that will clearly require some
9 further discussion as this day proceeds. The day becomes
10 much more complicated by this.

11 What I really wanted to talk about --

12 MS. BESWICK: This better be good.

13 MR. SINGARELA: What we'd like to do today is
14 persuade you that there's a major fork in the road here. You
15 know, the Robert Frost, The Path Less Travelled. There's a
16 fork in the road here.

17 And that fork has to do with LID stuff. Are
18 you -- and this is a matter of policy. Are you going to
19 embrace a broader conception of the LID? Or are you going
20 to embrace and adopt and require this narrow conception of
21 LID that's not consistent with the EPA definition?

22 The narrow conception of LID is being promoted
23 by NRDC. They want it onsite. They say, "Hey, if you keep
24 it all onsite, there's no pollution. There's not a single
25 molecule that gets off site."

1 That has a simplistic appeal to it. It just
2 doesn't hold up to scrutiny. And, by the way, it is
3 inconsistent with EPA's definition of LID. It's
4 inconsistent with the State Water Board's definition of LID.

5 Those definitions of LID allow filtration.
6 Filtration is understood to be, what we call, biotreatment.
7 The State Board's definition of LID allows for detention.
8 What NRDC is talking about is retain it, retain it, retain
9 it onsite all the time. 100 percent detention.

10 The State Water Board's word is understood to
11 mean slow it down, treat it perhaps with biological process
12 and actually allow the runoff to continue off of the site.

13 This is a huge choice here. Let me just try to
14 illustrate it for you. The 85th percentile storm. This is
15 one of the products of the negotiation. We're happy that we
16 agree what the design capture volume should be. It is a big
17 deal.

18 Under the existing scenario that Mr. Smythe
19 showed to you -- under the existing scenario, an undeveloped
20 piece of land, that entire 85th percentile volume comes off
21 the property. We're not in BMPs. We're just undeveloped
22 land. That entire volume goes off the site.

23 Think about how dramatic NRDC's proposal is.
24 Under NRDC's proposal, all of that water is going to stay on
25 that property. And then think about our proposal.

1 Our proposal is much closer, actually, to their
2 proposal than it is to the undeveloped state. In our
3 proposal we say, "Yes, we'll try to keep it onsite." That
4 makes sense. We don't have anything against infiltration
5 BMPs where they make sense. We don't have any objection to
6 harvesting, this new concept of harvesting and reuse, if it
7 makes sense. We don't have any objection to
8 evapotranspiration BMPs, if we can figure out what they
9 mean.

10 We don't have any objection to those three
11 types of BMPs, which is what they would limit us to. And
12 they would make us do all that on site.

13 Our proposal is to do that when it is feasible.
14 And then simply to add one more category of BMP. It is
15 simply the biotreatment category of BMP.

16 A biotreatment category of BMP also requires
17 the entire volume to be treated, but it is the catch and
18 release version of LID. It requires good treatment through
19 natural processes and then a discharge. It allows a
20 discharge to come off the site.

21 Now, you can understand why that one word in
22 C2, first sentence, is so important to us. Because we're
23 actually relying on one word here, "capture," for our whole
24 conception of LID. It is very scary to a certain extent.
25 It's very tenuous. And I think you can appreciate some of

1 the angst we're suffering here today. I think you can
2 appreciate why we're asking this Board to make this choice
3 very clear.

4 This is a policy decision. This isn't
5 technical.

6 MS. BESWICK: And I think we got that.

7 MR. SINGARELA: Okay.

8 MS. BESWICK: I don't mean -- but, I mean, that was
9 what you started with. And we understand it's a policy
10 decision. And, actually, it has been discussed at the
11 Water Quality Coordinating Committee with other regional
12 boards as well. So we get that.

13 MR. SINGARELA: Thank you.

14 MS. BESWICK: And I'd kind of like to move it along a
15 little bit. I have an awful lot of speakers. Some that
16 want ten, fifteen minutes.

17 MR. SINGARELA: I understand. I'll wrap it up.

18 So make no mistake about it. This narrow
19 conception of LID that NRDC wants you to embrace as a policy
20 for this region is zero runoff. It's zero runoff for new
21 development, all the way up to the 85th percentile storm.
22 Yeah, of course, if you have some Noah's Ark storm, they'll
23 let you have something come off the property. But it is a
24 zero runoff proposal.

25 So what are you saying? Well, what you would

1 be saying if you were adopting this permit is all new
2 development can't actually use the public storm drain.
3 You're cut off. You're stranded. You're an island from the
4 public storm drain. Is that what you want to do? Does that
5 make sense as a matter of policy? It doesn't make sense to
6 us.

7 And contrast it to everybody else that's
8 already using the public storm drain. Where is the existing
9 water quality problem coming from today? From the rest of
10 the basin.

11 We, the developers, who are using the best
12 BMPs, are penalized and denied access to the public storm
13 drain. That is what you're being asked to embrace.

14 I say to the agency, it ought to get all your
15 questions answered today. You ought to deliberate on this.
16 This is a huge issue for the future of this region. And we
17 think when you really put it to scrutiny, you'll come to us and
18 let us continue to use natural treatment systems like the
19 IRWD approach. You'll let us use those in addition to the
20 three narrow BMPs and let us use it onsite or offsite.

21 Thank you very much, Madam Chairman. I
22 appreciate the patience.

23 MS. BESWICK: Thank you.

24 MR. PON TELL: Madam Chair?

25 MS. BESWICK: Yes.

1 MR. PON TELL: Could I ask a question? Because it is
2 one of my questions, and now it is being introduced. Maybe
3 the staff could just explain something to me.

4 MS. BESWICK: Sure.

5 MR. PON TELL: I am curious about the 85th
6 percentile. Is that -- why not 84? Why not 86? Why not
7 70? And how does it correlate to what the natural flow from
8 the natural property would have been with or without
9 development? I'm curious. What's the logic behind that?

10 MR. THIBEAULT: The 85th percent --

11 MR. ADACKAPARA: The 85th percentile was something
12 that was adopted by the Los Angeles Regional Water Quality
13 Control Board, what is called the susump requirements.
14 Those susump requirements were challenged and they
15 stayed -- when the Water Quality Control Board finally
16 upheld what the Los Angeles Regional Water Quality Control
17 Board adopted.

18 And that approximates to about 95 percent of
19 the storm event. So essentially what we're saying, if you
20 treat the 85th percentile of the storm, you capture about
21 95 percent of the runoff. It was based on that.

22 And then that order that the state board
23 adopted was considered as a precedent-setting order. And
24 the chief counsel from the state board issued a memo saying
25 all boards needed to adopt this.

1 So the 85th percentile comes from that.

2 MR. THIBEAULT: And, further, Mike, what I was going
3 to say is the 85th percentile capture or treatment is
4 already part of the WQMB for Orange County. It is something
5 already being implemented under the existing program. So it
6 is not a change in direction.

7 MR. PON TELL: So just as -- not as water
8 hydrologist, explain to me the logic behind capturing and
9 depending on the definition to the extent possible,
10 retained onsite more water than would have normally been
11 retained onsite. If the site was undeveloped, and assume
12 80 percent of the water was running off the site, as opposed
13 to 85 percent of it being captured now, what's the
14 rationale?

15 MR. ADACKAPARA: Under natural conditions, most of
16 the water will be evapotranspired or percolated into the
17 ground.

18 MR. PON TELL: Define "most."

19 You said most of the water will be -- because
20 depending on soil conditions --

21 MR. ADACKAPARA: I don't remember the exact numbers.
22 But it is pretty close to 90 percent of the water that falls
23 on the soil. That's for undeveloped land. There's no
24 structures on the land. There will be trees and bushes and
25 other vegetation to take care of the water that falls on the

1 land. So most of the water will be percolated.

2 And the numbers -- if I'm not mistaken, it is
3 pretty close to 90 percent of the water that falls on the
4 ground.

5 MR. PON TELL: So the 85 percent would correlate to
6 what would be naturally retained without any development?

7 MR. ADACKAPARA: That's right.

8 MR. PON TELL: That's the intent?

9 MR. ADACKAPARA: That's the intent.

10 MR. AMERI: Let me just explain something here.

11 The 85 percentile is not 85 percent of a
12 pre-construction. It is 85th percentile of the average rain
13 fall during the year which essentially comes out 95 percent
14 of any kind of storm event that happens in Orange County.

15 In other words, the new development will not be
16 able to drain any water to the storm drain system 95 percent
17 of the time during the year.

18 MR. PON TELL: Is that correct or --

19 MR. ADACKAPARA: That's reasonably accurate, yeah.

20 MR. FRESCHI: That sounds very narrow to me. I agree
21 with the gentleman. That's a narrow imposition on the
22 building and the development -- building or development of
23 the property.

24 MS. BESWICK: If we could. I'd like to finish
25 hearing the speakers, and then let's talk about that. I

1 think we need to do that.

2 Mark Grey, followed by Eric Strecker.

3 MR. GREY: Chair Beswick, members of the Board,
4 staff.

5 Mark Grey, representing the Construction
6 Industry Coalition on Water Quality.

7 I'm going to -- Paul covered a number of the
8 areas today. I'll endeavor to be as brief and snappy and
9 entertaining as I can.

10 MS. BESWICK: You're off to a good start.

11 MR. GREY: Thank you.

12 First off, so you know who I'm representing.
13 I'm the technical director for the Construction Industry
14 Coalition on Water Quality. And I represent the management
15 and the labor, the women and men who build most of the
16 projects that we are providing conditions for in these
17 permits in Southern California. And I represent the
18 Associated General Contractors of California, the
19 Building Industry Association of Southern California, the
20 Engineering Contractors Association, and the
21 Southern California Contractors Association.

22 Again, it is a coalition of management and
23 labor, women and men who build the infrastructure and
24 housing needs throughout Southern California.

25 MS. BESWICK: Can I add, then, is Paul in your

1 employ on this subject?

2 MR. GREY: Paul works with us, and also Eric, after
3 me, works with us.

4 MS. BESWICK: Well, try and only cover things not
5 already covered.

6 MR. GREY: Exactly. I've got a presentation.

7 There were some changes today. I'm going to
8 cut to the chase on a couple topics that Paul -- I don't
9 think he covered in detail.

10 First off, what I want to cover today -- next
11 slide, please. I wanted to make remarks on the progress we
12 made in the stakeholder group that was an excellent process.
13 We did have a divide in that process. Paul talked about
14 that divide.

15 Universal retention of the 85th percentile
16 storm, which, for the audience and everyone else, that
17 equates to three-quarters of an inch to, maybe, in the
18 foothill areas up to an inch and a half of rain fall.
19 Something we can all relate to.

20 We're talking about handling, in low impact
21 development BMPs, three-quarters of an inch to an inch
22 and a half, depending on your location. We reached
23 this divide in the stakeholder group.

24 I'm going to present a couple slides on low
25 impact development definition from US CPA and the

1 State Water Resources Control Board. Very important
2 definitions that we're asking staff to help us clarify and
3 make sure that's what you mean in the permit. That's my
4 clarification point.

5 Next slide, please.

6 We have a great history of progress. Great
7 history of collaboration, supporting stormwater management
8 sound solutions in Orange County. We really -- I want to
9 point out we support this master planning concept into the
10 permit. Very important. Can guide us in infiltration,
11 where infiltration suitability. Can guide us where
12 harvesting and reuse makes sense. Relative to what agencies
13 like Orange County Water District is doing. Where it is
14 appropriate. Where it is not. We are very supportive of
15 master planning in this permit.

16 Next slide, please.

17 The divide -- Paul mentioned the divide. We
18 don't believe that universal retention makes sense for low
19 impact development. Filtration of water through engineering
20 BMPs is an essential tool in using LID principles. This is
21 widely recognized and is recognized in national programs.

22 And now if I could just jump to what would be
23 slide five. Go back, please.

24 The US EPA LID definition, this appears in the
25 green infrastructure glossary. We've provided the cite to

1 Gary, Mr. Thibeault and Mike Adackapara, part of the staff
2 has the citation.

3 LID, a comprehensive stormwater management
4 insight design technique. Within the LID framework, the
5 goal of any construction project is to design a
6 hydrologically functional site that mimics predevelopment
7 conditions. This is achieved by using design techniques
8 that infiltrate, filter, evaporate, restore, and runoff
9 close to the source. I added the emphasis on hydrologically
10 functional and filter. "Filter" is an important word.
11 "Filter" means biofiltration. It means biotreatment. It
12 means treat and release. That's what we're asking for in
13 this permit. That the conception of LID includes not only
14 infiltration, harvest and use, evapotranspiration, but
15 biofiltration as well. Very important and critical.

16 Next slide, please.

17 State Board definition. This is our
18 State Water Resources Control board. The goal of LID is to
19 mimic the site's predevelopment hydrology by using design
20 techniques that infiltrate, filter, store, evaporate, and
21 retain runoff close to the source of rain fall.

22 I think you get our point. "Filter" is a very
23 important word here.

24 I would like to jump to slide 7 and 8, please.

25 There's been quite a bit of talk, and what I'm

1 going to skip over that I'll provide in our comments. There's
2 quite a bit of talk about national programs. How much water
3 they handle, what LID BMPs are allowed in these national
4 programs.

5 We've examined them very closely and provide on
6 the record, really, what are in these national programs and
7 what they require. I just offer that to staff and to the
8 board members for your use.

9 Next slide, please.

10 Next slide after that.

11 Before I go here. I ask you for just a few
12 clarifications. Number one, we are seeking clarification
13 that the LID performance standard permit and anticipate the
14 use of all LID BMPs, including LID treatment BMPs that
15 release water.

16 I think I made that point over and over. I
17 want to re-emphasize. That's very important to us. We
18 hope you please confirm that the definition of low impact
19 development BMPs that's used in this permit is constant
20 with the EPA definition. We would appreciate that
21 clarification. And I've got other comments on the slide
22 that can you see.

23 Next slide.

24 Number two in section C2, this word "capture."
25 That's very ambiguous and vague. We prefer it be

1 biotreatment. It could also be biofiltration or filtration.
2 We feel strongly that the word "capture" provides a tremendous
3 amount of ambiguity.

4 And I'm trying to be brief, Chair Beswick.

5 Number three, the last clarification that we
6 seek. We request that the word "strategy" in section 12C3,
7 which is obviously after two, replaced with the word
8 "preference."

9 And there, somewhat, we think that this would
10 support staff's intent, and we've talked to Staff in length
11 and stakeholder groups and subgroups that we talked about
12 LID BMP sizing about prioritizing various LID measures. And
13 we think this change would support Staff's intent of
14 prioritizing but not mandating the mimicking of
15 predevelopment hydrology. This then would be a directional
16 statement and not a mandate.

17 I conclude today in my remarks -- last slide,
18 please. We support LID at the Construction Coalition on
19 Water Quality. We support the full conception of it. Not
20 allowing it to be zero discharge. That doesn't make sense.
21 It doesn't mimic predevelopment hydrology. It doesn't
22 necessarily match the water balance.

23 We feel there's a strong technical and legal
24 foundation for that, allowing some runoff from the property.

25 And finally, as I pointed out, I asked you to

1 seek clarification on some points. Especially, the LID
2 definition provided by US EPA and a couple word changes,
3 that you can see from the deliberations today, that C -- 2
4 some of the language, especially the word "capture" caused
5 confusion. We think by adding the word "biotreatment" or
6 "filtration," that that would clear up that ambiguity.

7 Thank you very much. Welcome any comment or
8 questions.

9 MS. BESWICK: Anyone have questions?

10 MR. AMERI: That's at least very important to me.
11 Mike, could you provide us with an actual written definition
12 of LID by EPA and by the State so we can actually -- not
13 that we don't trust you.

14 MR. GREY: Thank you.

15 MR. ADACKAPARA: There are actually a lot of
16 definitions for LID. Some of the definitions do include
17 filter as an option. Some definitions do not include filter
18 as an option. I don't know if there's one legally
19 defensible definition.

20 There are so many definitions. Even if we look
21 at EPA site. The EPA itself has several definitions for
22 LID.

23 The State Board has come out with some
24 definitions. Most of those definitions do include filter.

25 MR. AMERI: You're handing me to the website.

1 John, do you know if these definitions are the
2 correct language?

3 Is John still here?

4 MR. KEMMERER: Yeah. I have provided -- Mary Lynn
5 just said -- I want to make sure, in our submissions to the
6 Board, we provided all the links of the sources. I would
7 agree with Mike, most of the definitions include the word
8 "filter."

9 MR. AMERI: I didn't know the word "filter" was
10 included in the definition of EPA and State language for
11 LID. I really didn't know that.

12 MR. FRESCHI: Is a copy of your presentation
13 available to us? I don't have it here.

14 MR. KEMMERER: Yes, sir. No, I have not.

15 MS. BESWICK: No hard copy. I don't think we have a
16 hard copy of your slide.

17 Mr. Kemmerer: I'll get one made.

18 MS. BESWICK: Thank you.

19 MR. FRESCHI: Just the definition page. That's all
20 I'd like to see.

21 MR. KEMMERER: We have provided it in some
22 attachments and letters to the Board.

23 MR. AMERI: On that big --

24 MR. KEMMERER: I'll be happy to find it and pull it
25 out for you, Chair Beswick. May I?

1 MS. BESWICK: Okay. While he's doing a search, we'll
2 have Eric come up and address us. After Eric, we'll have
3 Greg Woodside.

4 MR. STRECKER: Madam Chair and the Board, I'm pleased
5 to be here today. It has been very intellectually
6 stimulating to be involved in the consensus building process
7 up to this point. But I'm going to be the technical nerd
8 here and get into the engineering side of things. I'll try
9 to be as fun as an engineer can be.

10 If I can go to the next slide.

11 Just a brief introduction on myself. I've been
12 a registered civil engineer in the State of California since
13 1987. I've got almost 25 years experience helping folks
14 think about both the applied research side of urban
15 stormwater as well as actually getting things into the
16 ground. I was a member of the Blue Ribbon Panel to the
17 State Board on whether numerical effluent limits are
18 feasible in the stormwater permits. And I've managed a
19 number of other projects. And I won't go through the rest
20 of those.

21 Next slide.

22 I think we need to step back and see what makes
23 stormwater BMP effective or not. It's really a function of
24 a number of parameters.

25 First one, what does the runoff look like? How

1 does it arrive? How do storms arrive? Do they come
2 together? Are they spread out? Those kinds of thing.

3 Next thing you need to think about, what kind
4 of volume am I going to have to store that water, either
5 temporarily -- I guess it's all temporary -- until I can
6 infiltrate it, evapotranspire it, harvest and reuse, or draw
7 it down. So -- and I just alluded to the next part, how we
8 look at BMP function. It is not about the size of the
9 facility. It is about how fast I can recover the storage,
10 so I'm ready for the next event.

11 If the tank is full or the bioretention system
12 is full, the next event comes and I'm bypassing. And I don't
13 get the treatment or capture onsite or whatever the goal is.

14 And finally, what's important is the treatment
15 processes included. What are the physical, biological, and
16 chemical treatment processes that I include in the system to
17 get after the pollutants and parameters of concern. And
18 that, to me, is an issue even with infiltrate. I want to
19 make sure before I infiltrate I'm doing the right processes
20 along with if I discharge from the site.

21 Next slide.

22 So let's talk about weather patterns -- it's
23 actually applicable to the West Coast. The West Coast, if the
24 high pressure ridge is up, we're not getting a lot of rain.
25 We might get a freak thunderstorm once in a while. The high

1 pressure ridge is down, we get a series of storms coming
2 through, pretty much, back to back. That's very different
3 than other parts of the country. Say, if you go to the
4 East Coast where the storm patterns are much more regular
5 throughout the course of the year.

6 In addition, much of our runoff falls in
7 January and February. And next highest portion is in
8 December and March, so those are really when the rainfall
9 comes.

10 So the results of that is when we look at
11 harvest and using for irrigation onsite, it is very
12 different. We are getting all the water at the same time.
13 It's very hard to use that in a way for irrigation. And
14 then evaporation opportunities are limited. We're getting
15 rainfall at the same time we want to be evaporating.

16 Next slide.

17 One of the things I haven't heard in a lot of
18 this debate is thinking about what is really the natural
19 water balance. One of the things I'll fault LID with today,
20 they haven't thought about ground water. Everybody's
21 focused on mimicking hydrology. And hydrology, to me, as a
22 practicing engineer, does not include just surface runoff.
23 It also includes what infiltrates and impacts ground water.

24 So in Southern California -- and I can -- the
25 citations are in some of the submittals I have given to

1 you -- roughly on the order of 80 to 95 percent of
2 precipitation on undeveloped lands is evapotranspired.
3 And then somewhere between 2 to 10 percent is either runoff
4 on an average annual basis or deeper infiltration.

5 You know, and when we put in impervious areas,
6 we reduce the area we can use for evapotranspiration. And
7 if we have a goal as a society in having dense developments
8 that, again, limits the ET areas that are available. And we
9 can help mitigate that by putting in things like green roofs
10 and porous pavements.

11 But, you know, I look at how applicable those
12 are in all conditions and whether they're going to work
13 everywhere.

14 Next slide.

15 So let's talk about infiltration. The first
16 question, can you do it? And much of the soils in
17 Orange County have very limitability to quickly infiltrate.
18 I don't know how many of you have dug a hole in the ground
19 to plant a tree. And you put water in it and see how long
20 it sits there.

21 I would also argue that soil amendments -- you
22 can put soil amendments in the hole, all you're doing is
23 reducing the storage of the hole. The water's still going
24 to sit there for a long time. You really have to think
25 about what are the underlying soils. You're not going to

1 fix the problem by just amending the soils on the site. You
2 might increase the storage, but, ultimately, it will not fix
3 the problem of getting the water in the ground.

4 So when that storage that's provided in
5 infiltration is full, bypass occurs.

6 Next slide.

7 The next question you have to ask. Should or
8 how much should I infiltrate?

9 So I think about things like where I have
10 natural plumes like selenium out in Peter's Canyon Wash
11 area. There's manmade plumes. We have areas upgrading of
12 dry streams, if I shove a bunch of more water in the ground
13 over natural conditions I might convert to a willow Arundo
14 thicket. And I'd like to say, Mr. Toad isn't happy in that
15 circumstance.

16 That was a joke. Sorry.

17 If I don't match ET rates, then I'm going to
18 have infiltration -- if I use infiltration to match runoff,
19 I'm going to have increased infiltration over natural
20 conditions. Is that a good thing? I would say, if I was in
21 an aquifer that's being managed, great.

22 You know, Central Valley, California, where
23 they're pumping the heck out of that thing, I'd be
24 infiltrating in a safe manner as much as I could. But in
25 watersheds where that's not the case, I would be thinking

1 about that.

2 Next slide.

3 The next question is, if I'm going to do it,
4 I need to do it carefully. I need to do it in areas above
5 the water supply aquifer or unnaturally low for some
6 circumstance, but up to a certain point to get back to where
7 it should be, and it must be done in a way to protect the
8 water supply. We need to work with water agencies and say,
9 "Let's do this in a way you can live with." So bottom line,
10 infiltration should be carefully thought through on a
11 watershed-by-watershed basis.

12 Next slide.

13 Let's talk about evapotranspiration. After
14 development, there's going to be less area of
15 evapotranspiration available. So even with vegetative roofs
16 and especially in high density projects. It's not
17 appropriate to compare monthly precip to monthly ET rates
18 when one's looking for using ET as a way to get rid of
19 stormwater. Again, the storms arrive back to back. And
20 storage within the soils are not going to recover enough
21 when the next storm arrives.

22 On the next slide, this is the -- the magenta
23 color is the average monthly precip in Irvine. And the
24 green color is the average monthly evapotranspiration. And
25 a point has been made in some of the submittals that when

1 you look at December/January, they're roughly equivalent,
2 "Why can't we do it?"

3 The next slide shows weekly values. And here
4 the blue, again, is rainfall on any given week, or average
5 for a week and the evapotranspiration levels. So you start
6 to get an understanding that I'm getting a lot of water when
7 my evaporation rates are low.

8 The next slide.

9 Here's a natural site, you know,
10 predevelopment. I have the whole site to use as my ET. I
11 like to call it the sponge. You know, after I develop and
12 put in bioretention areas, shown in blue -- let's say, in
13 this example, even if I put green roofs on all the houses,
14 that's not the same level of sponge pre and post. And so
15 we have the difference between ET levels and precip as it
16 comes, and then compounded with the fact we don't have as
17 much area to use for evapotranspiration.

18 So the next slide..

19 We also have an issue from a vertical
20 standpoint. Again, I've got the system spread out. I can
21 amend soils in the bioretention area. I can amend soils out
22 in the rest of the site as well to try to act as more of a
23 sponge. And I should do those kinds of things. But I'm
24 only going to have that certain area of a small bioretention
25 area, in this particular case, to do my, you know, storage

1 of the runoff from the site and get it into the ground.

2 So next slide.

3 What are the general water balance
4 implications? I'm not the top chart -- this will be
5 different for every site. On the top chart, in semiarid
6 climate, I'm showing a 70 percent ET. I mentioned earlier
7 it can be much higher than that.

8 Let's say, you know, on site it is 10 percent
9 surface discharge and 20 percent percolation. If I put in
10 LID to match pre and post runoff, I might have 70 percent
11 percolation. In the water supply reservoir, great. In
12 somewhere where that's not appropriate, that's a potential
13 habitat change issue or other issue, ground water table,
14 elevation levels, and the rest of it.

15 So my point in all of this is we really need
16 to think carefully, you know, where it is smart to
17 infiltrate and how much ET can I really get on a site.

18 Next slide.

19 So let's talk about capture and reuse.

20 One of the projects I had the pleasure to work
21 on with the Irvine Company is the Pelican Hills Resort. And
22 that was a unique condition. We actually have cisterns --
23 you're seeing a picture of a 650,000-gallon cistern that was
24 put in. We drained a Crystal Cove in this project. A
25 highly sensitive project.

1 The Irvine Company asked me to come up with a
2 way to have no increase of runoff. And they wanted to
3 increase infiltration. I say, "What do I have left to
4 play with?"

5 What I had was the evapotranspiration sponge.
6 And looking at irrigation on just the site, I couldn't get
7 there. Fortunately, I was next door to a 36-hole golf
8 course; I could get there with the greens because they do
9 water those relatively soon.

10 So the key for capture and reuse is having a
11 use for the water in the first place. Can I use it for
12 irrigation or toilet flushing or some other process water?

13 The second one is being able to use it.
14 There's lots of code issues that we haven't talked about
15 today.

16 And the third one is being able to get rid of
17 the water fast enough. And if I can't get that tank drained
18 within a 2- to 3- to 4-day period, the next storm will come
19 along and start bypassing the system. So it will not be as
20 effective.

21 Next slide.

22 So this is a slide, actually, where I did a
23 double damp size tank. And this is a series of storms. I
24 picked an example from 1962.

25 So you can see in February of '62, there were

1 quite a number of storms that came back to back. What it is
2 showing, there's, you know, bypass events going on every
3 event during that sequence there and then releasing runoff.
4 And this was a tank designed for 1.6 inches of capture from
5 the site. Not the damp size.

6 So next slide.

7 And what happens when I look at pollutant
8 loadings? Now, I'm back to a damp size tank. But I provided
9 you guys an example of a hundred acre residential
10 development where I use a cistern for capture, and used for
11 both irrigation and toilet flushing. I've probably over
12 assumed irrigation because I used the simplifier approach to
13 that, and it's probably less available than I came up with.

14 And toilet flushing I also used some numbers
15 that when people -- for those of you who can't go to the
16 men's restroom, there's no flush urinals in there. If I was
17 going to make this work, I'd want high flush urinals in the
18 winter and no flush in the summer, I guess.

19 So the bottom line is when I looked at over
20 average annual pollutant loading basis on the capture and
21 reuse, assuming I didn't treat the bypass, I would only
22 capture -- remove 55 percent of the load of TSS, that's
23 total suspended solids. Or with bioretention with under
24 drains I would remove about 63 percent.

25 I would say, in this case, I would argue that

1 the bioretention with under drains was a better solution.

2 Next slide.

3 And then if we look at the average
4 concentrations coming out of the systems. With the cistern
5 bypass, again, provided you don't require an extra treatment
6 beyond the cistern size, then we're releasing at the inflow
7 concentration. So we've had no treatment for that bypass.

8 So the other point I'd make is the bioretention
9 with the under drains is resulting in a lower concentration
10 on an average annual basis as well.

11 So the point here, again, we got to drain the
12 tank fast enough, similar to the drain range for ET and
13 infiltration systems.

14 And we're talking about the 85th percentile
15 storm earlier. And that, actually, in studies around the
16 country has shown to treat about 80 percent of the runoff.
17 And that was assuming about a 36-hour drawdown time. And
18 that's how that number was first developed. It was a
19 study by Better Bonus at Urban Drainage in Denver. And
20 along with Larry Rozner (phonetic) who's now at
21 Colorado State.

22 Again, as a key element, it is not just the
23 size of what you require, but also the drawdown rate was
24 included in that.

25 We have irrigation, you know, use is limited

1 with these systems, seasonal issues. You know, there's a
2 big push to do zero scaping. So drought tolerant plants. I
3 have some suggestions, "Why don't you overwater for a long
4 time?" I'm thinking, what's a plant pallet that likes to be
5 dry and then also be flooded for a long time. There's
6 issues there.

7 Competition for reclaimed water. You know, if
8 we require folks to do this for toilet flushing. About the
9 same time that IRWD has the worst time to get rid of
10 reclaimed water is the same time we would be trying to use
11 it for irrigation. And all of a sudden, we have a conflict
12 between those two things.

13 One of the things I have looked at -- I have
14 come up with a new name for a ratio. I'm calling it TUTIA.
15 And I do think if you do have enough toilet flushing --
16 toilet users to impervious areas, you can actually show --
17 it can work.

18 I did this in a building in downtown
19 Los Angeles. And we were going to combine it with the
20 Gray Water System. And I could show it could work cost
21 wise, got to a reasonable standpoint. Unfortunately, I ran
22 into the City of Los Angeles building code folks; it was
23 "over my dead body" in terms of that -- being able to do
24 that.

25 I think there's some points where some of these

1 systems start to become more viable when you have enough
2 processed water use.

3 Finally, this next slide -- just so you guys
4 are aware of some of the infrastructure you would need.
5 You've got to think about the conveyance and pretreatment to
6 get the runoff into some sort of a storage tank. There's
7 treatment issues. If you're going to use it for irrigation,
8 particularly, in a pressurized system, you're going to have
9 backflow valves, UV treatment, and the rest of it, pumping
10 and piping and all those kinds of infrastructure issues.

11 And, again, I think in certain applications it
12 makes sense. And other ones we might ask the question.

13 So next slide.

14 That just gives you a summary of some of the
15 codes that we're going to have to think about. So in
16 summary on harvest and use, I think, we need to be --
17 carefully consider where it makes sense or not.

18 Next slide.

19 You have seen this definition, so I'm not going
20 to go into that, the first one.

21 The second one, I think, is important, though.
22 There was a National Research Council report put out. It
23 was called Urban Stormwater Management in the United States.
24 In that report they retitled LID -- they use their own term,
25 Aquatic Resource Conservation Design.

1 patterns and how they effect the performance of these
2 systems. Infiltration is not broadly feasible, effective,
3 and/or desirable in all cases. Harvest and use and runoff
4 due to runoff patterns and ET potential has limited
5 application. We should try to do as much as we can. And
6 I've tried to do it on my projects, but it is limited. And
7 then LID and the permit should include all of the elements
8 of LID, including source control -- we haven't talked a lot
9 about that today -- retention, detention, and filtration.

10 I thank you very much for your time.

11 MS. BESWICK: That was great, actually.

12 Thanks for being as brisk as you could be with
13 that. There was a lot of the information.

14 I'm asking Gery, -- I think it would be
15 important to have you comment on this issue we've heard
16 thoroughly discussed now about asking that people retain
17 only onsite.

18 MR. THIBEAULT: I would like to point out, first of
19 all -- Eric, I hope you were listening. Eric gave, you
20 know, an awfully good proposal for his company to do the
21 feasibility studies that Orange County needs. And I want to
22 make it clear that what was just described here is what
23 we've asked for in the permit. Someone to do the evaluation,
24 to look at the feasibility.

25 If you're getting the impression that we're

1 requiring everything be retained onsite, then someone is
2 giving you the wrong impression.

3 What we're requiring is the county to do what
4 Eric just described. Go through the feasibility and, you
5 know, I know we'll say it 50 more times, but we want to make
6 sure that where infiltration or capture or whatever the
7 other options are, are not feasible, no one is suggesting
8 that they be required.

9 And if you are made to feel like that's what
10 the permit requires, I suggest we need to look at it again.
11 It says, if not feasible, don't do it.

12 And so this type of evaluation -- and Eric's
13 done a lot of these things. I mean, he's had a lot of
14 experience. This is exactly the kind of feasibility study
15 we are looking for from the permittees.

16 MS. BESWICK: And earlier when Mark was talking, he
17 talked about technically-based feasibility criteria. Is
18 that what we're looking for as a result of the feasibility
19 study?

20 MR. THIBEAULT: Uh-huh.

21 MS. BESWICK: I guess it was important to make sure
22 we all understood there's not one method being purposed
23 here. It is just awfully focused on one thing. I want to
24 make sure we're not losing sight of the broader picture.

25 Greg Woodside, followed by Garry Brown.

1 MR. WOODSIDE: Good day.

2 Greg Woodside. I'm here for the
3 Orange County Water District. I'm the planning and
4 watershed management director.

5 Just a couple points. We're concerned -- we've
6 commented and we've talked with your staff. We're concerned
7 that if infiltration systems are not operated correctly,
8 they're not maintained correctly, there could be impacts on
9 ground water quality.

10 There have been studies in other areas in
11 LA County about infiltration systems like these. And there
12 are no adverse impacts to ground water quality found if
13 they're maintained and operated correctly. That's what the
14 studies showed.

15 We don't have that kind of data in
16 Orange County. We appreciate the fact that the permit now
17 has a pilot ground water monitoring program. We think
18 that's important. We appreciate that inclusion.

19 We certainly feel that infiltration is not
20 feasible in all locations. That's been discussed already.

21 But there are conditions, such as shallow ground
22 water, where infiltration might not work.

23 We do --

24 MS. BESWICK: Say that again.

25 MR. WOODSIDE: There are conditions where

1 infiltration just may not work because of shallow ground
2 water.

3 We do encourage infiltration to the extent
4 practical at a regional level. We feel if it's at a
5 regional level, or a subregional level, you know, more of a
6 clustered implementation, it will be easier to monitor if
7 there's any potential impact. We think that's something
8 beneficial.

9 We have one technical point. It was mentioned
10 earlier, the separation. There's the separation distance
11 between the bottom of the infiltration system and the
12 seasonal high ground. We have a little diagram here that
13 shows what we're talking about.

14 So simplified graphic here. We have the ground
15 surface. We have what is call beta zone or dry well type
16 infiltration. That's symbolized by the well. And it's
17 above the saturation zone, it's above the seasonal height
18 ground water level, in the what we call beta zone, or
19 unsaturated zone.

20 And the current draft has a five-foot
21 separation between the bottom of the infiltration system and
22 the high ground water elevation.

23 The previous draft was ten feet. And we would
24 request that they go back to the ten feet.

25 MS. BESWICK: By the way, we have a monitor down

1 here. We're able to see what you're showing us.

2 MR. WOODSIDE: The question marks were there because
3 there's a degree of uncertainty about what the elevation is
4 for the seasonal high ground water table.

5 The Water District, ourselves, we have a lot of
6 data. The data is deeper. We don't have a lot of data to
7 say where the seasonal high ground water table is in some
8 locations. Now, in some locations it is pretty well
9 defined. But there's other locations where the seasonal
10 high ground water table is not well defined. There's
11 uncertainty about what depth it is.

12 We would strongly request we go back to ten
13 feet, so that there can be a margin of safety there.

14 The data that's out there shows, if these
15 systems are built in the unsaturated zone, they will work.
16 We need to make sure that they're in the unsaturated zone,
17 above the water table.

18 So we feel if we go back to the ten-foot
19 separation distance, we'll account for some of the
20 uncertainty in where that seasonal high water table is. And
21 it would be more protected.

22 That's our one request.

23 MS. BESWICK: Can somebody talk about why we went
24 from 10 to 5.

25 MR. THIBEAULT: I'll take that, Mark.

1 With respect to the five feet. Technically,
2 five feet should be perfectly adequate for soil treatment
3 and of percolated runoff. And that's been shown, you know,
4 in a number of studies in the past.

5 So I think we misunderstood what Greg was
6 getting at earlier in the process when he asked us to go --
7 to go back to ten feet. And that was the fact that just the
8 data that are available for the high ground water levels in
9 most areas are just not very good. And so the extra five
10 feet was to provide a margin of safety when the data aren't
11 good for seasonal high ground water levels.

12 And this is one of those issues that
13 Tim Moore talked you to about at the last board meeting.
14 Where it is a policy decision -- it is a risk decision
15 between 5 and 10 feet. This is not a technical decision.

16 And the ten feet does provide for more water
17 quality protection. Five feet, if you have good data,
18 provides good water quality protection with respect to
19 percolated runoff. So it is a data issue. It is not a
20 technical treatment issue.

21 MS. BESWICK: The question is, do we have good data?

22 MR. THIBEAULT: No.

23 MS. BESWICK: Thank you.

24 Garry, followed by Bart Lounsbury.

25 MR. BROWN: Actually, Madam Chair, we have a

1 presentation. And Dave Beckman is going to go first.

2 MS. BESWICK: Great.

3 MR. BECKMAN: Good morning. Good afternoon,
4 Madam Chair and members of the Board.

5 During the first hour of my presentation, I'm
6 going to have --

7 MS. BESWICK: During the first hour of your
8 presentation we're going to have lunch.

9 MR. BECKMAN: We'll try to move it along.
10 I'm a senior --

11 MS. BESWICK: David, one minute.

12 Do you need a break?

13 I'm sorry to do that to you. The court
14 reporter has been -- we won't go anywhere.

15 Do you mind if we give her a couple of minutes?

16 MR. AMERI: Can we combine her break with our break?

17 MS. BESWICK: No, we can't.

18 MR. AMERI: Okay.

19 MS. BESWICK: Were you thinking of a lunch break?

20 MR. AMERI: Yeah.

21 MS. BESWICK: We don't have lunch yet.

22 (Pause in the proceedings)

23 MS. BESWICK: David, thank you for your patience.

24 MR. BECKMAN: Thank you, again. I hope that doesn't
25 count against our hour.

1 MS. BESWICK: No. Yeah, it is counted against your
2 hour. You have 15 minutes.

3 MR. BECKMAN: I had no idea what the folks this
4 morning were going to say.

5 Madam Chair, members of the Board, David
6 Beckman with NRDC. I codirect the National Water Program at
7 the NRDC. And we're pleased to be here today.

8 Bart Lounsbury, who works at NRDC, and Garry
9 Brown, we're all doing this joint presentation for you so
10 you get the NGO perspective in one bite-sized capsule.

11 Bart is going to walk you through some context.
12 I really feel after this morning you need that context.
13 Because if you just walked in here today, or dropped in
14 from some other planet, you would think LID was exotic.
15 That it was somehow being redefined in some narrow fashion.
16 That it was onerous. It might have all sorts of negative
17 impacts on the community.

18 I heard everything except more high school
19 absenteeism or teen pregnancy, when Eric Strecker told you
20 all the variables.

21 MS. BESWICK: The hearing's not over.

22 MR. BECKMAN: Right, there may be more problems.

23 And you wouldn't know at all what is going on
24 in the United States and the rest of the world of LID. It
25 is not difficult. It is well-proven. And, most important

1 for your regulatory responsibility, it is the only thing on
2 the table today that gives this permit any chance of being
3 successful. Gives it any chance of being lawful when
4 adopted. And gives the permittees any chance of actually
5 meeting water quality standards, as another part of the
6 permit requires them to do.

7 In our perspective, in listening to the
8 discussion this morning, that LID is a gift horse that these
9 permittees are looking in the mouth. This is the solution.
10 And more and more people, including the building industry,
11 nationally -- and I think in California, to some extent
12 too -- are recognizing this is something they should
13 embrace. Not throw so many hurdles in front of.

14 And so the discussion on feasibility and
15 infeasibility, all of the issues, are important. But the
16 permit, as the executive officer indicated, said if it is
17 infeasible, you don't have to do it. And NRDC says, if it's
18 infeasible, you don't have to do it.

19 Now, where we differ is what is feasible and
20 what's not. And as to that, you should look at the record.
21 You have extensive amount of information -- we're going to
22 summarize it for you today -- that talks about feasibility
23 of LID. And it particularly talks about feasibility on
24 retaining water onsite whenever practicable. Not every
25 drop. That was, I think, either a misstatement or just in

1 the flow of an extemporaneous set of comments that was a
2 suggestion we're requiring -- we want you to require every
3 drop of water be retained on site. That's not true. We
4 don't.

5 But we do want that maximized. And why do we
6 want it maximized? Because it's a superior way to address
7 the water quality problem in Orange County. That has,
8 unfortunately, a huge number of impaired water bodies. Not
9 withstanding your best efforts of those of the permittees.

10 This community has not been successful yet in
11 addressing water quality problems. That directs you, or
12 should direct you in terms of policy. And I assure you, it
13 changes the legal framework. It changes the context of what
14 a permit should look like.

15 So what we're here to say today is you should
16 set a standard that does requires the maximum extent
17 practicable. And then you should allow appropriate
18 exception whenever it is not possible to accomplish that.

19 You should not set a minimum standard that
20 might be the lowest common denominator that works
21 everywhere because that's not consistent with good policy,
22 and there will not be a successful approach in terms of the
23 water quality.

24 I'm going to back-end some of the comments that
25 Bart will make to try and give you the context why it is so

1 important.

2 So with that kind of, hopefully, a refraining
3 to focus on MEP, to focus on your obligation to meet water
4 quality standards, to recognize we do have to do things
5 differently. Bart will come up and give you some of that
6 context around the country. We'll show you an EPA
7 definition of LID exactly like ours. And I will describe
8 what we'd like to see done with the program.

9 Thank you.

10 MR. LOUNSBURY: Good morning, Madam Chair, members
11 of the Board.

12 I'm Bart Lounsbury from the Natural
13 Resources Defense Council, as David mentioned.

14 David hinted at this, but the reason we're so
15 focused on LID today, and probably why a lot of the
16 commenters here today are so focused on LID, is that the
17 conversion of impervious surfaces and natural areas to
18 impervious surfaces through development is the leading cause
19 of water quality impairment in Orange County and, indeed,
20 around the country in general.

21 And LID has been proven through many studies to
22 be a superior technique for treating stormwater. The
23 Ocean Protection Council of California, just last year, came
24 out with a very strongly worded resolution, that I believe we
25 sent to you in our packet, showing that LID is a practicable

1 and superior approach. And encouraging regional boards and
2 various other entities to adopt LID as their approach to
3 stormwater management.

4 US EPA has said the same thing. You heard that
5 today from Mr. Kemmerer.

6 How do these practices function? Well,
7 apparently there are many definitions out there. This is
8 one from EPA which actually says that it is retention. It
9 is infiltration, evapotranspiration, and reuse of
10 stormwater.

11 Those are three different techniques.
12 Mr. Strecker touched on this. They're all viable here in
13 different scenarios. And where infeasible, we believe there
14 are alternatives that can be taken. And that this permit
15 does, to some extent, accommodate, but needs to accommodate
16 better.

17 The State Water Resources Control Board has
18 noted the extreme importance for having performance
19 requirements for LID implementation.

20 So in this case what we've been arguing about,
21 I think, a lot today is exactly that paragraph -- those
22 couple paragraphs in the permit, where the performance
23 requirement is established. That's why it is important.

24 US EPA also placed, as you heard from
25 Mr. Kemmerer, very high degree of emphasis on assuring that

1 there are clear, measurable, and enforceable provisions for
2 the implementation of LID. And where it is infeasible to
3 implement LID onsite, there should be appropriate offsite
4 mitigation options to achieve equivalent results.

5 Now, EPA also stated, that where onsite
6 management is not feasible, conventional means should not be
7 counted toward this type of numerical performance standard
8 that should be established by the permit. And that's very
9 important.

10 The types of techniques that we've been talking
11 about fall into various categories. Maybe people who argue
12 about what is LID and what is not. We agree some are much
13 more effective than others. And those are ones we should
14 privilege in this permit. And that's what we're trying to
15 do through our comments on this permit today.

16 EPA, in fact, has also noted that in this
17 region, typically, permits rely on deferring the creation of
18 standards to plans that are drafted by the permittees and
19 later submitted for approval by the EO or potentially not
20 even for approved at all, necessarily. And those tend to
21 rely on qualitative provisions rather than specific
22 measurable criteria.

23 Which is particularly problematic because the
24 permits themselves should have established those specific
25 measurable criteria. Which would then defer plans that

1 don't even have the criteria in them. We want to make sure
2 that this permit itself has the necessary criteria at the
3 outset.

4 This has been so problematic, in fact, in the
5 San Francisco Bay Region context, that EPA has threatened to
6 consider objection to that permit. This is a letter -- from
7 a letter they wrote to the San Francisco Regional Board this
8 month.

9 So this is an extremely important issue for all
10 of us. And EPA, appropriately, today is placing a very high
11 degree of emphasis on ensuring that these kinds of standards
12 are in the permit.

13 Why are we focused on LID? Because it is so
14 vastly superior to conventional BMPs. We had
15 Dr. Richard Horner, who is the preeminent expert on
16 stormwater in this country. In fact, he was on the
17 National Academy of Sciences Panel mentioned by
18 Mr. Strecker.

19 We had him do a study for us in various areas
20 around California, San Diego, Ventura County, the
21 San Francisco Bay area, analyzing the feasibility of LID
22 limitations and the benefits that would accrue from that
23 implementation.

24 These are the results for Ventura County.
25 They're very similar for San Francisco Bay, as well as.

1 San Diego. And can you see here that LID BMPs are achieving
2 significantly higher rates of pollution reduction, as
3 compared to even the best performing BMPs.

4 He also -- Dr. Horner also studied specific
5 case sites here -- this is a restaurant I think he did --
6 and how much runoff reduction would occur through the
7 implementation of these BMPs in a feasible manner.

8 And you can see here that there would be
9 approximately a 7 percent runoff loss on an undeveloped
10 site. Which correlates with what Mr. Adackapara was saying.
11 Then with no stormwater mitigation, 49 percent lost. Even
12 with the best performing conventional BMPs, it's 26 percent
13 loss. But under the designed storm conditions, with LID
14 properly implemented, there would be no runoff loss on the
15 site. This has vast benefits.

16 Also at another case study site, a large
17 single-family home subdivision. In addition to removing
18 pollution, obviously, from the system, it also saves water
19 that results in cost saving for developers, for homeowners,
20 and also reduction of even green house gas emission because
21 of the extreme energy intensity of our water supplies here
22 in Southern California.

23 I don't think there's any surprise everybody
24 supports LID, including the National Association of Home
25 Builders. No one here today said that LID is not a great

1 technique for managing stormwater.

2 So around the country new standards are being
3 adopted. There's an emerging trend toward the types of
4 retention standards that we think this permit needs to
5 incorporate.

6 Anacostia in Washington DC, an urban area, has
7 adopted this standard, which is to retain the first one inch
8 of rainfall onsite. That's retention.

9 As someone mentioned earlier, the design storm,
10 the 85th percentile storm in Orange County results in about
11 .75 inches of stormwater in most locations. This is
12 actually a more stringent standard.

13 And then wherever that's infeasible to meet,
14 there should be offsite mitigation options. And they have
15 multiplier ratios for those, in Anacostia.

16 The situation is very similar in the
17 West Virginia draft phase 2 permit. Retain the first one
18 inch onsite. If you can't do that, use offsite mitigation
19 or in lieu payment at a 1.5 multiplier for the unretained
20 portion.

21 That's something we think is very feasible,
22 here. And we hope that that's what you'll ultimately do
23 with this permit.

24 Philadelphia has the same standard. Retain and
25 infiltrate the first one inch. They actually only allow

1 infiltration of the first one inch. We are supporting a
2 standard that allows for infiltration of evapotranspiration
3 and harvest and reuse.

4 We have various techniques to accommodate a
5 wide range of sites. And even when that's infeasible
6 there's always the option for offsite mitigation.

7 I think David will speak specifically to the
8 concerns of this permit and the language it includes now.

9 MR. BECKMAN: Thank you, Bart.

10 Hopefully, that gives you some sense -- and what
11 I want to emphasize, what is before you, even with the EPA
12 changes, is less than what West Virginia -- a phase two, not
13 even a phase one permit is considering -- less than highly
14 urbanized area in Washington DC.

15 And you've had a chance to review the letter we
16 sent. We have six or eight different standards that
17 demonstrate to you that what you're asked to approve today,
18 with the EPA changes, is significantly less stringent than
19 many other places around country.

20 You wouldn't get that sense, I don't think,
21 from this morning's presentation. But I think it's critical
22 for your deliberation. Will Orange County adopt something
23 less stringent than a phase two community in West Virginia?
24 That's the question.

25 Now, we have a lot of concerns with the permit.

1 Even with the EPA changes, that we appreciate and we think
2 strengthen the permit. You should understand that this is
3 not the NRDC permit as Mr. Singarella suggested or an NRDC
4 provision.

5 We have suggested something more stringent. We
6 have concerns about the design storm. And more
7 specifically, what happens if you can't retain the 85th
8 percentile storm that you've selected onsite.

9 As Bart indicated, we think you should follow
10 what every new communities that are considering what these
11 requirements are doing. Which is very similar to a wetland
12 situation, where you mitigate offsite.

13 Why do you do that? Because we are after a
14 watershed level of performance. We don't want the exception
15 for infeasibility to mean that folks don't do as much as
16 they reasonably can, when you can go, maybe, on an adjacent
17 parcel and accomplish what you couldn't accomplish given the
18 circumstances of your development.

19 Why is that important? It's important because
20 we won't maintain the water quality goals if we are
21 constantly lowering the requirements based on a series of
22 factors.

23 So we want that clear performance standard. I
24 think the EPA suggestion goes a long way towards that goal.
25 And just so you can see the difference between something

1 that's clear and something that's not.

2 This is West Virginia. And it is very clear.

3 "You must implement and enforce site design standards and
4 manage to keep the first one inch of rainfall from a 24-hour
5 storm proceeded by 48 hours of no measured precipitation.
6 Runoff volume can be achieved" -- and they give you the
7 various ways to do it.

8 And then they clarify it. "The first one inch
9 must be 100 percent managed with no discharge to service
10 waters." Your permit is not that clear. And it should be.

11 That's the kind of language that results in
12 good performance because that's the kind of language that we
13 can all understand.

14 So that's one area of concern.

15 The EPA suggestion linking a lack of ability to
16 comply with the standard onsite to these alternative
17 programs is helpful. But those programs aren't developed.

18 One concern we have with this permit and,
19 frankly, others is that the permits don't make the regional
20 board make the decisions that the regional board should be
21 making. You are the only folks in the room that are allowed
22 to issue a permit. With all due respect to the executive
23 officer, he is not.

24 By having the executive officer basically judge
25 all the feasibility issues, all the alternatives, you're

1 basically giving up your responsibility, in my view, to
2 decide decisions and be the deciders, so to speak.

3 Why is that a problem? For lots of legal
4 reasons. But from a practical respect, how is the public
5 supposed to engage in that process? How do you know if
6 Mr. Thibeault makes the right decision, or doesn't make the
7 right decision?

8 That is a significant issue. There's a lot of
9 case law on it now that makes it clear the executive officer
10 can't be in the position alone of judging the adequacy of
11 provisions like this. Because they're, effectively, the
12 management of the permit.

13 We want to see the programs spelled out in a
14 public way. And you should make the decision on that. Not
15 anybody else.

16 And I've basically covered this bullet as well.

17 Now, one of the things I'm going to try to do
18 before turning it over to Garry is just to connect the dots.

19 Bart indicated why LID is so important. Why
20 that retention standard is so critical. But there's a
21 context even beyond LID that, I think, is important for the
22 Board to consider in making its decision. And that's there
23 are other issues in this watershed. There's the need to
24 comply with TMDLs, for example.

25 How will you comply with the TMDLs if you don't

1 significantly reduce the amount of the pollution? If you
2 don't require permittees and those they regulate to select
3 the best BMPs, the likelihood of meeting the TMDL
4 requirements is very low. And that creates other legal
5 problems.

6 By selecting strong management provisions, you
7 actually can assist the permittees in doing what we want
8 them to do. Which is to improve water quality. All of the
9 feasibility concerns that have been raised, as I said, can
10 be dealt with with proper provisions. But they shouldn't
11 ignore the vast amount of science and technical information
12 out there that shows these provisions and ones much more
13 stringent are feasible. That's the information before you.

14 That's why I would ask Mr. Kemmerer to
15 respond. That the issue about the language in the first
16 provision is not just about a delay. It's about the
17 presumption that we need to prove in Orange County something
18 that's -- prove the feasibility of LID in Orange County, but
19 it's been proven to be feasible everywhere else. That this
20 is some new thing. It is not.

21 In fact, it's being done here by builders in
22 Orange County before the permit is being considered by you.

23 There's another issue. There's a new case that
24 you probably haven't dealt with before because of -- the
25 permit wasn't reissued in 2007. And that's the

1 Friends of Pinto Creek v. US EPA.

2 Long story short. In impaired watersheds like
3 we have, unfortunately, in Orange County, there's a
4 significant restriction on new development and new sources
5 of pollution when there are no TMDLs in place. And there
6 are restrictions when there are TMDLs.

7 Practically speaking, what's the best way to
8 make sure the permit complies with these kinds of
9 requirements? It is to require the techniques that
10 maximally reduce water pollution. And that is retention of
11 water in new development as opposed to its discharge.

12 Another problem we've highlighted, the permit
13 doesn't comply with the basic requirement in the statute
14 itself to effectively prohibit non-stormwater discharges.

15 And very briefly I'll touch on the issue here,
16 or one example of the issue. And that is that you allow
17 runoff during the dry season from lawns and irrigation.
18 Irrigation water which studies demonstrate are highly
19 polluted.

20 And that's inconsistent with what the act
21 requires. And it's sort of ironic that your peer regional
22 board that covers Southern Orange County, the
23 San Diego Board, has just come out with its draft permit
24 that has stacks of information about how highly polluted
25 those discharges are.

1 And those are discharges that your permit
2 allows with conditions that are, in our view, not
3 acceptable. Those non-stormwater discharges need to be
4 prohibited. The law requires them to be prohibited. And
5 from a policy perspective, we're not going go get to the end
6 result if we continue to ignore these pieces of the puzzle.

7 The final thing I would say is that we could
8 understand, perhaps, a difference of opinion if there had
9 been a compressive examination of the likely pollution
10 reduction of this permit. In other words, if you tell us,
11 "We're not going to do exactly what you want with LID, but
12 we're going to retrofit. We're gonna do a bunch of other
13 things. We are going to show you that we have a reasonable
14 belief, based on science, that we'll be successful. We'll
15 meet those water quality standards." That would be one
16 thing.

17 And perhaps you as a board might think, "Why
18 don't we be more flexible with development, if we know we're
19 going do get there anyway. We're gonna meet our budget.
20 We might spend a little more on a nicer dinner. But we're
21 going to meet the budget, so we'll do it."

22 That's not in front of you. You can look
23 anywhere you want, in the reams of information you've been
24 given and in any comment by any party, and nowhere will you
25 find an estimate of the effectiveness of this permit. And

1 that should trouble you from a policy perspective.

2 Because I would submit, notwithstanding your
3 best intention, you don't know what you're doing. How can
4 you? How can you make a determination when you don't know
5 what the effectiveness of the permit's likely to be?

6 The federal regulations require an estimate of
7 what the proposed program will do in terms of pollution
8 reduction. And we would submit that that's been too long
9 ignored. Not just in this region, but in many other regions
10 and, in deed, in many other places in the country.

11 And we would certainly submit to you that
12 absent that kind of information, it's incumbent on you when
13 you have information about superior approaches that are
14 practicable with the National Association of Home Builders
15 and NRDC, like, those should be in the permit.

16 So what that means is, we would like for you
17 to implement the red line -- which we have copies of if you
18 want, they were submitted with our last set of comments --
19 that shows you what we think should be done with the LID
20 section. Certainly, at minimum, EPA's changes, the small
21 ones -- the two small ones that they've made, should be
22 part of your decision and should not be changed or watered
23 down with the kind of suggestions that you've heard.

24 And we think, at the end of the day, you will
25 have a permit you feel good about which is practicable and

1 much more likely to do the job as necessary than one you
2 saw this morning or the one, with all due respect to my
3 friends in the room, that some others would like you to
4 adopt.

5 With that, I really appreciate the work. I'd
6 also like to thank Mike. We're involved in this kind of
7 process everywhere. I've been in the process and sometimes
8 they start and three years later they're not over.

9 And while we certainly have some respectful
10 disagreements on substance, we think you've done a terrific
11 job in moving it along. Very professional. Very
12 businesslike. I think it makes it a lot easier for
13 everybody when you can actually get, hopefully, to a result
14 as opposed to this constant process.

15 And you should be very appreciative of your
16 staff. I think everyone in the room is.

17 Thank you very much.

18 Garry, you are going to close.

19 MR. BROWN: Hello. My name is Garry Brown,
20 Orange County Coast Keeper.

21 First thing I want to do is kind of echo what
22 David just said about the staff. Our organization for the
23 last decade has worked closely with the Regional Board Staff
24 and built a relationship with them. And it's a relationship
25 we appreciate.

1 And when this came up, which every five years
2 it does, we basically -- in Orange County, a group of us had
3 been talking about this for some time. And in December we
4 came, a small group of us, and asked if we could stop the
5 comment period date of the end of December to, basically,
6 take some time out and maybe change the paradigm.

7 We've had a long success of working with
8 various developers in Orange County. I think at all times
9 we have been somewhat reasonable. And we have a reputation
10 for that. So we have, often, discussions on how we can make
11 this better.

12 And in December, what I felt, personally, was
13 that, you know, we can go through the process again and try
14 to clamp it down some more. And we can probably -- we can
15 guarantee it will be more expensive for developers, more
16 expensive for the city. But can we guarantee the water
17 quality is going to be better on the direction we're going?
18 And the answer is no. I couldn't stand up and say the water
19 quality will be better.

20 So, you know, to me, we need to change the
21 paradigm. How the past permits have gone. And that's what
22 this attempt has been -- to do. And that's why it hasn't
23 got any discussion today.

24 But the section yesterday that was mailed and
25 is on your errata sheet on the master watershed plans. And

1 I think that alleviates a lot of the discussion you have
2 heard this morning and objection.

3 We look at -- how can we change the paradigm of
4 the permit to, you know, make somewhat reasonable, but yet
5 accomplish a higher standard of water quality. And our
6 thought was let's develop a strong permit. Let's take
7 susump, and let's have the 85th percentile. And let's
8 retain that water. And I'm not going go repeat what you
9 have heard a dozen times today. We have to have a strong
10 permit.

11 And then the second -- like the second leg of a
12 three-legged stool. Let's develop watershed master plans.
13 And in the next two years -- and virtually everything
14 Mr. Strecker said in all of the different nuances of
15 Orange County. That if you're in Serrano Creek, we know
16 there's erosion problems. If you're in San Diego Creek, we
17 know where the plumes are. We know other issues. We know
18 TMDLs. The whole point in the watershed master plans is to
19 encapsulate everything that was basically discussed earlier
20 as infeasibility or feasibility.

21 And so what we would like is to proceed with
22 that, have a strong, almost default permit, have, basically,
23 these watershed master plans so nobody can say one rule fits
24 all. Because it will be one rule based on the circumstance
25 and science of that particular watershed. That's the

1 direction we want to go.

2 The third leg of the stool, we want to go
3 online hydromodification modeling with something like UCI.
4 And have online historic rainfall data. The geologic data.

5 The ultimate would be if engineers, when they
6 were designing a project, they go online and pull out all of
7 the historic data, all of the rainfall data, and they would
8 know how to size. And then when their plans go to plan
9 check in the city, the plan checker would go on the same
10 website and validate the information.

11 What we're looking at is a longer, wider vision
12 than this permit. This permit is the first leg in,
13 certainly, the watershed master plan.

14 Where it mandates is the second leg. And down
15 the road, we want to develop the third leg. We think that,
16 one, bottom line, we'll have a much more effective permit.
17 We will have, actually, done significant in drastically
18 improving water quality standards for Orange County.

19 You know, one of the concerns about using the
20 word "infiltration" -- over the years we, as I said, we work
21 with various developers. You have got very responsible
22 developers. We started a relationship with Irvine Company,
23 as you know, in an era of -- through litigation. And that
24 turned into a partnership for developing water quality.

25 And we have touted their work at the

1 Newport Coast on water quality as being the best in the
2 nation. My point is, if Irvine Company -- and what they
3 have already proven they're efforts in water quality. Then
4 you know, we won't have a problem. But not everyone's
5 Irvine Company.

6 You now, MEP, for example. Our frustration
7 with MEP is to the responsible developer, you know, that's
8 fine. To the guy that's on a shoe string and trying to cut
9 every corner he can, MEP translates into let's do the least
10 for the cheapest.

11 My problem with this is that you add
12 filtration, that's the way out. That's where the
13 responsible developers and redevelopers will do what they
14 need to do and do it right. The ones who are trying to
15 skate by and do the least, you know, they're going to look
16 at that and say, "Okay. We'll dig a ditch and throw some
17 plant seeds in it." And that's a vegetative swell, and the
18 runoff will come off. That's the way out. That's our
19 concern.

20 We need to have a strong permit to begin with.
21 And so we certainly would appreciate your deliberations in
22 giving us that.

23 Thank you very much.

24 MS. BESWICK: Thank you.

25 MR. PON TELL: Madam Chair?

1 MS. BESWICK: Yes. Questions?

2 MR. PON TELL: Just two follow-up questions. On the
3 one slide you showed -- I think it was Paul that showed the
4 natural runoff being 7 percent, and LID runoff being zero
5 percent. Is that desirable or is the goal 7 percent?

6 MR. LOUNSBURY: That's under the design storm
7 condition.

8 So the goal there is not necessarily a
9 hydromodification goal, which is more about matching peak
10 flows and durations and what not, which is also in the
11 permit. The goal with the LID provision should be mostly
12 water quality.

13 So in that case, by reducing runoff to zero,
14 you can be sure under the design storm condition, there's no
15 pollution going to receiving water. That's not zero percent
16 runoff overall because we're talking about a design storm
17 scenario. Which, as people have noted, is not
18 necessarily -- or does not take into account all the
19 rainfall in the year. It is less than 95 percent of the
20 rainfall that is captured.

21 MR. PON TELL: Can you say that again?

22 MR. LOUNSBURY: Sure. I think that -- and we've
23 submitted many studies, so we can look through the records
24 and find this exactly.

25 Not all of the rainfall in any given year is

1 captured within the 85th percentile design storm scenario.
2 There will be runoff. Period, if you're just capturing the
3 85th percentile storm and retaining it onsite.

4 So that 7 percent discharge under natural
5 conditions and zero percent discharge under the LID
6 provision doesn't mean that every single site in
7 Orange County will never discharge stormwater during the
8 entire year.

9 Does that clarify?

10 MR. BECKMAN: That's perfect. I just wanted to add,
11 one thing you have to keep in mind is, what is on a natural
12 site and what is on a developed site.

13 The reason it is so important to limit water
14 pollution or the flow of pollution is because once you've
15 developed, it's no longer natural. There are pesticides and
16 herbicides and potentially bacteria and other metals and all
17 the other things you know from your work are in the water in
18 Orange County.

19 The ability to limit the amount of pollution by
20 limiting runoff is critical to the ultimate environmental
21 goal. As Bart said, that's not -- because it is a design
22 storm, it is not all water. You'll still get runoff from
23 the site.

24 Most of the standards for hydromodification
25 that US EPA adopted -- even the ones that are in the federal

1 energy bill that relate to federal sites, one of the
2 newest -- they assume that if you retain, roughly, an inch
3 of rainfall, that's a down payment on the hydromodification
4 requirements.

5 In other words, in order to make that
6 hydromodification graph look like it should, you have to do
7 some runoff. That's generally the way the system, or the
8 standards work. So what we're asking for here is something
9 far less than what other communities are doing.

10 I think that's the point that's really, really
11 important.

12 MR. PON TELL: Just a follow-up question. I guess
13 what I'm confused by, you're comparing an arid community
14 with non-arid community. So capturing an inch of water in a
15 non-arid environment is a fraction of the total. Where
16 capturing an inch of water in an arid environment is
17 100 percent of the total.

18 So I'm just kind of trying to grasp the net
19 effect of making those kinds of comparison and adopting a
20 policy then. If in any of those communities, you know, that
21 one inch was 20 percent of the rainfall that was being
22 captured, and then we were then to apply a 20 percent factor
23 on the capture, it seems to me that might be an equally
24 relevant way to evaluate.

25 MR. BECKMAN: I think there are a couple responses.

1 That's a good question. The way you can normalize the
2 situation is through the design storm. And those
3 communities, notwithstanding whatever -- maybe they have
4 30 inches of rain -- I think your point, right -- and maybe
5 we have 10 inches here. So how do you deal with the
6 question?

7 You deal with it, in part, with the design
8 storm. The requirement in West Virginia, hypothetically,
9 isn't to capture all of the rain they have during a certain
10 month. It is an inch of rain. The standard here is less
11 than that. In any case, it normalizes for the fact that
12 there are different amounts of rainfall in different places.

13 It is, actually, more difficult to accomplish
14 the standard in an area with more rain. Because as
15 Mr. Strecker indicated, if you have a lot of rain, it can
16 be, you know, the ability of soil to evaporate, the ability
17 of systems to capture rain after repeated storms is more
18 challenging than if you have only a few rain storms every
19 year.

20 The other thing I would say, just to complete
21 the answer, is we asked Dr. Horner to look at the questions
22 of these standards that we're holding out to you as an example.
23 And asked the question, is the evaporation rate in those
24 places comparable to Southern California? Because that
25 would be an important thing to consider.

1 If, for example, you couldn't evaporate water,
2 or you couldn't somehow store it, then maybe the standards
3 are not apples to apples. I think is part of what you're
4 asking.

5 That's in our submittal most recently to you.
6 We looked at all of the standards that we have put forward
7 in our comments. And the conclusion, as you can see, is
8 that Southern California is either on average the same as
9 the other communities, or in some cases, is in a lot better
10 situation to deal with the standards that we're advocating.
11 Because of the fact that we get a lot of sun during --
12 between storms in Southern California.

13 We try to look at those apples to apples
14 questions. And we are suggesting to you that this is an
15 apple to apples situation. And, if anything, that supports
16 a stronger standard than you're looking at today.

17 MR. PON TELL: I have two quick questions for staff.

18 One issue was raised about the non-stormwater
19 discharges, to what extent I think it was implied that our
20 requirement did not meet the standard that's required.

21 MR. ADACKAPARA: Our requirements actually are
22 specified in section three of the -- roman numeral section
23 three, that's page 32, and it actually prohibits
24 non-stormwater discharges. And it is consistent with the
25 federal regulations and the Clean Water Act.

1 MR. PON TELL: My second question.

2 There was a question about the, quote, unquote,
3 "Ability to state with some level of certainty with regard
4 to the overall effectiveness of the permit towards achieving
5 the water quality standards."

6 MR. ADACKAPARA: Actually, in the report of waste
7 discharge, that was submitted by the County. They have
8 provided an effective analysis.

9 And in addition to that, Geosyntec, provided by
10 somebody, of all the effectiveness analysis that has been
11 included in the report of waste discharge. And also in
12 other reports that the County has provided.

13 We did not provide a copy of the Geosyntec
14 summary to you because it came in yesterday night. But they
15 did provide that analysis.

16 MR. PON TELL: And based on that analysis --

17 MR. ADACKAPARA: Based on that analysis, the program
18 seems to be effective. But some of the programs could not
19 be -- they could not reach a conclusion about some of the
20 programs that are being implemented. So they are proposing
21 additional programs, additional best management practices.

22 And we are requiring in the permit additional
23 controls so that the program becomes more effective.

24 MR. PON TELL: Thank you.

25 MS. BESWICK: Is that it, Steve?

1 What we're going to do now -- we have had food
2 delivered to the conference room in the back. We're going
3 to have a closed session while we have some nourishment as
4 well. The closed session will be on the item on personnel.

5 So we'll be on a break until 1:30.

6 (Lunch recess)

7 MS. BESWICK: Back in session.

8 What we're going to do -- we have several more
9 folks who would like to offer input. But I think at this
10 point we're going to become a little more constant with our
11 three-minute rule. Yes, Gery said I'm going to get a little
12 heavy-handed.

13 I think the Board members are going to throw me
14 off the floor.

15 And then -- I know there are a couple of people
16 that wanted to add another comment. I'm going to give you a
17 minute or two to do it. I'm going to force the three-minute
18 rule now.

19 So let's see, is Mary Lynn Coffee in the room?

20 There she is. Followed by -- is Matt Yeager
21 still here? I don't see him. I'll put his card underneath.
22 And Jim Fitzpatrick.

23 Go ahead, Mary.

24 MS. COFFEE: Thank you.

25 Good afternoon.

1 I represent the city of Irvine and its division
2 of the Great Park Corporation. And I understand the
3 City of Orange also concurs with these comments.

4 I would like to encourage the Board, as heard
5 before, to clarify this provision C2 of Section 12 because
6 the clarification is really very critical for this permit.

7 We appreciate Mr. Thibeault's clarification
8 that feasibility criteria will be developed to determine
9 when it is feasible to retain runoff onsite versus when that
10 needs to be done somewhere else. It is still important to
11 revise this section or clarify it so biotreatment BMPs are
12 available for use in meeting the standards of Section C.

13 You know, the EPA's language here clarifies
14 that this section, C2, tells you when you have complied with
15 the LID requirements of this permit, and when have you to go
16 to Section E and look for additional mitigation under water
17 quality mitigation credits or other kinds of fee programs to
18 comply.

19 And the clarification that we're requesting
20 would make it clear that biotreatment BMPs are available for
21 use in complying with the standard. And that you don't have
22 to go to section 12E to use those types of BMPs. And they
23 are, in fact, available without a waiver and the offsite
24 mitigation credit programs that are anticipated by
25 Section E.

1 So we encourage you to go ahead with that
2 clarification of the term "capture" to incorporate
3 biotreatment.

4 And we'd also like to point out that that
5 clarification is consistent with the generally accepted
6 scientific and technical definition of LID. We're not
7 asking for an exotic definition of LID.

8 An exotic definition might be one that excluded
9 biotreatment of BMPs. But rather a clarification that the
10 types of LID BMPs that are typically thought of to be LID
11 technologies that are available. And I would note, in addition
12 to the definitions we gave you, all of the guidance for LID
13 BMP implementation that we looked at as part of the
14 stakeholder process, including guidance developed by NRDC
15 for recommendations on how to implement LID BMPs do provide
16 recommendations for implementation of biotreatment BMPs. I
17 don't think it is a radical departure to allow those types
18 of BMPs to be used.

19 And the last point I'd like to make, clarifying
20 that biotreatment is a tool available to meet the standard
21 is also, I think, very important when we're thinking about
22 how protective is the stormwater standard that you're
23 creating -- stormwater control standard you're creating with
24 this section, C2.

25 You've heard from Dr. Strecker that requiring

1 retention of that full water quality volume, the runoff from
2 that 85th percentile storm event, which is roughly
3 equivalent -- I think someone, Mr. Ameri, said that it's
4 roughly equivalent to 95 percent of rainfall. Or I think we
5 also saw in the stakeholder process roughly equivalent to
6 somewhere around the first .9 inch of rain.

7 The required retention of that amount may
8 not -- may be, actually, less protective of the water
9 quality than allowing some of that to be treated via
10 biotreatment. Because in this region, a semi-arid region,
11 where we get back-to-back storm patterns, you may end up
12 with discharge of untreated water much more frequently. And
13 he also noted that it is critical to allow biotreatment
14 because anything else would result in a change in the
15 natural water balance when you take into account ground
16 water and evapotranspiration.

17 With that clarification, we support this
18 permit. It is a tough permit. It has 25 to 30 new
19 requirements, programs, et cetera. But that water quality
20 is critical in Orange County. We support the permit with
21 that clarification.

22 Also, I want to indicate that we highly support
23 the master plan process that was set forth in the errata
24 sheet today. And look forward to participating in that
25 along with Coast Keeper and the other permittees.

1 Thank you.

2 MS. BESWICK: Thank you.

3 For those of you who just walked into the room.
4 Since we have reconvened, I'm enforcing the three-minute
5 rule. And I'd really appreciate it if we would bring up new
6 points at this point rather than reviewing things discussed
7 in detail over the last few minutes.

8 Gene Estrada. Is Larry McKenney still here?

9 Larry, you will follow, then.

10 MR. ESTRADA: Good morning, Madam Chair, board
11 members.

12 I will keep my comments brief.

13 I thought we were going to go ahead and fairly
14 adopt the permit today. But one of the comments I did want
15 to make was that on the errata sheet -- those were the
16 changes for the implementation of an approval of water
17 quality management plans.

18 In the errata sheet we seem to have made a
19 change that, to me, is fairly significant and would affect
20 some of the projects. And that is the implementation as to
21 when we actually are required to implement LID.

22 It seems that there's no provision right now to
23 allow projects that have been approved through the cities
24 either through the planning process or discretionary
25 permits. There was language there previously. And that

1 language has been deleted now.

2 I'm concerned about what we would do for
3 projects that are already in place and have been approved by
4 the City, but don't have approved water quality management
5 plans.

6 For instance, they have approved parcel or
7 tentative maps. And to go back and have to go back and now
8 have to redo the plans for implementation of low impact or
9 hydromodifications is going to be very difficult to do. And
10 something we shouldn't have to do.

11 MS. BESWICK: Good point. Thank you.

12 Larry, followed by -- did Matt come back in? I
13 didn't see him.

14 MR. MC KENNEY: Good afternoon.

15 I'm Larry McKenney. I work for
16 RBF Consultanting. I was asked by Lennar to participate in
17 the stakeholder group meetings with regard to this permit.
18 And Lennar, of course, is doing the Heritage Field's Great
19 Park Neighborhood's Development at the Old El Toro site. So
20 it is a large development in this permit area.

21 I think the first thing I would say is that
22 Lennar probably sees a lot of things in this permit that
23 gives them a lot of concern and pause. There are a lot of
24 things in this permit they don't like, even though they want
25 to do the right thing.

1 However, we believed in the stakeholder group
2 that we were reaching consensus on a lot of issues and
3 reaching a mutually acceptable conclusion. And so we're
4 really not happy with some of the proposed changes to the
5 permit language today. And we hope that the permit does go
6 through and get adopted.

7 MS. BESWICK: You're talking about today's language
8 changes?

9 MR. MC KENNEY: And some things suggested in speaker
10 comments today to go even beyond that.

11 MS. BESWICK: But none of that is on the table at the
12 moment.

13 MR. MC KENNEY: I did mention two things. Not new
14 things, but I wanted to add a twist.

15 MS. BESWICK: You're not playing along.

16 MR. MC KENNEY: One is just with regard to the
17 inclusion of biofiltration as a part of, sort of the first
18 tier of --

19 MS. BESWICK: We got that. We've got that. Next.

20 MR. MC KENNEY: I want to suggest, in lieu of
21 Garry Brown's concern, that that be viewed as an out for
22 developers. Certainly, there's no problem with subjecting
23 that to design standards or something so that it's clear
24 what that is. The County can develop that as part of its
25 implementation plan.

1 And then the last thing I want to mention,
2 there are provisions that are in the permit that
3 Paul Singarella referred to as the off-ramps -- that are in
4 Section 7 now -- that allow for the implementation of these
5 same kinds of LID approaches on a regional scale if it's not
6 appropriate or feasible to do them at a site scale.

7 And I think there's concern now, with some
8 changes in the language that occurred, we may have lost the
9 ability to go to that alternative without going through EO
10 waiver process. I just wanted to note, I think that that's
11 a very valuable and important part of the permit.

12 It actually was Richard Horner's suggestion to
13 include that kind of an approach in the permit. And we
14 develop it and implemented it as part of the stakeholder
15 group. And I'm not sure what the effect of the language is
16 now.

17 I wanted some clarification that we still can
18 use that kind of larger regional approach once we've done
19 what we can do onsite without going through a waiver
20 process.

21 MS. BESWICK: Did you see something in the errata
22 or -- that would indicate to you that the change --

23 MR. MC KENNEY: I'm just trying to understand the
24 paragraph 2 that's up here as it's rewritten now. I just
25 want to make sure -- I may be completely wrong. I just

1 want to make sure we don't have to do everything on site
2 and then go to a waiver.

3 MS. BESWICK: Remember, this is not adopted. This
4 still has to be discussed. I don't see where that would
5 really change the EO's authority in this.

6 Good point.

7 MR. MC KENNEY: Something for you to consider in your
8 discussions. I'd like to be able to preserve the Section 7
9 regional alternatives, once we've done what we can do
10 onsite.

11 Thank you very much.

12 MS. BESWICK: Thank you.

13 Is Jim Fitzpatrick here? And Irwin Haydock?

14 MR. FITZPATRICK: Thank you.

15 My name is Jim Fitzpatrick.

16 Hello, again. Happy Earth Day.

17 I wanted to introduce a new concept called
18 Low Impact Car Wash Standards.

19 First of all, thank you to the permit writers.
20 I appreciate the dialing up to this state. I did pass out
21 some information. Mike, has the Board received that?

22 MR. ADACKAPARA: Yeah.

23 MS. BESWICK: Yeah, we did get it.

24 MR. FITZPATRICK: Great.

25 There's an opportunity here to prevent

1 pollution and contaminants from the mobile car washing and
2 detailing. And it's very simple. Require these businesses
3 to operate to the same standards as a commercial car wash.
4 Because that's what they are.

5 I operated in the City of Santa Ana. And I went
6 through a rigorous one-year process. I had to demonstrate
7 how I was going to be handling the waste water.

8 Pronto Wash is the planet leader in hand car
9 wash and detailing. What makes us unique is we get a car
10 clean with one pint of water and don't create any runoff.

11 Yet, when I say I'm mobile in the same city,
12 unless I'm a massage parlor or something like that, with,
13 often, \$25 I can receive a permit to operate within the
14 city. And I don't have to go through the same process.

15 Although, in this permit I do see there's a
16 pilot program. I don't see any standards that materially
17 change the BMPs from what exist right now. And right now --
18 let's take the two worst case scenarios: Cleaning rims and
19 cleaning engines.

20 If you go up to any detailer and say, "I'm
21 going to sell my car." As sure as the sun will rise
22 tomorrow, you'll get up-sold to an engine detail, where they
23 spray caustic degreasers -- spray all that to the ground,
24 put a dressing on. Well, all that contaminate and pollution
25 is now sitting on the ground.

1 The way the current permit reads -- the
2 interpretation by the County of Orange, who is the permittee
3 that directs the co-permittees to the cities. They look at
4 that that says, if that water does not enter the public
5 right of way, no harm, no foul.

6 And so as proof that runoff from car washes do
7 create issues, the International Car Wash Association has
8 published the Car Wash Runoff and Effluence Study in
9 Puget Sound that offers the facts and data it does kill
10 fish.

11 So what I would recommend, then, is looking at
12 cities outside of Orange County. I'm so disappointed that I
13 operate primarily here in Orange County and I don't have the
14 engagement of the cities and the counties here.

15 If you look at the City of Calabasas -- a very
16 small city that's going through the same financial distress
17 that all these other cities are. They do have a process
18 where you do have to come to City Hall. And it is a zero
19 discharge standard. And that's what I'm advocating, is the
20 standard be to a zero discharge. Not, if the water doesn't
21 leave the property, no harm, no foul.

22 When you look at this, I believe it is
23 reasonable. Because not only is Calabasas, but the
24 City of Oxnard. And the State Water Board is getting much
25 more active on this topic than I'm seeing here in

1 Orange County -- both North and South Orange County.

2 Also, the City of Vista, we went through --
3 they invited us in to test their standard and their process.
4 But they also have a zero discharge. Then you look at the
5 People's Republic of Santa Monica or Pasadena, and they've
6 taken extraordinary measures on this subject. And I'm not
7 seeing that here from the County of Orange.

8 So it's reasonable in a small city like
9 Calabasas to have between eight and ten people from the
10 industry who have been able to satisfy these standards of
11 zero discharge. It is achievable.

12 And what I ask the Board to do is be a little
13 more prescriptive to staff because there's nothing in this
14 permit right now, other than to go through the pilot
15 program, as to what you're intentions are for creating
16 pollution through this industry.

17 So that would be my request, that the Board
18 give direction to Staff to set the standard as a commercial
19 car wash in a zero discharge environment.

20 Thank you for your time.

21 MS. BESWICK: Great. Thank you.

22 Is Irwin here?

23 MR. HAYDOCK: Yes, ma'am.

24 Thank you very much.

25 My name is Irwin Haydock. I'm a resident of

1 Fountain Valley. And I came here today to speak about item
2 10, which was on the consent council. So it got passed
3 before I had a chance to speak about it.

4 I had been sitting here listening all morning
5 to the wonderful conversations. And it reminds me of my
6 successful career of 25 years with the LA County Sanitation
7 Districts and Orange County Sanitation Districts, avoiding
8 the rules and requirements for the 301H Program. And
9 negotiating successfully until I left both agencies when
10 they then had to go to full secondary treatment.

11 As I aged, I found that wasn't a bad thing to
12 do. In fact, the Orange County Sanitation District, which's
13 well on its way to secondary treatment, is now passing it's
14 clean water over to the Orange County Water District, and we
15 are reclaiming 70 million gallons a day of fresh water.
16 That seems to fit with my background which is a PhD in
17 ecology.

18 And I'm concerned about, now, in my role as a
19 retired person, I'm an advisor to the Newport Bay Naturalist
20 and Friends, and we're trying to develop the watershed
21 management program. And I would second what Garry said
22 about watershed management.

23 And the state seems to have that as a mantra
24 now where we would use collaborative, adaptive management
25 with eco-system based principles to develop full scale plans

1 for each watershed that makes sense; that are systematic,
2 that are sustainable, and are the right thing to do.

3 I have to cut to the chase because you've
4 limited me to three minutes.

5 And my point is we now have Marine Life
6 Protection Act process going on on the coastal zone. We
7 have ASBSs that you regulate, which they complain about,
8 well, you can't have discharges in them and so on. And we
9 have watersheds that have TMDLs.

10 What I want is a system that allows us to go
11 from the pines to the palms, to do all the right things.
12 And I think the way to do that -- I read last night in
13 Isaac Newton -- James Glick wrote a biography about him.
14 And he says this, "The Aristotelian cannon enshrines
15 systemization and rigor, categories and rules. It formed an
16 edifice of reason, knowledge about knowledge, supplemented
17 by ancient poets and medieval evil divines. It was a complete
18 education which scarcely changed from generation to
19 generation.

20 Newton began by reading closely, but not
21 finishing, the Organon and the Nicobanion ethics," in
22 parentheses, "for the things we have to learn before we can
23 do them, we learn by doing them."

24 And I really liked what the beginning speaker
25 said today from Lake Forest. I don't like it all, but I

1 think I want you to move ahead with it. And we'll fix it as
2 we go along. Remember, in making the policies, you revisit
3 them over and over and over again.

4 Thank you very much.

5 MS. BESWICK: Thank you very much.

6 And did Matt Yeager come back? There he is.
7 You came too far not to be able to speak.

8 MR. YEAGER: Thank you, Madam Chair and members of
9 the Board for opportunity to address you today.

10 I'm here on behalf of the San Bernardino County
11 Stormwater Program. And there are 16 cities in the valley
12 in the Santa Ana watershed and county and the flood control
13 district of the permittees.

14 Similar to what Jason Uhley told you, this
15 isn't our permit. We understand that. We have been
16 watching this permit along with the South Orange County
17 permit and Ventura permit and Bay area permit that's going
18 on up there because it will impact what happens to our
19 permit. And for this reason I believe it is the next one in
20 the queue for MS4 permits.

21 And, you know, we appreciate all the staff
22 time, discussion that's taken place. A lot of -- we've
23 learned a lot in this process. And we'll be in a better
24 position to do our permit than Orange County was to start
25 with.

1 What I ask is that we be afforded the same
2 opportunity to start from our ROWD, that was submitted back
3 in '06, to -- we spent a year developing our ROWD with input
4 from members, from staff members. And we would like to not
5 discard that effort. We'd like to be able to use that still
6 and proceed from that as a starting point. Rather than
7 taking a look at all the Orange County language and using
8 that as our framework and a template. Which is what our
9 permittees, the city managers, city engineers are a little
10 afraid of. We're going to be given that language and
11 have to live with it. Because it will now become MEP for
12 us.

13 That's all I really wanted to say. Hopefully
14 you can afford a little staff time for us, too.

15 MS. BESWICK: Thank you, Matt.

16 Our track record is pretty good. I think you
17 can trust us on this.

18 I'm out of cards. I know at least one person
19 wanted to recommend. And I said I would give him a minute
20 to -- yes.

21 Oh, Mark hasn't had a chance to speak yet.

22 I'm sorry. I'm confusing you. If you don't
23 mind waiting.

24 MR. RECUPERO: Madam Chair, members of the Board.

25 Mike Recupero. I apologize for our clumsy

1 dance. This is a regulated community that looks at words
2 and meaning really careful. We have spent the last six
3 months hashing out this permit down to the word. So when we
4 showed up this morning and the word changes, it made us
5 uncomfortable, the fact we didn't understand what it means.
6 Made us essentially go to pieces.

7 So with that in mind, if the Board is going to
8 consider this language, I just ask for maybe a clarification
9 of a few things. The first of which is whether or not this
10 language changes the feasibility analysis. The sentence is
11 stricken up there. If that's true, or if this is going to
12 be our permit language, what does that mean? And I think
13 that's important for the regulated community to know.

14 Number two, what is the threshold of the
15 showing of feasibility? And who is the trier of fact on
16 that? If the City of Anaheim wants to put in a parking lot
17 or redo -- redevelop a portion of a library, are we actually
18 doing a feasibility analysis that shows that infiltration
19 cannot be done? And once that's done, are we going to a
20 waiver hearing at the Board? And is every public works
21 project doing that? Is every homeowner doing that when
22 they're required to do a WQMB? Is every commercial facility
23 or an Applebee's expected to go to a waiver hearing?

24 I don't know what the answer is, but I know
25 it's a large concern because simply for the volume of the

1 project that gets done.

2 The third point is if, indeed, "capture" is
3 going to be defined to include bioinfiltration, or
4 biotreatment, biofiltration, as we said time and time again,
5 I think there's a greater level of comfort on the regulated
6 community side.

7 And lastly, we support the Orange County Water
8 District separation distance of ten feet between the bottom
9 of the infiltration device and the water table.

10 Thank you for your time.

11 MS. BESWICK: Thank you. Good points. And you were
12 very succinct. Thank you.

13 UNIDENTIFIED: Chair Beswick, members of the Board,
14 one minute. And I promise Paul will be entertaining.

15 MR. SINGARELA: Paul Singarela for Pickwick.

16 As you go into these deliberations, the
17 issue from our perspective on LID is biotreatment. Is
18 biotreatment going to be part of the compliance, part of
19 the standard, part of what you define as MEP? Or is
20 biotreatment something we have to earn only by showing
21 technical feasibility and getting some waiver?

22 We don't want to go over in waiver land or
23 getting a variance. Biotreatment needs to be part of
24 baseline compliance. I ask you to deliberate on that,
25 and hopefully resolve that issue today.

1 Thank you.

2 MS. BESWICK: That was good. Very quick. I think
3 that's -- unless I'm -- one minute.

4 MR. BOON: Richard Boon, County of Orange.

5 I need to have the last word.

6 At 9:00 o'clock this morning, the
7 County of Orange, all of the permittee cities, I think were
8 enthusiastic and supported adoption. And that included the
9 errata sheet and all the additional provisions in the errata
10 sheet, including, I think, what must be a rarity for a
11 regulated entity, asking for something that was previously
12 optional be made mandatory, the watershed action planning
13 process.

14 With regard to the language that you have
15 before you, I think we would be prepared -- and I think we
16 could very quickly offer you some alternative language on
17 the revision to C1. Perhaps that establishes a point in
18 time, 18 months or 24 months, after this process of trying
19 to come up with a revised model WQMB such that the program
20 would preassume that all projects are feasible, unless we've
21 come up with some criteria for determining there are cases
22 of infeasibility.

23 With regard to C2, when Haydock quoted Newton,
24 I would refer to the comic strip in Fraz in the LA Times.

25 MS. BESWICK: Ten seconds.

1 MR. BOON: Ten seconds.

2 There are simple answers to complex problems
3 that are generally wrong. Mike, I think, put together a
4 permit that is a swiss watch in its sophistication and
5 interconnectedness. And we would ask the revision to C2 be
6 struck.

7 MS. BESWICK: Thank you.

8 Okay. I think we're at the point where we can,
9 at least, stop, if not close, the public hearing. And I'm
10 going to turn to the Board members. But as I do that, I'm
11 going to play on what Richard just said. And that is he
12 tells us that people came here today, and we heard all day
13 long, people came here enthused about this permit, ready to
14 support it. It was like -- I like the swiss watch analogy.
15 Way to go, Mike -- and then we ran up against something new
16 to everyone in room. Not just to you, but to us.

17 And so something that we might consider -- I'm
18 not suggesting -- just as we begin our debate, what we might
19 consider is -- let's look at the good parts of this. See if
20 we can come to terms on the pieces that everyone's in
21 accordance with. But, perhaps, an option could be to leave
22 the public hearing open on just the two items in question
23 until our next meeting, which would be about 30 days, I
24 think. May 22nd, close. Perhaps giving time for people to
25 submit comments.

1 And we could keep the public hearing open just
2 to those two points for our meeting in May. And if there
3 were still issues about it, we could address them then.
4 That's one suggestion as we begin discussion.

5 MR. RUH: Madam Chair, I think that's an excellent
6 suggestion. We had concurrence on so much of this already.
7 We could move forward on that and do what any prudent --
8 even a business would do -- the areas we have some question,
9 let's revisit it. Keep it open. I think that's a very fair
10 way to do this.

11 MR. AMERI: Ditto. I agree. I think we should
12 limit the next hearing to specific items which essentially
13 90 percent, I think, is going to be items 12C1 and C2.

14 But I have a couple other points I'd like for
15 consideration before now and next month.

16 One of them is Item E1 which essentially gives
17 the EO too much power. If the feasibility -- if one of the
18 LID procedures is not feasible, at the discretion of the EO
19 to make the decision whether another alternative is feasible
20 or not. And if the applicant doesn't agree with them, guess
21 where the decision goes to? State. It never comes to us.
22 And I totally disagree with that.

23 We are the body that makes the decision. We
24 are the one that approved the permit. We are giving our EO
25 the authority to make that decision. And if the applicant

1 disagrees with his decision, we should be the body that --
2 to consider that Applicant's, you know, appeal. Which is in
3 agreement with what David Beckman said, basically, a hundred
4 percent.

5 I do believe that we really need to have a very
6 clear, concise definition of what LID really is. None of us
7 really knows what it really includes. Is it the three items
8 of infiltration, evapotranspiration, and unused harvesting?
9 Does it also include a fourth element which is filtration
10 and treatment and release?

11 And I see this thing from one of the speakers
12 that very clearly indicates that the US EPA and the states
13 criterias (sic) mention filters as one of the four elements
14 of LID. Then what I hear are arguments that that's not
15 true. EPA has other definitions.

16 I'm not comfortable with what it is. The staff
17 needs to really convince me either that 100 percent filter
18 is the fourth element in LID, or convince me that it is not.
19 Or come and tell me it is in their research 75 percent of
20 the time it is in there, 25 percent isn't. I need to be
21 very, very, very clear whether there has been practice or
22 not.

23 Third is something that Steve mentioned, the
24 85th percentile event. He brought up a real good point.
25 What is the 85th percentile? In Seattle it is probably

1 5, 10 percent of the rain events that happen over the year.
2 Where is it in Orange County? 80 percent of the time?
3 90 percent of the time? Some said 95 percent of the time.
4 In other words, we build storm drains in development. We
5 spend all of that money. 95 percent of the time it is dry
6 when it rains. 5 percent of the time, when you have a
7 little bit of rain over one and a half inch or whatever,
8 goes into your storm drain. Why do you build storm drains
9 then? Let's eliminate building storm drains in new
10 development and say onsite retention. Period. These are
11 issues I have.

12 I agreed with you that 90 percent of the
13 discussion should be concentrated on items 12C1 and C2. But
14 I would like to be clear on these other items before I'm
15 ready to express an opinion.

16 MS. BESWICK: Richard?

17 MR. FRESCHI: I concur with your point. And I also
18 agree with Fred, that's delineated in footnote number 55.

19 I think, notwithstanding the fact if it is
20 turned down by this Board it goes to the state, I would
21 rather have it -- if it is turned down by our EO, it comes
22 to our board, and we make the decision. Because if that's
23 the case, and it is turned down by the EO, then the company
24 or the organization has to spend a whole lot of time and lot
25 of effort and lot of money going up and arguing it in

1 Sacramento. And I ask us to consider that provision.

2 That's it.

3 MS. BESWICK: Steve, anything you want to add?

4 MR. PON TELL: Sure.

5 MS. BESWICK: Any reactions to --

6 MR. PON TELL: Well, first of all, let me confirm --

7 so Gery is in section E1. Is that the case, if there's an
8 EO decision that it would be appealed directly to the State?

9 MR. THIBEAULT: Yes.

10 MR. PON TELL: So we can modify that to say that if
11 someone would appeal the EO decision, it can be appealed to
12 our Board?

13 MR. THIBEAULT: Yeah. And you can also modify it to
14 bring the whole decision back to the Board.

15 MR. AMERI: We don't want that.

16 MR. THIBEAULT: And I would recommend that you do
17 that instead of having the EO review it.

18 MR. PON TELL: I think we should at least, maybe, use
19 the standard by which we review septic tank appeals. So at
20 least have Staff have that level of review, to the extent it
21 is necessary to have a board have a step in that process.

22 I found a lot of the conversation very
23 interesting. I'm sitting here, Madam Chair, do we really
24 need to keep the public hearing open on these, essentially,
25 two items? Maybe for form, it may not be a bad idea,

1 because there were suggestions of additional alternative
2 language that might be injected into it.

3 I do also agree this is actually -- having the
4 opportunity to review it -- I viewed it as a very well
5 crafted and balanced approach to what can be incredibly
6 complicated issues. Congratulations to the process and the
7 working group that invested the time in this.

8 Just some conceptual thoughts and especially,
9 maybe with regard to San Bernardino and Riverside, some
10 things to think about. I think the 12-month process for,
11 you know, developing some more specific plans with low
12 impact development is helpful to everybody.

13 There's a concern in the back of my mind about
14 jumping on to a solution du jour that says, today -- and I
15 don't know if I captured it exactly right -- the concept of
16 capturing and mitigating runoff on a lot-by-lot basis being
17 the best solution that may or may not be the case. I think
18 there can be arguments for logical, neighborhood, local,
19 community based, regional, subregional solutions for
20 different types of activity. And to the extent possible, I
21 think that the planning process in -- as it articulates in
22 this permit -- should allow that level of flexibility and
23 creativity in thought with regard to what may happen in any
24 particular incident and what may be the best solution.

25 I am always curious when standards are set with

1 regards to modifications of parcels up to 5,000 square feet
2 or 10,000 square feet or 100,000 square feet, because my
3 question always is, why not 98? Why not 105? Where is the
4 rational and logical way of thinking about it?

5 As LID moves forward, I think good planning is
6 going to require an increasing amount of thinking about the
7 system solutions, about how development occurs not just on
8 lot-by-lot or project-by-project bases, but within the
9 context of the community.

10 The other question that always comes to mind
11 is -- in using Orange County specifically as an example --
12 what percentage of activity are we actually talking about
13 since a significant percentage of Orange County is already
14 built out?

15 So to the extent -- I think I heard someone
16 say, the only way we are going to solve the water quality
17 challenges is through low impact development. Well, you're
18 talking about one, two, three percent of the entire county,
19 then, is going to save the entire future.

20 So I think there is a disproportionate weight
21 given to some solutions when it may be that a subregional or
22 neighborhood or community solution can actually capture and
23 deal with the currently built environment, which is the
24 primary generator of runoff and all of the various
25 pollutants we're concerned about. As opposed to the small

1 fraction of new development that's going to be occurring in
2 Orange County over the next decade or two, over the next year
3 or five.

4 I seriously doubt that there will be a lot of
5 new development anywhere for quite a while. I hesitate to
6 put our entire future, essentially, on the bubble of LID. I
7 hope there would be some other solutions articulated in the
8 permit that would be able to achieve our goals.

9 With regard to some specific recommendations,
10 I see no reason not to include the term "biofilter" with
11 regard to the catch-and-release -- whatever the right
12 characterization would be. I assume staff could come up
13 with the appropriate term.

14 I would also see that, you know, the ten-foot
15 standard with regard to the separation -- and I do
16 appreciate the ground water purveyors having an interest.
17 And it would seem to me they would have a significant input
18 into assessing what they believe would be a safety factor
19 with regard to water quality.

20 I also don't necessarily see anything wrong
21 with changing in C Number 3, essentially, the sentence that
22 talks about the design -- instead of "The design strategy
23 shall be to maintain or replicate," "the design preference
24 shall be to maintain or replicate."

25 And so, once again, all going back to the

1 intent of, we want to do the best job possible. We want to
2 use the best science possible. We want to devote our
3 recourses to the best, most cost effective solutions that
4 then perpetuate, essentially, clean water.

5 And my final comment would be, I would hope --
6 it is kind of interesting, reading through the cost benefit
7 analysis on the permit -- which, I believe, was about a page
8 and a half -- with a primary emphasis on looking at the
9 ocean water, the beaches, the use of the beaches, et cetera,
10 as a primary benefit and tying that to tourism and tying
11 that to tourism dollars. It would be my strong suggestion
12 if we can, in any way, beef up cost benefit analysis -- if
13 we're going to be putting more energy towards smaller and
14 smaller solutions down to a lot-based solution, per se, then
15 we may need to add additional elements in order to actually
16 have a cost benefit analysis of the permit that's being
17 proposed.

18 With that, Madam Chairman, I would be prepared
19 to vote today. I'd be prepared to vote in a month. It is
20 to your pleasure.

21 MS. BESWICK: I want to give Bill a chance to
22 comment.

23 MR. AMERI: Excuse me. I have one more comment.

24 MS. BESWICK: Could Bill comment before? And then I
25 said Gery had a comment. I will give everybody a shot. And

1 I might comment.

2 MR. RUH: Other than the two items we have presented
3 before us, which seem to be the point of contention, I
4 believe we've gone through in good faith, everybody with the
5 stakeholder process.

6 I believe the stakeholder process was designed
7 to reach a consensus as best we could with everyone at the
8 table in agreement. Not everyone is going to get every
9 single item they want. But we come together in reason.

10 I see no problem going forward with it. Other
11 than these two items, keeping them for the next meeting, to
12 move forward with it just as it has been presented. Because
13 that's what the stakeholders agreed to.

14 And to put other things in and change it, means
15 we have to go back to another -- open the whole thing up.
16 We've had agreement on consensus. The stakeholders worked
17 this out. Other than these two items before us, which we
18 can continue and let the stakeholders work with that, I
19 think we need to go forward in good faith with what they've
20 already worked on.

21 Thank you.

22 MS. BESWICK: I asked Gery -- I'm sorry. Did you
23 want --

24 MS. MC CHESNEY: I had a few comments to make on the
25 process.

1 MS. BESWICK: Great. Thank you. Please.

2 MS. MC CHESNEY: Now?

3 MS. BESWICK: You want to do it?

4 MS. MC CHESNEY: Sure.

5 One thing is that because it is an MPDS permit,
6 it is required that there be response to all comments. I
7 want to check with Staff if any comments today are new
8 comments that weren't responded to in the record. And to --
9 if you postpone -- if you continue the hearing, then they
10 can be responded in writing and provided later. If you
11 don't continue the hearing, then we need to make sure
12 they're responded to today.

13 The other thing is on the issue -- if you want
14 to continue the hearing, I would suggest that if you want to
15 have a future opportunity to consider the two items,
16 continue the hearing and not vote today.

17 The reason is you're going to have two dates by
18 which if anyone wants to file a petition to the state board,
19 there will be two dates to do that and create a cumbersome
20 process. But what you could do is say that you closed the
21 public hearing now. You're providing an opportunity only to
22 submit additional written comments on those items. And set
23 a date certain by which that happens. So you're not, at the
24 last minute, getting the comments, and then it's only on
25 that.

1 So when you come back, again, you can allow
2 additional public comment if needed on those items, but not
3 review the whole hearing. And then you can vote on that.

4 MS. BESWICK: Thank you. Those are important.

5 Mr. Ameri.

6 MR. AMERI: These are just comments we may not want
7 to include to be discussed later on and with just those two
8 items next hearing, I have no problem with that. Besides
9 what I already said. There are three other technical
10 issues.

11 I don't see the logic behind changing the
12 5 percent EIA from a metric that we had to a volume capture
13 metric based on the design volume. I am a little bit of a
14 technical guy, but it is above my head.

15 MS. BESWICK: I asked Gery to address some of the
16 things.

17 MR. AMERI: Number two, I don't see any problem with
18 really keeping the ten-foot for the water table instead of
19 the five.

20 And since it hasn't been brought up, I'm
21 assuming all the stakeholders are in agreement, and the
22 county, especially, is in agreement on the timeline.
23 Because we have a lot of timelines here -- with 18 months
24 within this. I hope this is all agreeable to everybody.
25 And if it is all agreeable to -- that item should not be

1 included in the next, you know, focused hearing.

2 But I just wanted to make sure the time tables
3 are acceptable. I didn't hear anything objectionable to
4 that. So I think that, kind of, concludes my comments.

5 MS. BESWICK: Okay. I thought I asked Gery to
6 address some of these things. Just a little bit of clarity.
7 And then I'll keep the remarks to the end.

8 Gery?

9 MR. THIBEAULT: Yes. Thank you, Madam Chair. There
10 are a few things. And I guess I can go backwards from Fritz
11 to Steve.

12 The ten percent separation, Staff agrees with
13 that. I recommend that be changed from five-foot to 10-foot
14 separation.

15 The logic of changing from the 5 percent EIA to
16 the 85th percentile is something that was worked out with
17 all the stakeholders. This isn't something -- this is not
18 prescriptive. It is an agreement that was worked out during
19 all the stakeholder meetings that we had. I can go into it
20 again --

21 MR. AMERI: No. If it is agreed to, I don't care.

22 MR. THIBEAULT: One of the things that Mr. PonTell
23 mentioned was about the design changing in C3, the fifth
24 line, where we talked about a design strategy. And Steve
25 was looking for preference.

1 It is more than a preference; it is a goal. It
2 is something that's being sought after. And so it is -- I
3 was hoping he would use a higher level of strength word than
4 "preference" because it is something we would really like to
5 see implemented. And so if "strategy" is not good, perhaps
6 "goal" would be another option.

7 MR. PON TELL: Yeah, I would agree with "goal."

8 MR. THIBEAULT: Great.

9 With the lot-by-lot evaluation, we're not sure
10 where this comes from. There's nothing in the permit that
11 requires anything lot-by-lot. If somebody has an approach
12 that is at regional or in -- neighborhood oriented or
13 whatever, and doesn't violate the prohibition on discharging
14 pollutants to waters in the US. Which is always, like, the
15 number one factor that prohibits long-range regional
16 treatment from being implemented. Then there's nothing that
17 says that kind of approach couldn't work.

18 You could capture and percolate everything.
19 That's sort of what, like, the Inland Empire Utility Agency
20 and some of the others are doing with large scale stormwater
21 capture programs that they're implementing. I don't think
22 there's anything in this permit that would ever prohibit
23 anyone from looking at a larger scale perspective.

24 MR. PON TELL: I was quoting, I believe, the gentleman
25 from Orange County who talked about potential concern about

1 the disaggregation of runoff mitigation to lot-by-lot
2 treatment. I think he said something like that.

3 My read of the permit is it allows for a
4 neighborhood, subregional, whatever the case may be,
5 solution. And if I was a local jurisdiction attempting to
6 cause a certain amount of development, or economic
7 development to occur, I would probably want to develop a
8 multi-entity resolution that can help to create walkable
9 water ways and path ways and whatever else the case may be
10 and accomplish the mitigation.

11 MR. THIBEAULT: That's something that Staff tried to
12 include in the flexibility in the permit.

13 With respect to biotreatment. Staff doesn't
14 have any objection to including that, these words into the
15 two places. Page 55, number 7: If site conditions do not
16 permit infiltration, harvesting and reuse. And then we
17 would add biotreatment, comma.

18 And then in C2, on the screen. The third line
19 after evapotranspire, comma, biotreat, comma, or capture.
20 There's no reason why that couldn't be included.

21 With respect to having the process come back to
22 the Board on appeal as opposed to just to the EO and then to
23 the State Board. You can do it any way you'd like with
24 respect to that.

25 And, typically, when there would be a

1 disagreement, it would be at a technical level. It would be,
2 you know, engineering versus policy kinds of argument. And
3 we can certainly bring those back to the Board. And then
4 the next appeal would be to the State Board. And then --
5 what we're trying to do is make the process be a little
6 easier to be approved.

7 But there's no reason it can't come back to the
8 Board. It is going to take a little longer. If you
9 intended 18 months for this to be done, that may be not
10 enough, if it is going to need Board approval. We may have
11 to give a little longer. Maybe --

12 MR. AMERI: My reason for that was that, really, we
13 want to have a test of the implementation of this permit
14 through our staff. We want to hear if there are -- I mean,
15 yeah, we are not all technical and all that. But we have
16 had a lot of technical presentations here that we made
17 decision on, as far as ACLs and stuff like that what you
18 show very technical, complicated stuff. I'm not afraid of
19 hearing someone come in and presenting a design issue and
20 for us to hear and make policy decision.

21 MR. ADACKAPARA: I think the intent was, actually,
22 you know, if they were a noncontroversial issue, it doesn't
23 have to come back to the Board. That was the main intent.

24 But if there are controversial issues that
25 come up during the public notification process -- if you

1 look at footnote 55 on page 53, it actually provides two
2 options. Either the EO can approve it or the regional board
3 can approve it.

4 MR. AMERI: No. I think it has to be specific. If
5 there is no agreement between the Applicant and the EO on
6 the feasibility of doing something beyond the LID, it should
7 be appealed to the Board. Period. Like we do with ACLs;
8 right?

9 MR. THIBEAULT: And then with respect to the
10 threshold question that was raised earlier. Our response to
11 that would be, the threshold should be identified as part of
12 the feasibility study. The threshold should be proposed as
13 part of the feasibility study. And then that proposal, the
14 way it's looking now, would come back to the Board. And you
15 would identify whether the proposed threshold feasibility is
16 adequate. So good luck with that, by the way.

17 Madam Chair; if you do leave the public hearing
18 open for C1 and C2, it should be left open for all of C --
19 if we have changes we need to do a consistency review of the
20 permit.

21 MS. BESWICK: Make sure it all --

22 MR. THIBEAULT: We might need to make changes, just
23 for continuity.

24 MR. RUH: Would May 22nd be enough?

25 MS. BESWICK: Yes, it will.

1 MR. RUH: Maybe I'll take a stab at a motion.

2 MS. BESWICK: Can I have comment?

3 MR. RUH: Sorry.

4 MS. BESWICK: The reason I want to comment -- I want
5 to start by saying, I'm always amazed and proud and always
6 enjoy touting our region when we go to other meetings. Our
7 stakeholders are an amazing group. They are so willing to
8 give tremendous amount time. And have such a sincere
9 approach to the process. And I think that also speaks
10 highly of our staff. Because it means they believe they'll
11 be treated ethically and fairly by the staff as well.

12 I guess my comments are going to come from the
13 standpoint, I respect the process around here. And I
14 also -- some of my fellow board members heard me say, I'm
15 loathe to rewrite things at the Board table because --
16 especially here, when I think I heard there were eight
17 stakeholder meetings. I'm not sure I'm really willing to
18 second guess the people that participated in at least eight
19 meetings on a word.

20 But that's not to say I would not be willing to
21 be persuaded. If you want to have biofiltering, I'm good
22 with that. If you want to go to goal rather -- but it is
23 just it is not my nature to do that. I agree with the going
24 from 5-foot to the 10-foot.

25 But the fact is that personally I'm not

1 enthused about doing other than keeping open the dialing
2 about the items under C. I actually think, Fred, you can
3 end up costing an applicant more time and money if they come
4 here for an appeal and then go to the State Board for
5 appeal. They can actually end up spending even longer.

6 MR. AMERI: We got to keep the option open.

7 MS. BESWICK: I'll go either way on it. I think you
8 need to think about who the ultimate authority is. If we
9 deny, they can end up --

10 MR. AMERI: I don't want that issue of E1 being
11 overlooked. Either it's got to be --

12 MS. BESWICK: I'm perfectly fine -- my inclination on
13 that one, I don't have a problem with EO making the
14 decision. But I think the appeal could come to us. I'm not
15 objecting to that. I'm suggesting if the appeal comes to
16 us, it could also have a second step. That's all. And so
17 when talking about saving people time and money, that's
18 something to consider.

19 But for me, I would just as soon keep this open.
20 Whatever you want to do on a motion as far as the appeal of
21 the EO piece is fine. I really, personally, have a pretty
22 high regard for the work that has been done by the
23 stakeholder group, and I thank them for their time and
24 conscience effort. And Mike as well. Very good job.
25 This is tough stuff.

1 Now, go right ahead. Have a motion, Mr. Ruh.

2 MR. RUH: My motion is to keep the two items open and
3 to vote on the rest.

4 MR. PON TELL: I think Counsel advised not doing
5 that.

6 MS. BESWICK: Not keeping it open?

7 MS. MC CHESNEY: To not vote today on the permit, but
8 to allow additional comment.

9 MS. BESWICK: He's just making a motion to keep the
10 public hearing open?

11 MR. PON TELL: He's making a motion to vote on the
12 rest.

13 MS. BESWICK: Excuse me.

14 MR. RUH: No. Keep it open so that we can talk about
15 these two items.

16 MS. BESWICK: Well, could I make a suggestion? I
17 think that -- let's go back to what Frances suggested.

18 MS. MC CHESNEY: You don't need a motion at this
19 point. You can, by consensus, continue the public hearing
20 to May 22nd, leaving -- and provide an opportunity to
21 comment on, specifically, section 12C. And then deliberate
22 next time.

23 MS. BESWICK: I think Bill's probably trying to get
24 some vehicle for us to get to consensus on what we were
25 going to leave the public hearing open on.

1 It doesn't have to be a motion. Perhaps it can
2 just be a consensus of the group that we'll leave the
3 hearing open on the subject of item C, in its entirety.

4 MR. AMERI: I want to let you know that May 22nd,
5 since you need at least five votes, I'm not going to be in
6 town.

7 MS. BESWICK: Do we have five people for May 22nd?

8 MR. RUH: I'm here.

9 MS. BESWICK: I promise we won't go to the next day.
10 Are you two here? Then we've got it, then. We've got it.

11 So, I guess, that's the question. So
12 that -- for the purposes of the people who are in the room
13 that want to submit comments, there are two things.

14 One, we need a deadline by which we get the
15 comments.

16 MR. THIBEAULT: We have four weeks until the Board
17 meets. Perhaps we can have comments by two weeks, and cut
18 it off at that time.

19 MS. BESWICK: Cut it off by May 8th. So comments by
20 the 8th.

21 And then -- but I think what we need to get
22 consensus on here is -- item C, we all agree to.

23 MR. PON TELL: Correct.

24 MS. BESWICK: Do we want to -- it seems to me the
25 other pieces we might not need public comment on, but we as

1 the Board might want to still address. Such as the appeal
2 process and the individual changes, the biofilter piece, the
3 goal piece.

4 MS. MC CHESNEY: I want to comment. Just by leaving,
5 continuing the hearing and leaving it open for further
6 comments on specific issues does not prevent you from having
7 minor changes to the permit, the word changes that could be
8 developed over the next two weeks, also.

9 And your deliberation, next time, you know, in
10 May that you may want to change something else, you can
11 still do that.

12 MS. BESWICK: I think we're trying to limit the
13 public comment.

14 MS. MC CHESNEY: Right. You can say now that the
15 public comment is only on item C. That's it. Those two
16 items and anything relevant to those two items. That's fine.

17 MS. BESWICK: All of item C. There might be a need
18 to do some alignment of impacts of changes to C.

19 Is that agreeable then? Steve?

20 MR. PON TELL: Yes.

21 So then, Madam Chairman, I don't know if it's
22 an expression of the intent of the Board on just a couple of
23 the other items. But going from 5 feet 10 feet. Maybe if
24 that language can be incorporated in the modified -- I do
25 think maybe some language, to give us something to look at,

1 in the less than half a percent chance the EO's decision
2 were, in deed, to be appealed, but then there would be -- we
3 would be a step in that appeal process.

4 I do think that the word "strategy" may not be
5 the best word. If there's not -- not to wordsmith too
6 much. It is my nature. And then maybe to figure out how to
7 incorporate the biotreatment.

8 I don't know if it's the will of the Board to
9 agree to, in principle, with those changes, they can be
10 incorporated.

11 MS. BESWICK: You're okay with those pieces? Yes.
12 That's understood, then, as part of the process.

13 MR. AMERI: That's it, yeah.

14 MS. MC CHESNEY: I did want to say something on the
15 delegation to the executive officer on those issues about
16 the reviewing the criteria that -- Section E. That you
17 could -- one option is that the executive officer could get
18 the application for approval and determine that this is not
19 one that the executive officer wants to approve but rather
20 bump it to the Board.

21 MS. BESWICK: That's the opposite of how we're trying
22 to do things, Frances.

23 MS. MC CHESNEY: Instead of putting in that it must
24 go to the Board on these certain circumstances -- which
25 might be hard to define. You can leave it up to the EO to

1 choose to say, "This one is appropriate" -- and that's what
2 happened in the Los Angeles -- what's referred to as the
3 SUSUMP order. The executive officer did approve the
4 SUSUMPs, then it went to the regional board who then
5 approved what the executive officer did, maybe added some
6 more.

7 You could leave it open that just the EO will
8 then bump it to the Board instead of making the decision.

9 MR. PON TELL: I think staff --

10 MS. BESWICK: I like that, too.

11 MR. AMERI: Pretty much what we do with ACL, isn't
12 it?

13 MS. BESWICK: No, I don't think that's what we do
14 with ACLs.

15 You know what. Let's let them bring something
16 back to us. With ACLs, they are always on our agenda. And
17 sometimes they are not. They always start on our agenda.
18 That's where they originate. Right? Right.

19 MR. PON TELL: I apologize --

20 MS. BESWICK: Thank you, Steve.

21 MR. AMERI: There are some results we don't hear.

22 MS. BESWICK: No, they're always on our agenda.

23 Unless they're resolved before the agenda gets published. I
24 see what you're saying, Fred.

25 MR. THIBEAULT: They still come to you for approval.

1 MS. BESWICK: Okay. I think we have consensus. I
2 hope everyone is in accordance and understands. We will
3 have this on our agenda on the 22nd. Comments by the 8th.
4 And we'll take final action, theoretically, at that time,
5 unless something complicated comes up.

6 All right. Then I'm going to move on to the
7 next item, which is Item Number 13. Public Hearing on the
8 Clean Water Act Section 305(b) Integrated Report/Clean Water
9 Act Section 303(d) List of Impaired Waterbodies.

10 Pavlova has probably waited for us all this
11 time.

12 All right. Good afternoon.

13 MS. PAVLOVA: Good afternoon, Madam Chair, members of
14 the Board.

15 I'm here once again to talk to you about the
16 2008 integrated report for our region. As you might recall
17 I first presented this topic to you at the January 23rd
18 board meeting. And at that meeting I presented a brief
19 background on the regulations governing the integrated
20 report and showed you the preliminary results of the data
21 assessment that we had done. We were at the time also
22 looking for public comments.

23 And it -- also at that meeting you heard some
24 of the comments from the public and staff went away with the
25 task to work with the public, hold public workshops, and to

1 obtain and respond to public comments.

2 It has been about three months now since the
3 last board meeting. And I'm here to say we've come a long
4 way since then. We held two public workshops. We met
5 individually with stakeholders. And we have shared our
6 data, heard their concerns and recommendations. And,
7 consequently, we have revised the integrated report where
8 appropriate. And, of course, we considered in making those
9 revisions the state listing policy. We believe that we have
10 a better product now. And before you today there's an
11 agenda package that includes the staff report that
12 summarizes my talk, and among other things, resolution for
13 your consideration.

14 First of all, I'm going to show you the steps
15 that board staff took to arrive at the current report and
16 hopefully answer any questions you have.

17 I will begin with giving you a brief regulatory
18 background and also explain what an integrated report is and
19 summarize the new integrating report and share with you the
20 most recent comments we have received from the public. And
21 these are comments that would be received after April 10th,
22 which is when the agenda was sent out. I will also explain
23 to you the next step we could take and give you board
24 staff's recommendations.

25 To begin with, section 305B of the

1 Clean Water Act requires the states to prepare and submit
2 every two years to the US EPA every quarter, assisting the
3 state water quality. EPA, in turn, reviews and approves the
4 report which is used in the preparing the state of the
5 waters report to congress.

6 Section 303D of the Clean Water Act requires
7 the states to develop and submit to EPA for approval a list
8 of waterbodies that are not meeting water quality standards
9 and are not expected to do so even with technology-based
10 controls.

11 I would like to point out that a water quality
12 standard is defined as the beneficial use, the water
13 objectives necessary to protect that use and the anti
14 degradation policy.

15 Now, with that in mind, the integrated report
16 combines the Clean Water Act Section 305B report and the
17 Section 303D list of impaired waters. Further, it also
18 places the waterbodies assessed into one of five categories.

19 Category 1 are those waterbodies that meet all
20 water quality standards and no use is threatened.

21 Category 2 are the waterbodies that are meeting
22 some water quality standards while insufficient data and
23 information to determine if other water quality standards
24 are met.

25 Category 3 are the waterbodies for insufficient

1 data and information is available to determine any water
2 quality standards being obtained.

3 Category 4 is where one of more water quality
4 standards are impaired or threatened, but the TMDL is not
5 necessary if any of the following is true. The TMDL is
6 already approved or established by EPA. Implementation of
7 other pollution control requirements is expected to obtain
8 water quality standards. Or the waterbody impairment is not
9 caused by a pollutant.

10 Category 5, which I think is the biggest point
11 of interest, are those waterbodies that are impaired. They
12 are not obtaining water quality standards and a TMDL, or
13 total maximum daily load, is not needed.

14 Let me point out that TMDL is a calculation of
15 the maximum amount of pollutants that a waterbody can
16 receive and still safely meet water quality standards. It
17 is calculated by including a load allocation from point
18 sources and load allocations from non-point sources and a
19 margin of safety.

20 In California, it is each regional board's
21 responsibility to prepare an integrative report. And the
22 State Board is closely overseeing this process. They will
23 review each integrated report for their approval and
24 ultimately compile each of these into one state-integrated
25 report.

1 In preparing the preliminary integrated report
2 as well as the final draft before you today, Staff reviewed
3 the data from approximately 60 waterbodies in accordance
4 with the listing policy. And, also, staff consulted with
5 stakeholders, regional and state board staff, and presented
6 the preliminary report to you at the January board meeting.

7 As I said earlier in this talk, soon after the
8 January board meeting, staff held public workshops and met
9 with individual stakeholders. Comments from this public
10 outreach included letters of support for the work staff had
11 done. And others mainly dealt with suggestions on how to
12 assess the data. A copy of the comments received is
13 included in Attachment 7 of your agenda package.

14 A table outlining each comment with the
15 corresponding staff's response is in Attachment 6.

16 Consequently, the integrated report was revised
17 where appropriate and, of course, a table outlining these
18 revisions is in Attachment 4.

19 Here is a list of the entities who provided
20 comments. We are -- like you mentioned earlier, we are very
21 fortunate in the region to have the stakeholders' interest in
22 this process because it allows us to prepare a better
23 product. As I mentioned before, the integrated report
24 integrates the 305B water quality assessment and the 303D
25 list of impaired waterbodies and places each waterbody

1 assessed into one of five categories.

2 Beginning with Category 5, here is a summary of
3 the proposed integrative report: We're proposing to add to
4 the 303D list Bolsa Chica Channel for ammonia; Oregon Creek
5 downstream of Irvine Boulevard for ammonia;
6 East Garden Grove Wintersburg Channel for ammonia;
7 Newport Sleuth for enterococcus; Peter's Canyon Channel for
8 pH; Serrano Creek for pH; Chino Creek for PH; Chino Creek
9 Reach One B for chemical oxygen demand; Chino Creek
10 Reach Two for pH.

11 And at this point I'd like to make a correction
12 on this slide and also on your agenda package. We are going
13 to be proposing to remove City Creek from the current 303D
14 list or Category 5. Primarily, that was an oversight on our
15 part. The data doesn't reflect that there is impairment
16 there for mercury or cardamon.

17 Cucamonga Creek Reach One for pH, copper, and
18 zinc; Cucamonga Creek Reach Two for PH; Lake Elsinore for
19 sediment toxicity; Rathbone Creek for cardamon and copper;
20 San Antonio Creek for pH; Santa Ana River Reach Three for
21 copper during the wet season; and Temescal Creek Reach One
22 for pH.

23 Let me also point out that the TMDLs for these
24 developments such these TMDLs are expected to be no later
25 than 2021.

1 Just like we can add waterbodies to the 303D
2 list, we can remove them from the list. For our region,
3 assessment of the data has suggested that we take these
4 waterbodies from the list: And that's Big Bear Lake for
5 sediment, siltation, and metals; Grout Creek for copper;
6 Knickerbocker Creek for metals; San Diego Creek for metals.

7 Moving along to Category 4. That includes
8 waterbodies that are impaired, but no TMDL is required
9 because an approved TMDL is in place. This category
10 includes Newport Bay for bacterial indicators.

11 Category 3 includes waterbodies with
12 insufficient quantity or quality of data to determine if any
13 standards is being attained. These are Chino Creek
14 Reach One for pesticides; San Haibane Creek for pH,
15 chloride, total dissolved solids, sodium, sulfates, and
16 total nitrogen.

17 Moving along to Category 2 which are the
18 waterbodies meeting some standards, but we don't have enough
19 information to determine if there are other standards met.

20 As you can see, this list pretty much includes
21 beaches. Bonita Creek, San Mateo Creek, and Mill Creek in
22 the Prado areas.

23 The water bodies meeting all water quality
24 standards -- I wish we could tell you we have a long list,
25 but at this point the data we assessed did not show -- did

1 not reveal any waterbodies in this category. None of the 60
2 waterbodies assessed fell in this category. And that may be
3 because monitoring has focused mainly on problem areas and a
4 lot of the data is focused on those areas. So it is not
5 really that there aren't any.

6 Like I said before, we have received comments
7 after April 10th, 2009, when we had sent out the agenda.
8 So these comments that were received are here on these two
9 slides for you to look at.

10 The main focus of these comments are from
11 Orange County Public Works. They would like us to make
12 sure that the ammonia listing for Bolsa Chica Channel and
13 East Garden Grove Wintersburg Channel be limited to the
14 title prism.

15 At this point regional board staff does not
16 agree with that comment. Primarily because the samples that
17 were collected in these channels were in the fresh water
18 part of these channels, and we don't believe that the
19 exceedences (sic) are caused by the title influence.

20 The other comment that we received was from
21 Riverside County Flood Control District. They submitted a
22 map that depicted the areas where there were fires. And
23 they would like us to consider this map in the effects of
24 the fires in assessing the Lake Elsinore sediment toxicity
25 data.

1 The map was a very nice, well put-together map.
2 It was very informative, but it did not indicate that there
3 would have been an influence on the sampling that took place
4 in 2003. As a result, it would not have influenced the data
5 assessment for that period.

6 We also received a fairly lengthy letter from
7 the Santa Ana River Association where they summarized their
8 comments. These comments are fairly -- are, basically, not
9 new. These are comments that, basically, were discussed
10 with us during stakeholder meetings and individual meetings
11 and via e-mails and phone calls. And as a result of these
12 comments, we have revised our integrated report. So I,
13 basically, summarized the comment on this slide.

14 As you can see, we have come a long way since
15 the January 23rd board meeting. And there are yet a few
16 more steps to go. Once this integrated report is approved
17 by the regional board, it will be transmitted to the
18 State Board with all the associated information.

19 The State Board will in turn review and approve
20 the integrated reports from each regional board and will
21 transmit all these as a single integrated report to US EPA
22 for their approval.

23 Let me also add that we're not too far away
24 from the next integrated report cycle. This next cycle
25 begins at the end of this year, beginning of 2010 or end of

1 2009.

2 I also would like to bring up that we have an
3 errata sheet included in your package. This recently added
4 errata sheet amends the resolution. It gives the executive
5 officer the authority to make non-substantial changes to the
6 water quality assessment data base prior to transmitting it
7 to the State Board. And we would also like to add to this
8 errata sheet the deletion of City Creek listing for cardamon
9 and mercury.

10 With that, I would like to conclude with Staff's
11 recommendation to the Board to adopt Resolution Number
12 R8-2009-0032, approving the 2008 integrated report,
13 including the 303D list of impaired waters as presented and
14 amended by the errata sheet.

15 That concludes my presentation.

16 MS. BESWICK: Thank you.

17 Any questions?

18 MR. AMERI: A lot of work since the last time we
19 heard you.

20 MS. BESWICK: Thank you.

21 I have a few people who would like to comment.

22 I'm going to start with Tim Moore. He promised
23 he isn't going to use as much time as he put on his card.

24 I know. Why should you be exempt?

25 MR. MOORE: It is proform to thank staff. And I am,

1 but that simply does not do it justice. It just doesn't. I
2 would have bet a lot of money it could not be done what I
3 saw Pavlova do for the last four weeks.

4 She took a year's worth of work, took our
5 criticisms and suggestions, and redid the analyses for 60
6 locations and all that data and all the perimeters. Not
7 once, but twice. And I don't know any engineering person
8 that could have done that in the time that was allotted, and
9 do it as well as she did.

10 It is so far and above the call of duty, I just
11 can't simply say it is nice to work with your staff. This
12 was a miracle. So kudos for Pavlova for pulling it off.
13 And as a result I can stand here and say I think we have no
14 serious objections to what's going forward to the
15 State Board.

16 I'd like to, then, condense my comments to the
17 two issues where we need some clarification.

18 I'd like to point to the NRDC's presentation
19 this morning that pointed out the Pinto Creek decision.
20 Which basically says that if you list a waterbody on the
21 303D list and have not developed TMDL for it, then there are
22 pretty severe restrictions on what you can issue permits for
23 with respect to new discharge.

24 And so there's always a big question what
25 constitutes a new discharge. Is every new development a new

1 discharge? Is Riverside's treatment plant plans to expand
2 their facility a new discharge or is that an expansion of
3 existing discharge? You can get into really tight knots on
4 this stuff.

5 And what you don't want to do is look at the
6 list and say, "Well, you don't have do the TMDLs until
7 2021." The reality is, while that's true, between now and
8 then, until the TMDLs are developed, you may have some
9 serious restrictions on what permits you can issue. You
10 want to be very thoughtful about that.

11 The other thing I wanted to do -- this came out
12 of this morning's presentation -- is refer to these
13 Watershed Action Plans. Because, once again, the new
14 language of the new permit says if you have a stream or
15 waterbody listed as impaired, but for which, yet, there is
16 no TMDLs developed, then there is an expectation that the
17 stakeholders will provide you a watershed action plan as to
18 how they intend to monitor this. And what they intend to do
19 about it until such time as a TMDL is developed.

20 What I want to do on the last two issues, the
21 two proposed listings, is talking about that. I want to
22 talk about what we intend to do over the next two years.
23 Make sure that's acceptable to you and your staff, in a
24 general sort of way. In which case, if it is, then we can
25 accept the listing and don't have to go fuss with the

1 State Board or any of that. Because we think we can resolve
2 the issues in short order.

3 The two we have concerns about are the
4 Reach Three copper listing and the Lake Elsinore sediment
5 toxicity listing.

6 In the case of Reach Three, we think what is
7 going on here is we have a whole lot of data that is copper
8 measured in the total recoverable form. And all that work
9 we went to 16 years ago to develop a translator between
10 total and dissolved was intentionally done very
11 conservatively. And, frankly, the translator does a great
12 job of figuring out what is going on during base flow
13 conditions. But doesn't do a fantastic job during storm
14 flow conditions, which are as you saw the wet weather
15 conditions where we have the exceedences (sic).

16 We believe if we spend the next year or two
17 gathering some more data, we can develop a wet weather
18 translator that is appropriate for stormwater. So we don't
19 have to rely on what we did 16 years ago. And once we do
20 that, if things fall into place -- as EPA says we should
21 expect them to, based on their generic formulas -- this
22 listing will go away.

23 And so I want to suggest that that's what we
24 intend to spend the next two years doing, looking at water
25 effects ratios, looking at stormwater TD ratios, and perhaps

1 collecting some actual dissolved data instead of total
2 recoverable data, and revisit this in two years.

3 Why am I bringing this up now? Because there's
4 a difference of delisting and coming back -- and there's one
5 set of mathematical probability criteria for doing that --
6 and another that says, two years from now, "You know, that
7 listing we did two years ago probably wasn't correct. We
8 didn't have all the data we need. And if we'd had this, we
9 would have made a different decision."

10 I want to make sure that latter option is open.
11 Because it's substantially easier and less costly to just
12 fill in the blanks that are missing and go back and
13 reevaluate all the data than it is to come up with whole new
14 data showing that there is, now, no impairment and all the
15 old data stays as it is with its voids.

16 So it is just an approach, I think, makes
17 perfect sense. If I leave a placeholder here, since some
18 people may not be here, I can refer to this and say, "Yeah,
19 that seems reasonable." In the meantime, you list it and
20 we'll work it out two years from now.

21 MR. AMERI: But when you list it, isn't it a big
22 process later on if you found out in a year --

23 MR. MOORE: It can be. But it doesn't have to be.

24 Okay. There are two ways to delist. One of
25 them is a really big, ugly, nasty, statistical thing that

1 requires an immense amount of data. And the other is to
2 say, "You know, we had a little more data that helps us
3 evaluate the old data we used the first time."

4 In this case what we need is how much of the
5 copper in the middle Santa Ana River that we measured as
6 total recoverable is actually in the more toxic, the toxic
7 dissolved form. We can kind of guess at that now. But we
8 don't have to.

9 If we get a good translator, we can go back to
10 the old data, refigure things and just say, "We were overly
11 conservative. We made conservative assumptions because we
12 had no better data. Now that we have onsite specific data,
13 we don't have to make that assumption. And our previous
14 assumption was in error." That's just easier to do.
15 Requires less data and less money, mostly.

16 All right. Lake Elsinore. There's no question
17 whether it is failing the sediment toxicity test. So we're
18 not here to dispute whether we see this phenomenon
19 occurring.

20 What we have concern about is what is already
21 written in the Staff's report, which is we don't know what
22 is causing it. It might be being caused by some of the
23 nutrient problems that have already been identified for
24 Lake Elsinore, and for which we already have a TMDL. It
25 might be being caused by the fact that all the data that was

1 collected for this study was collected in 2003 when the lake
2 was very low. A lot of the water had evaporated which
3 concentrated the residual salts.

4 And we know at high salinity levels this
5 particular test level doesn't fair very well. So it may be
6 a combination of those things. The hydrogen sulfide coming
7 off the bottom from the organic material decaying from the
8 nutrients. Might be some ammonia issues. Might be
9 salinity. Might be all those things.

10 The key thing is this. If it is salinity,
11 there's not much we can do about that. If it is nutrient
12 related, we are already doing a lot about that.

13 The next natural step after this listing is to
14 figure out what the specific cause is. I can tell you that
15 having done that many, many times across the country, that's
16 a 100 to \$200,000 next step. It is very expensive for
17 sediment toxicity. Very complicated.

18 What I would suggest is this. We spend a
19 fortune on putting aerators into Lake Elsinore and adding
20 supplemental reclaimed water flows to get the elevations up.
21 And we genuinely believe these things, as I told you last
22 December, that these things are going to make a big
23 difference.

24 So our thinking is, we structure a reassessment
25 process to look at whether or not those things solved the

1 problem. If it's ammonia or hydrogen sulfide related, it
2 ought to have. And that we reassess in a wet year when the
3 salinity's a non-issue. That will very quickly tell us that
4 it either is or is not these other alternative explanations.

5 If it is not ammonia or hydrogen sulfide or
6 salinity, then it's something more serious like perhaps a
7 pesticide. In which case we're off to the races doing the
8 TIE work, the toxicity identification work.

9 And we think that, you know, we wait for a wet
10 year -- three, four, five years -- reassess, and if it is
11 not what we think, then we -- if we think -- if the TMDL's
12 going to solve it; it is going to solve it. If it's not, we
13 do the TIE. And that still leaves us four to five years
14 before the TMDL itself is due. But to do a TMDL, you have
15 to know what is causing the problem.

16 What I'm suggesting is an approach that
17 simplifies figuring out what is causing the problem. So we
18 don't have to spend so much money in a rough year. Gets us
19 to the exact same place on the exact same schedule.

20 That's the watershed action plan we would
21 likely be proposing to you. If that feels right to you,
22 then the listing itself doesn't give us great pains, and
23 we'll go prepare -- what we do the next year and the year
24 after. And what we do if it is this. And what we do if it
25 is that. And it'll show the decision tree all the way to

1 the TMDL in 2021, if still necessary.

2 I want to make sure that that proactive
3 approach is okay. And what we don't have to do is,
4 especially with copper -- we don't really believe we have an
5 impairment, but in Lake Elsinore we probably really do. But
6 a question of what it is matters a lot as to what we can do
7 about it.

8 So that's it in a nut shell.

9 MS. BESWICK: That was good Tim.

10 MR. MOOR: Okay. That's what we're suggesting.
11 Doesn't change the recommendation -- but if I can get some
12 clarification on that -- it changes the likelihood we ever
13 need to go to Sacramento and argue this in front of the
14 State Board.

15 MS. BESWICK: Any input for Tim?

16 What would you like someone up here saying?

17 Joanne, you would like to respond.

18 MS. SCHNEIDER: I was going to comment. I obviously
19 don't want to step on the toes of my stormwater colleagues.
20 I would suggest that what Tim proposed is exactly what
21 should happen.

22 MS. BESWICK: That's a pretty strong endorsement,
23 isn't it. I wouldn't say another word, if it were me.

24 Does that help?

25 MR. MOORE: It helps a lot. We want to make sure

1 we're doing the right thing. We don't want to get stuck in
2 an unintended consequences, oops.

3 MS. BESWICK: All right. Great. Thank you. Enjoy
4 your weekend in Southern California.

5 John Kemmerer. Thanks for waiting all this
6 time.

7 MR. KEMMERER: Hi. Good afternoon,
8 Madam Chair, members of the Board. So thanks for the
9 opportunity -- my testimony on this is actually -- my
10 understanding is that the staff is proposing the list be
11 adopted and passed on to the State Board. And we don't at
12 all object to that. We think the staff has done a great
13 job in putting this together.

14 I want to let you know we do have a
15 disagreement with conclusions on two of the waters that are
16 being considered here. Those are, Temescal Creek
17 Reach 6 and San Diego Reach 1 and 2. So in those cases
18 there's a clear analysis given here. And it discusses that
19 there's some elevated levels of bacteria.

20 Staff is making the recommendation that because
21 of some standards that are going to be revised in the
22 future, they're not going to be listed at this time. We
23 think there's some legal vulnerabilities with that argument.
24 And as was described, the process here is you guys adopt it.
25 It goes to the State Board. It comes to us. And we approve

1 it. And we can add waters to it.

2 So we'll be taking a close look at these couple
3 waters, and it is possible that we'll be adding them to the
4 list based on our reviews.

5 MS. SCHNEIDER: I appreciate that. And we also have
6 to note, the State Board staff also has an opportunity to
7 make recommendations different from those we provided to you.

8 And what Mr. Kemmerer refers to specifically
9 are some e coli measurements, as I recall, for Temescal
10 and San Diego Creek. At the present time, of course,
11 our bacterial quality objectives are not based on e coli.
12 They are based on fico coliform. However, EPA does have
13 national criteria based on e coli.

14 But the concern that Staff has in applying the
15 e coli data is basically that the data is very limited. And
16 we're talking about an analysis of samples collected once a
17 month, perhaps twice a month, to a value assigned to a
18 single sample maximum value as opposed to the more
19 traditionally employed geo mean, which gives you a heightened
20 level of confidence with respect to actual public health
21 risk.

22 And EPA's guidance has, in fact, explicitly
23 acknowledged that the single sample maximum values should be
24 used, are intended for use for posting purposes, for
25 notification purposes, and as triggers for additional

1 monitoring. Now, I will acknowledge that EPA does not limit
2 the application for single sample maximum values for just
3 those purposes. But acknowledges the states have at their
4 discretion to use them for other water quality standard
5 program uses.

6 In this case, Mr. Kemmerer is suggesting that
7 we use them for impairment assessment purposes. We just --
8 given the high level of variability of single sample
9 maximum values, we simply don't think they should be used
10 for impairment purposes. This is a theme, actually,
11 repeated in the California Ocean Plan with explicit language
12 therein.

13 And I think the other concern is that in the
14 specific application of the single sample maximum values, I
15 think the EPA and, perhaps, the State Board staff are
16 purposing to evaluate the data using a single sample maximum
17 value that is calculated based on a couple of assumptions.

18 One being that we're talking about designated
19 beach areas, which, in this case, we're not. Neither
20 Temescal Creek nor San Diego Creek Reach One or Two, I
21 think, in most people's judgment be designated beach areas.

22 And furthermore, the equation that is used to
23 calculate the single sample maximum values has a variable
24 that reflects the variation in data. And we know that
25 there's a lot of variability for these particular waters.

1 That if we were to employ the greater variability in -- the
2 equation would, in fact, result in a much higher single
3 sample maximum value.

4 The single sample maximum values are to be
5 used, and EPA is very explicit on this, really as
6 statistical constructs to tell you whether or not you are
7 actually meeting your geo mean, which is typically the way
8 the objectives are expressed.

9 And you want a greater level of confidence and
10 more stringent number for a single sample maximum where you
11 want greater confidence that your geo mean is being met.
12 That's where you have a very stringent single sample maximum
13 value that applies to a designated beach area. Where as if
14 you have an area that's very infrequently used, you can allow
15 for higher single sample maximum because you're not so
16 concerned about making sure your geo mean is met.

17 In our best professional judgment, to employ
18 the single sample maximum data in this case simply does not
19 make sense. We completely acknowledge we've got some high
20 numbers there. That we need to follow up on. And what we
21 proposed do is collect additional data and ask ourselves
22 based on the additional data do we have a bacterial quality
23 problem that warrants listing?

24 And as Pavlova has indicated, we're going to be
25 in that process in the pretty near future. We will

1 respectfully disagree on that score.

2 MR. KEMMERER: I appreciate the explanation. The
3 write-up I have is from, I believe it's from the proposal.
4 It doesn't base the conclusion on the single sample maximum.
5 It is the fact that there's this new process for new
6 criteria.

7 MS. SCHNEIDER: We've supplemented that response
8 substantially.

9 MR. KEMMERER: I'll take the response back.

10 MS. BESWICK: That was well put. Thank you.

11 Garry Brown and then Amanda Carr will follow.

12 MR. BROWN: Garry Brown, Orange County Coast Keeper.

13 First, we would like to thank Pavlova for all
14 the work she has done, and the great work she's done on
15 developing this report. And we are in total support of her
16 work, and what she has done.

17 A lot of the data --- some of the data we
18 submitted on these and -- of particular concern is -- to us
19 is to make sure that the recommendation for the ammonia
20 listing on Bolsa Chica Channel and the East Garden Grove
21 Channel, we support that.

22 We don't see the prism as an issue because the
23 samples weren't taken in a prism, they were taken further up.

24 We hope that you approve the list, the report.

25 Thank you.

1 MS. BESWICK: Thank you.

2 Amanda followed by Matt Yeager.

3 MS. CARR: Madam Chair, members of the Board, thank
4 you for the opportunity. I'm the Chief of Water Quality
5 Planning for County of Orange. So I sat through all the
6 permit discussion as well. That was very important
7 because my group does the TMDL. We're all interrelated.

8 Just wanted to offer a, sort of a clarification
9 to our comment on the East Garden Grove Wintersburg and
10 Bolsa Chica Channel limiting the listing. That was mainly
11 based on a beneficial use issue that those channels are not
12 listed in the basin plan, but the sections of channels that
13 are listed in the basin plan are the titally (sic)
14 influenced area.

15 We asked -- to be consistent with the basin
16 plan and the designated uses for those areas -- that we
17 limit the listing to the area that's listed within the basin
18 plan. We realized that the samples were taken further up
19 stream. But those areas do not have beneficial uses
20 assigned to them and are not included in the basin plan.
21 That's our viewpoint.

22 And then I also wanted to just quickly
23 reiterate what Tim was saying in the beginning of the
24 process. You know, working with Pavlova on this 303D
25 listing process has been very, very clear, very helpful.

1 She has always been willing -- in fact, she came out to our
2 offices, e-mailed me all her spread sheets, and we went
3 through issues and discussed things very clearly. I thought
4 it was a very clear and open process.

5 And, you know, a great regulatory process to
6 work through. And I can only hope that our Region 9 folks,
7 who we also work with, will be as cooperative in the listing
8 process.

9 MS. BESWICK: Now, don't go telling Region 9 that you
10 really like the way it was done in Region 8. They hear
11 enough of that.

12 MS. CARR: Thank you for the time.

13 MS. BESWICK: Thank you very much for sitting through
14 all of that.

15 Matt and then Jason and --

16 MR. YEAGER: Good morning, again, Madam Chair,
17 members of the Board.

18 I got a call -- I remember getting a call -- or
19 I came back to my office a few weeks ago and there was a
20 message saying, "You better call Pavlova. She called and
21 wants to talk to you." I thought -- not sure what to do.

22 Following that, I found that Pavlova was really
23 great to work with, very collegial. We went through the
24 data, again, echoing what Tim said.

25 Mike, I have a question. At this point if I

1 was to have a question with one of the remaining listings
2 that I think might be incorrect, hypothetically, how would
3 I -- what is the process -- I don't want to go any further
4 than necessary if, in fact, there's something missing.

5 MS. SCHNEIDER: Well, I'll give it a try. You can
6 correct me. I think that if you have additional, relevant
7 information, then by all means share it with us. And if
8 we're persuaded that it has merit, we can forward it to the
9 State Board as well for their consideration. Of course,
10 they have to go through a similar process.

11 MR. YEAGER: Can I do that Monday or whenever
12 possible.

13 Again, thank you very much. Very collegial and
14 worthwhile. Great work. Thank you very much.

15 MS. BESWICK: Thank you.

16 Jason?

17 MR. UHLEY: Jason Uhley, Riverside County Flood
18 Control on behalf of Riverside County MS4 program.

19 I'd like to concur with Joanne's comments on
20 Temescal. They were very eloquent.

21 We just also wanted to gush about Hope and
22 Pavlova's work. I think that they really went above and
23 beyond this. The additional stakeholder process was really
24 helpful. And we believe it's really important because the
25 303D list is having an additional regulatory meeting for us.

1 And it's really important that we get the list right because
2 it has -- it costs the city money if we get it wrong.

3 I hope that this level of effort will be
4 continued forward.

5 Thank you, again, for that.

6 MS. BESWICK: Thank you for your comments.

7 Hope, would you like --

8 MS. SMYTHE: I need to make one quick response to
9 Ms. Carr's comment about the title prisms and the beneficial
10 uses in the basin plan.

11 For those two channels, they are not in the
12 Basin Plan and do not have assigned beneficial uses. But
13 the ammonia criteria that we looked at is related to the
14 fishable goal of the Clean Water Act. And it's completely
15 appropriate for us to apply the aquatic life beneficial use
16 to those channels, even if they are not in the Basin Plan.

17 MS. SCHNEIDER: Those uses are presumed.

18 MS. SMYTHE: Exactly.

19 MS. BESWICK: Thank you.

20 That's the extent of the comment cards that I
21 have.

22 Do we have any questions by the Board or staff?

23 If not, are you ready to take action on the
24 list?

25 MR. RUH: I'll make a motion for the item as

1 presented.

2 MS. BESWICK: With the deletion of City Creek?

3 MR. RUH: Correct.

4 MR. AMERI: Second.

5 MS. BESWICK: Any discussion?

6 All in favor, please say aye.

7 BOARD MEMBERS: Aye.

8 MS. BESWICK: Any opposed?

9 I believe that's our agenda for today. So
10 we'll reconvene on the 22nd. We'll all be there.

11 (Board meeting adjourned at 3:11 p.m.)

12

13

Attachment 38

1 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

2 SANTA ANA REGION

3 CAROLE H. BESWICK, CHAIRPERSON

4

5

6 In the Matter of:)
)
7 Public Hearing re: Agenda item 12,)
Renewal of Waste Discharge)
8 Requirements, County of Orange,)
Orange County Flood Control)
9 District, and Incorporated Cities)
of Orange County, Urban Storm)
10 Water Runoff Management Program)
(NPDES No. CAS618030))
11 _____)

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15 TRANSCRIPT OF PROCEEDINGS

16 Loma Linda, California

17 Friday, May 22, 2009

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22 Reported by:

23 MELISSA TRESSEN
CSR No. 13367

24

25 Job No.:
B1839WQRV

1 CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

2 SANTA ANA REGION

3 CAROLE H. BESWICK, CHAIRPERSON

4

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6 In the Matter of:)

7 Public Hearing re: Agenda item 12,)

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11 District, and Incorporated Cities)

of Orange County, Urban Storm)

Water Runoff Management Program)

(N.P.D.E.S. No. CAS618030))

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15 TRANSCRIPT OF PROCEEDINGS taken at

16 25541 Barton Road, Loma Linda, California,

17 commencing at 9:00 a.m., on Friday,

18 May 22, 2009, heard before the CALIFORNIA

19 REGIONAL WATER QUALITY CONTROL BOARD,

20 Santa Ana Region, reported by MELISSA TRESSEN,

21 CSR No. 13367, a Certified Shorthand Reporter

22 in and for the State of California, pursuant

23 to Notice.

24

25

1 APPEARANCES:

2 CHAIRPERSON: Carole H. Beswick
3 BOARD MEMBERS: Seymour D. Van Gundy
4 William Ruh
5 Steven PonTell
6 Richard A. Freschi
7 EXECUTIVE OFFICER: Gerard J. Thibeault
8 ASSISTANT EXECUTIVE
9 OFFICER: Kurt V. Berchtold
10 LEGAL COUNSEL: David Rice
11 ENVIRONMENTAL
12 PROGRAM MANAGER: Joanne E. Schneider
13 SUPERVISING WATER
14 RESOURCE CONTROL
15 ENGINEERS: Michael J. Adackapara
16 Robert L. Holub
17 CHIEF OF STORMWATER: Mark E. Smythe
18 INFORMATION
19 SYSTEMS ANALYST: Kevin Heinemann
20 EXECUTIVE ASSISTANT: Felipa Carrillo
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1 Loma Linda, California, Friday, May 22, 2009

2 9:00 a.m.

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4

5 MS. BESWICK: That brings us to item 12, which is
6 the continued public hearing on the Renewal Waste
7 Discharge Requirements for the County of Orange, Orange
8 County Flood Control District, and Incorporated Cities
9 of Orange County, Urban Storm Water Runoff Program.

10 I want to remind you that this meeting was --
11 the hearing was held open only for items -- only for
12 Section 12.C.1 and 2. We are going to limit our
13 conversation and discussion to just that today.

14 And with that, I'm going to ask Mark if he'd
15 like to introduce the item.

16 MR. SMYTHE: Good morning, Madam Chair and members
17 of the Board. As you said, we're here for part two of the
18 public hearing. As part of the presentation today, I'm
19 going to go through a little bit of the permit timelines
20 since the opening of the public hearing, go through a
21 list of the commenters, and finally, go through the
22 second errata, which you have before you, and do a
23 little bit of emphasis on L.I.D.

24 For the timeline, as you said, on April 24th,
25 the public hearing was opened. On May 1st, Board staff

1 ~~took the comments that were received prior to and at~~
2 that board meeting and revised the M.S.4 permit and
3 released a draft on that Friday, April -- or on May 1st,
4 excuse me.

5 There was a week of public comment. We
6 received 12 -- letters from 12 commenters during that
7 time period, and on May 8th we closed the public comment
8 for written comments on that Friday. On the following
9 Monday, the errata sheet was released, followed by our
10 response to comments.

11 And finally, a second errata sheet, the errata
12 sheet dash two in your package was released earlier this
13 week. By May 8th we had received comments from the
14 following entities -- I believe all of them are here
15 today. So rather than try and summarize their comments,
16 I'm sure they'll be happy to share them with you later.

17 So based on comments from these letters and
18 from the other conversations, teleconferences, e-mails,
19 meetings that we've had prior to it, we came up with an
20 errata sheet two, which incorporates the earlier errata
21 sheet and some additional changes. So what I'll do is I
22 will go through these.

23 MS. BESWICK: And, Mark, these additional changes
24 were a result of comments you received at the meeting
25 and subsequent to it; is that right?

1 MR. SMYTHE: ~~That's correct.~~

2 MS. BESWICK: So you're responding to comments.

3 MR. SMYTHE: So we're responding to everything that
4 we pretty much received prior to the last couple of
5 days.

6 MS. BESWICK: Okay.

7 MR. SMYTHE: All right. The first one is actually
8 outside of the C.1, C.2 area, and it has to do with the
9 de minimus permit. In the past, when cities or county --
10 or the county discharge --

11 MR. RICE: Mark, can I stop you for a second?

12 MR. SMYTHE: Yes.

13 MR. RICE: I just want to clarify that we received
14 a bunch of written comments up until May 8th. And that
15 those subsequent conversations that you've had with any
16 of the parties have been to kind of flush out what those
17 comments were; correct?

18 MR. SMYTHE: That's correct.

19 MS. BESWICK: So it's not like you were taking new
20 information?

21 MR. SMYTHE: No. It was clarification on comments
22 that had been prepared in writing prior to May 8th.

23 MS. BESWICK: That's an important component of
24 today's hearing. Thank you.

25 MR. SMYTHE: With regards to the de minimus permit

1 ~~coverage under this permit, in the past when cities or~~
2 the county discharge portable water or groundwater to
3 their own M.S.4, they had to get coverage and pay the
4 fees associated with our de minimus permit. These are
5 for things like fire hydrant flushing, portable
6 waterline flushing, groundwater pumping.

7 With this new permit, for the most part, these
8 discharges are now covered under the M.S.4, and some
9 final tweaking was necessary to get the language
10 correct. Inadvertently, we had dropped the fact that
11 the cities and the county did not have to prohibit
12 dechlorinated swimming pool water discharges from
13 residential sites, and we need to make sure that that
14 got back into the permit.

15 The next changes have to do with L.I.D. This
16 is the C.1 that was continued from last month. There
17 are a few changes with this. First of all, we've
18 clarified that it was model W.Q.M.P. that was being
19 updated. A lot of this has to do with the timing of
20 when the model W.Q.M.P. and the feasibility criteria
21 needs to be submitted to the Executive Officer for
22 approval.

23 What happens after approval, the 90-day period
24 before this L.I.D. needs to be implemented, and what
25 happens if, in this case after 18 months, that approval

1 ~~is not forthcoming? That was one of the major issues~~
2 that came out of our previous public hearing. This
3 actually seems to have gotten pretty much settled. I
4 don't think there are going to be any comments regarding
5 this, although, I could be wrong.

6 The second issue that was coming back today
7 was C.2, and C.2 is the one that there are still
8 remaining issues. What I'll do is I'll point out some
9 of the major changes that we've made to this section.

10 First of all, we removed the term bio-filter,
11 something that was added as a result of the last public
12 hearing, and have changed to bio-treat. Throughout the
13 permit you'll see this repeated time and time again.

14 It requires what happens if on-site L.I.D. is
15 not used to address the entire design storm flow. If
16 they're not able to address the entire design storm
17 volume on-site, then either that body has to be
18 addressed through C.7, which is off-site L.I.D., or
19 through the process of the in-lieu alternative program.

20 One of the things I need to point out is this
21 and/or. In your errata sheet right now, it says "and."
22 It needs to be and/or because they can either settle it
23 through off-site, anything that they aren't dealing with
24 on-site, or through this, or through a combination of
25 the two, if need be. So that's why that change is

1 there.

2 And finally, one of the other issues that
3 you'll be hearing about today is right here
4 (indicating), is language has been added and was added
5 with the forth draft of the permit that requires on-site
6 L.I.D. to use infiltration, evapotranspiration, and
7 harvest, and re-used as the priority.

8 When those three on-site retaining L.I.D.s are
9 not feasible, cannot be feasibly implemented at the
10 site, at that point you go on to look at bio-treatment
11 systems. And I'm going to be going through the way this
12 section has morphed over the past couple months in later
13 slides. Some of the other changes --

14 MR. THIBEAULT: Mark?

15 MR. SMYTHE: Yes.

16 MR. THIBEAULT: Before you go too far, that's an
17 important concept that you just described. Is it an
18 accident that those three issues are listed as one
19 priority and bio-treat is listed as a lower priority if
20 the first three are not feasible, or is that -- that's
21 an obvious -- or is that an obvious statement of our
22 intent?

23 MR. SMYTHE: There are reasons for that, and I will
24 be going into those in later slides. If you want me to
25 address it now, I can.

1 ~~MR. THIBEAULT: If you're going to go over it~~
2 later, that's fine.

3 MR. SMYTHE: I will as we go to the fourth draft on
4 this.

5 But to get through the rest of the errata
6 sheet prior to getting to those concepts. The issue
7 from the last portion of the public hearing of strategy
8 verses preference verses goal, we've gone with goal.
9 Where infiltration may not be feasible, some of the
10 conditions were here.

11 It did not include groundwater contaminants as
12 part of ground field development. So we added that.
13 And as I said, bio-treatment became the term of choice,
14 and that was used on several places. So it was added to
15 C.7, C.7.A, C.7.B, C, D.

16 And then one of the issues that we have gotten
17 in our written comments was regulated communities'
18 concern that where we talked about on-site retention
19 L.I.D.s not being feasible, that feasible would be up
20 for definition, that if this went to a judge, a judge
21 might say, well, if you can dig a hole and put in a
22 cistern, it's feasible.

23 It may not work. It may not be what you want
24 to do, but it is feasible. So we did put in language
25 saying that feasibility would be based in part on the

1 ~~issues identified within this overall L.I.D. section.~~

2 So that all those issues that are brought up
3 in the various sections, C.4, where it talks about the
4 priority of how to apply L.I.D., the various other
5 sections where it talks about the concerns of L.I.D in
6 some areas for, like, geotechnical issues, for high
7 groundwater issues, for contaminant transport issues.
8 All those that are in C should be taken into account
9 when defining feasibility.

10 MR. PONTELL: May I ask a question?

11 MR. SMYTHE: Yeah.

12 MR. PONTELL: I guess this is something I'm still
13 struggling with, is the word feasible verses -- if
14 feasible does not tend to imply better. And so if it
15 would be better even though it's feasible to handle the
16 water in a particular way, but it would be better to do
17 it another way, my concern is that the word feasible
18 doesn't capture if it were better to handle it a
19 different way.

20 MR. SMYTHE: And I think that's going to be one of
21 the things discussed here is that language. And whether
22 better becomes -- and whose opinion is it better than
23 and what constitutes better?

24 MR. PONTELL: Because when you're defining
25 feasible as based in part on all the other issues that

1 are identified, groundwater levels, soil condition, et
2 cetera, it may be better if there was a half a mile away
3 a state of the art groundwater infiltration system.

4 And it's better to use the storm water drain
5 system to get the water to that system verses trying to
6 duplicate a lesser quality system on-site. So it would
7 be better to do something else even though it's feasible
8 to do the former.

9 MR. RUH: Better is open up to interpretation. One
10 person is saying better being delivered half a mile off
11 site to some kind of a facility might be better to one
12 person, that may not be to another. I think maybe we
13 need to look at what is truly workable and what can
14 be -- what's going to achieve the end result.

15 MR. SMYTHE: This conversation will be continuing.

16 The 12th item on the errata sheet is an
17 important one. It changes the approval of the waivers.
18 Should waivers be applied for, the approval will be by
19 the permittees, rather than going to the Executive
20 Officer for approval.

21 MS. BESWICK: Say that again.

22 MR. SMYTHE: Okay. If waivers are applied for --
23 if they go through -- get some of the storm -- design
24 storm addressed through on-site B.M.P.s, some of it
25 through off-site B.M.P.s, and then still have some

1 ~~design flow that they cannot address through those and~~
2 are applying for a waiver, the permittees will be
3 approving those waivers based on criteria set up in the
4 feasibility criteria document that you will be approving
5 in the future -- that Jerry will be approving in the
6 future.

7 MR. THIBEAULT: It will be what is submitted to the
8 Board for approval, and the approval will proceed
9 through whatever mechanism the Board adopts in the
10 permit.

11 MR. SMYTHE: There will be a 30-day process by
12 which Regional Board staff will have the opportunity to
13 review those waivers before they're approved by the
14 municipalities.

15 The next one is some minor tweaks for T.M.D.L.
16 implementation that came out of the County of Orange
17 comments and suggested language that we had received
18 prior to the May 8th deadline that David Rice had worked
19 with and tried to come up with some changes on.

20 And the final one, which is not in your errata
21 sheet that we did receive after the May 8th, but
22 probably needs to be included is -- and Attachment C at
23 the end of the permit is a list of various agencies that
24 are interested in this permit; includes community college
25 districts, water districts, sanitation districts, school

1 ~~districts and two --- or sanitation districts and water~~
2 districts had not been included, and we're including
3 them at this time.

4 All right. Into C.2. This is what it looked
5 like as part of the third draft from April 10th. This
6 is what we had going into the public -- that last public
7 hearing startup. As part of -- as a result of E.P.A.'s
8 threatened objection to the permit the night before, we
9 added the following language: That the projects that do
10 not comply with this requirement shall meet the
11 requirements established in Section 12.E, which is the
12 in-lieu or alternative program for alternative or
13 in-lieu compliance.

14 What this meant was that anything that was not
15 captured on-site and infiltrated harvest
16 evapotransporated would need a waiver -- would need to
17 go to the E -- 12.E process.

18 Based on the comments that were received at
19 that public hearing, we came up with our fourth draft on
20 May 1st, which included the E.P.A. language, added
21 bio-filtration at that time, now bio-treatment, added
22 bio-filtration and added this language that on-site
23 retention L.I.D. B.M.P.s be considered prior to
24 bio-treatment.

25 Here's where Staff's concern entered into

1 ~~this. If a site could feasibly and, let's say to the~~
2 better, infiltrate 20 percent of the design storm, they
3 could evapotransporate 10 percent, and they could
4 harvest and re-use 10 percent. That's 40 percent that's
5 being addressed on-site.

6 The remaining 60 percent, let's say they treat
7 through bio-treatment and then release that water. It
8 could be that because you're having to build three
9 different systems to address this design storm, it may
10 be cheaper, it may be more logical to some to treat it
11 all through bio-filtration. We've only got one system
12 to build.

13 The idea of L.I.D. is to address the design
14 storm through a wide spectrum of B.M.P.s. Staff felt
15 that this was necessary to include this language to
16 ensure that that wide spectrum is used whenever it's
17 feasible to be used.

18 Was there anything else you wanted to add to
19 that, Jerry?

20 MR. THIBEAULT: Yeah. I think the only other thing
21 would be that this permit is based on a maximum extent
22 practicable compliance metric. And a lot of times doing
23 bioswales, doing grass medians, and the like is the
24 easiest thing to do. It's just easy. Let's all do it.

25 But that's not to the maximum extent

1 practicable. That's not a high enough level of
2 compliance. When we look at permit compliance using
3 whatever combination as Mark described it of B.M.P.s is
4 a -- it's more easily demonstrated to be in compliance
5 with the M.E.P. standard. Just doing the easiest thing
6 is not M.E.P. Doing the most effective feasible
7 approach is M.E.P.

8 And so that was the basis for my earlier
9 question to Mark. We're doing this on purpose. We're
10 suggesting these three things are M.E.P. If you can't
11 do the first three, then the last would be the
12 alternative. So it's purposeful. We think it's M.E.P.
13 We think that anything less than that is not M.E.P.

14 MR. RUH: Right.

15 MR. SMYTHE: All right. Thank you, Jerry.

16 So the fourth draft went out, and we received
17 comments on Friday, May 8th. And on Monday, May 11th,
18 we came out with the first errata sheet. Based on those
19 comments that we received, the word "capture" was
20 removed throughout the permit. "Filter" was changed to
21 "bio-treat," and the language here that kicks things out
22 to Appendix E was bumped down to here (indicating).

23 And what that meant was that not only could
24 you meet the permit requirements by addressing the 85th
25 percentile design capture volume through on-site

1 infiltration, harvest, and re-used and evapotransporate
2 or bio-treatment, but also by off-site L.I.D., which is
3 found in C.7, or by similarly effective treatment
4 control B.M.P.s prior to going down to an in-lieu
5 program.

6 Now, the reason we included this -- it was
7 originally there as conventional with this up here
8 (indicating). When this got moved down, this became
9 more important because this would allow the use of, in
10 the old word, conventional treatment to, we'll use the
11 word "get out of," getting into an in-lieu or an
12 alternate program. And that wasn't Staff's intent.

13 Our concern was in the last permit cycle, we
14 implemented the requirements for S.U.S.M.P.
15 requirements. We implemented the requirement for
16 structural treatment. One of the things that we liked,
17 one of things that we encouraged was regional treatment
18 systems, the natural treatment systems, the constructed
19 wetlands to address a development.

20 Our concern was that as set up with this
21 language up here, if you had designed natural treatment
22 system for existing development, for future development,
23 or planned on using it, all of a sudden you were not
24 only having to do the N.T.S., the Natural Treatment
25 System, the constructed wetlands, but you were also

1 ~~having to do in-lieu treatment. You were having to pay~~
2 into a fund, you were having to do L.I.D. on alternate
3 sites.

4 Our concern was that N.T.S. was at a level
5 high enough that it needed special protection. And so
6 that's why we moved that language down there
7 (indicating). Now, things will change after additional
8 conversations with E.P.A., and I will be showing that
9 for the second errata sheet.

10 MR. PONTELL: I think what you just said is really
11 what my goal is.

12 MR. SMYTHE: I know it is.

13 MR. PONTELL: I just want to make sure I heard
14 that correctly.

15 MR. SMYTHE: Yes, you did hear that correctly.

16 Based on conversations with E.P.A., both
17 John Kemmerer and staff up in San Francisco, we were
18 able to determine that properly designed, maintained,
19 and operated constructed wetlands such as N.T.S. would
20 be considered bio-treatment by E.P.A.

21 As we saw last month and John has mentioned,
22 you can pull up almost any E.P.A. document on L.I.D. and
23 find the definition for L.I.D. that you want. You take
24 it to a step further and what constitutes bio-treatment?
25 It really goes out the door. I mean, I was doing

1 ~~searches, was able to find constructed wetlands listed~~
2 as an L.I.D. toolbox in certain websites, but not on
3 other websites. So that really does raise a concern of
4 what constitutes bio-treatment.

5 And with E.P.A.'s buy-in on N.T.S., Regional
6 Board staff felt comfortable dropping this -- using
7 L.I.D. or similarly effective B.M.P -- or treatment
8 control B.M.P.s or mitigate us. We felt comfortable
9 losing that because N.T.S. would fit into the slot.

10 I think that really was the major one. And
11 again, feasibility criteria was actually expanded even
12 more to include the model W.Q.M.P. and the feasibility
13 criteria. So we're even more trying to define what --
14 give as much latitude as to what constitutes feasible.

15 Finally, what I did was I borrowed a slide
16 from the County, adapted it, made it fit what staff
17 believes is the intent --

18 MR. THIBEAULT: It's very clear.

19 MR. SMYTHE: -- of this portion of the permit. You
20 guys do have it. I think you guys do have -- yeah. It
21 gets tough on some of these.

22 Essentially, if you've got a priority project,
23 you need to capture the 85th percentile design storm
24 capture volume. What you need to do is infiltrate,
25 evapotransporate, or harvest and re-use that design

1 volume. If you are able to do that -- address the full
2 capture volume, you are in compliance. If not, you can
3 go to bio-treatment, and that's discussed in that
4 footnote.

5 If at that point you are doing your full
6 capture volume -- if you've addressed the full capture
7 volume through one of those two, you're in compliance.
8 If not, you go to your feasibility criteria analysis to
9 make sure that you weren't able to do everything up here
10 (indicating).

11 At this point, if you weren't able to capture
12 or treat the whole capture volume there, you go on to
13 off-site L.I.D. If you're unable to address the entire
14 storm -- design storm capture volume and those, then you
15 go into the waiver process.

16 And an important thing to note is that if you
17 are requesting a waiver, if you are unable to treat the
18 entire design storm volume, you still need to treat
19 what's discharging from that site through a normal
20 S.U.S.M.P. type B.M.P.s, and in addition, because you're
21 not doing L.I.D. on that entire storm flow or capture
22 volume, you need to do either a runoff fund or some
23 watershed solution to in-lieu for that portion of the
24 design storm volume that you're not addressing here.
25 Not for the entire thing, just for what you're not

1 addressing here.

2 MS. BESWICK: It's a good chart, Mark. It really
3 does make sense. It's a good chart.

4 MR. SMYTHE: I do appreciate Richard, and I think
5 he might have gotten it from Matt Walker. I did switch
6 around -- this does not represent what the county wants
7 to see, but it represents what staff believes the permit
8 process shows.

9 Should I go into the other de minimus
10 language?

11 MR. RICE: The de minimus language we talked about
12 earlier?

13 MR. SMYTHE: Yeah.

14 MR. RICE: Yeah.

15 MR. SMYTHE: Throwing caution to the wind --

16 MS. BESWICK: Well, let's do that.

17 MR. SMYTHE: The thing that derailed us last time
18 was last minute language additions. This issue had been
19 brought up by a water purveyor within the Newport Bay
20 Watershed in previous conversations. It shouldn't
21 affect things because it's clarifying language. It's
22 not adding any new requirements.

23 And what the situation is, is I explained that
24 we have brought the de minimus permit into the M.S.4 for
25 municipal entities. So where a municipal entity is

1 ~~discharging fire hydrant water or portable water, they~~
2 are no longer getting coverage under our general de
3 minimus that applies to everybody. They're doing it
4 under their M.S.4 permit. The exception is Newport Bay.

5 And the reason that Newport Bay Watershed is
6 accepted is because of the selenium issues and the
7 nutrient issues, the T.M.D.L. issues. It was always
8 Staff's intent that this inclusion of the de minimus
9 permit in Section 3 point 2.A of our M.S.4 would not
10 include the Newport Bay Watershed. And the comments we
11 received was it may not be interpreted that way and to
12 clarify it.

13 So that language is there and would need to be
14 included along with the errata sheet that you have
15 before you along with the two -- the water districts and
16 the sanitation district that I had mentioned and that
17 and slash or in C.2 would need to be added to any errata
18 sheet.

19 MS. BESWICK: I was just going to say, when you're
20 done, why don't we leave this up since we don't have it
21 in front of us.

22 MR. THIBEAULT: Is that in print anywhere?

23 MR. SMYTHE: Not enough copies, but we can make it
24 though. Yeah, we can make more.

25 MR. THIBEAULT: Does the Board have it?

1 ~~MR. SMYTHE: No, the Board does not have it. No,~~
2 that's it.

3 MS. BESWICK: Is that it?

4 MR. SMYTHE: That's it for now.

5 MS. BESWICK: Great work. Thank you.

6 MR. SMYTHE: Any questions?

7 MS. BESWICK: Does anyone have any questions for
8 Mark?

9 MR. PONTELL: Let me -- let's just go back to this
10 feasibility issue because I'm still -- after looking at
11 your chart, I would think that we would want to
12 encourage communities or groups of communities to come
13 up with multiple beneficial solutions that may not be
14 site-specific.

15 And so going back to the concept of creating a
16 wetlands that can have habitat benefits, wildlife
17 benefits, can have a variety of other benefits that are
18 maybe beyond the goal of this particular permit, have
19 ended the process of handling runoff from either
20 modifications of existing developed property or new
21 developed property, that water was able to feed into a
22 subregional system, it would be better than specific
23 site-by-site solutions.

24 And so going back to the prioritization of, if
25 it was feasible, to capture and infiltrate,

1 ~~evapotransperate, or harvest re-use, all the water on a~~
2 particular piece of property, but it was better to allow
3 that water to go into a subregional solution, I do not
4 see our chart allowing that to occur.

5 MR. SMYTHE: You know, I do apologize for being
6 very focused on C.1 and C.2. It's kind of -- I've been
7 obsessive for the past few weeks. There is a section in
8 D.5, which is the watershed master plan, and Michael, I
9 would ask you to comment a little bit more on this, but
10 it's my understanding that this would maybe address your
11 concern.

12 MR. ADACKAPARA: I think what we have done is we
13 have provided the permittees -- actually this is a
14 mandated requirement under Section D.5. It says the
15 permittees are required to develop watershed master
16 plan, and we are hoping that concerns, just like what
17 Mr. PonTell expressed, will be completely addressed in
18 the watershed master plan.

19 MR. PONTELL: So in the event there's a watershed
20 master plan, then that would allow for --

21 MR. SMYTHE: It's page 57.

22 MS. BESWICK: Thank you. It's D.4? Is that what I
23 heard?

24 MR. SMYTHE: D.5.

25 MR. ADACKAPARA: D.5, pages 57 and 58.

1 ~~MS. BESWICK: So it's addressed elsewhere in the~~
2 permit, Steve. Do you see where that is?

3 What we're talking about in 12.C.1 and 2 is
4 not going to address your concern to the extent that
5 it's going to be addressed in this portion of the print
6 out.

7 MR. THIBEAULT: Or it already has been addressed.
8 I think, Mr. PonTell, that this Board has always
9 expressed its support for regional systems, and I'm not
10 sure how anybody could say that a proposal to use a
11 regional or subregional system that achieves the same
12 net results, would not be acceptable.

13 I can't imagine that because everything would
14 be based on is it an equivalent level of capture,
15 harvest re-use, evapotranspiration then what would be
16 achieved on-site? If it's the equivalent of what would
17 be achieved on-site, how would it not be a compliant
18 approach?

19 MR. SMYTHE: I wouldn't want to come before you
20 arguing against something like that.

21 MS. BESWICK: And it would be out of character for
22 you to do that.

23 MR. THIBEAULT: The Board has expressed that on the
24 record many times.

25 MR. PONTELL: Thank you.

1 ~~MS. BESWICK: Other questions for Mark?~~

2 MR. RUH: Just very quickly, Madam Chair and for
3 the public, I unfortunately will have to leave. I have
4 a meeting in Diamond Bar at 12:15. So I'll need to
5 leave about 11:15. It's unfortunate. It's due to the
6 weekend and the time frames. Hopefully we'll be able
7 to --

8 MS. BESWICK: That's really a problem because we
9 need to take a vote today, and you're our quorum.
10 Thanks for the update, but I'm not sure that I can get
11 us through it that fast. We'll try.

12 MR. RUH: Hopefully we can do what we need to.
13 Thank you.

14 MS. BESWICK: Thanks, Mark.

15 Before we open this, I'd like to ask for David
16 to give us some procedural comments, if you would.

17 MR. RICE: Thank you, Madam Chair. Before we move
18 on to what I expect to be a very lively, and hopefully
19 very short discussion, we need to handle a little bit of
20 housekeeping.

21 As you know, at the April 24th meeting you
22 closed the hearing -- the Board closed the hearing
23 and accepted -- allowed comments on two very specific
24 sections in the permit written comments up until
25 May 8th.

1 ~~And we have received~~ ~~and actually you have~~
2 received directly several late comments, and so we need
3 to figure out how the Board would like to address those
4 and deal with those comments. I'd like to give you
5 maybe two general possibilities, and they get more
6 complicated --

7 MS. BESWICK: Do you want me to just tell you what
8 my inclination is?

9 MR. RICE: Please do.

10 MS. BESWICK: I've said at the April 24th meeting
11 we would not take comments after May 8th, and we won't.

12 MR. RICE: Okay. Well, then that clears up at
13 least one procedural issue. And to the extent that any
14 of the Board members did directly receive any comments
15 from parties here and did read them, please disregard
16 those in consideration -- in rendering your decision on
17 the permit.

18 And I would like to raise one other issue.
19 The errata sheet did include changes not only to the
20 portions that were left open for comment -- written
21 comment until May 8th, but also to other areas of the
22 permit, and I expect that some folks here would like to
23 make comments on those errata changes to other portions
24 of the permit.

25 And as the hearing is currently designed and

1 ~~scheduled, the Board is going to allow comments only on~~
2 sections 12.C.1 and 12.C.2. The Board is under no
3 obligation to consider any comments to any other parts
4 of the permit, even those that there were errata changes
5 made to.

6 But I expect that there will be some parties
7 in the audience who would like to make comments. They
8 may certainly ask if the Board will allow comments on
9 other portions of the permit, but it's certainly within
10 the Board's discretion to neither accept or reject
11 those.

12 MS. BESWICK: Let me comment to my colleagues with
13 your -- see how you feel about this. My inclination
14 again is to treat those other items as not something we
15 would focus on today.

16 It is the norm for us to have the staff bring
17 to the Board potential changes based on input that they
18 received from the time that we first hear something, and
19 we take action on it. And that's the case in my mind
20 today that we are being asked as a Board to deal with
21 some of these things based on Staff's comments.

22 So my intent, unless anyone disagrees with it,
23 is to limit the conversation to the items that we agreed
24 that we were going to be discussing today.

25 MR. RUH: Absolutely.

1 ~~MS. BESWICK: Part of my reason for that is, I~~
2 really am not going to allow this permit to be opened up
3 for an entire discussion again. I don't see how we
4 avoid that unless we stick to the rules we set for
5 ourselves in April.

6 MR. RUH: I concur.

7 MR. FRESCHI: I concur.

8 MR. PONTELL: Can we make a motion to limit public
9 comment to one minute per person?

10 MS. BESWICK: Let me tell you what. I'm going to
11 be watching the clock. I've been through your cards.
12 No, I won't hear 10 minute presentations. No, there
13 won't be powerpoints. No, there won't be -- we'd like
14 you to try and make three minute comments.

15 We have had a very thorough discussion of
16 these things on April 24th. We -- I think are pretty
17 clear about what's being proposed today. So I'm going
18 to be a little firmer than you might be used to me being
19 at a meeting, but you'll find I can be.

20 So we'll begin with -- David, did you have
21 anything else you wanted to say?

22 My only other comment then is just to remind
23 you, we're only talking about the issues that we said we
24 would talk about. We are not going to entertain late
25 comments. The three minute thing -- we understand

1 ~~bio-treatment. We don't need to be re-educated to it.~~

2 We got a very complete picture on the 24th.

3 With that -- with those comments, I would ask
4 Mary Ann Skorpanich if she would like to begin. And
5 please know, I'm going to watch the clock, and at three
6 minutes I'm going to ask people to stop.

7 MS. SKORPANICH: With all due respect, we'd like to
8 just change the order a little bit.

9 MS. BESWICK: Absolutely. However you'd like to do
10 it.

11 Is this Richard then?

12 MR. BOON: Yes.

13 MS. BESWICK: Identify yourself for the court
14 reporter.

15 MR. BOON: Richard Boon. I represent the County of
16 Orange, which is the principal permittee for the Orange
17 County Storm Water Program. I'm responsible for
18 managing the countywide elements of the Orange County
19 Storm Water Program. Our presentation, I do have a
20 powerpoint presentation. I would ask that as a
21 principal permittee --

22 MS. BESWICK: Not today.

23 MR. BOON: This is a really -- we're focused on C.1
24 and C.2. It is a critical issue.

25 MS. BESWICK: I'm not going to hear it. We're not

1 ~~going to have time for a 10 minute powerpoint~~
2 presentation.

3 MR. BOON: It won't be 10 minutes.

4 MS. BESWICK: You can have three.

5 MR. BOON: We can try to get through it in three.

6 MS. BESWICK: So let's really focus on the
7 highlights. And I have to say, I'm a little skeptical
8 when I see this many pages of powerpoint that we're
9 going to make it in three. So I wouldn't bother with --
10 I'd move right on to what you really want to say.

11 MR. BOON: Obviously, as you observed, reaching
12 consensus has proven to be very difficult. The
13 permittee positions over the course of consideration of
14 this permit, April 24th we were prepared to support
15 adoption of the permit, but we withdrew our support
16 following an errata sheet that was presented to us on
17 April 24th.

18 May 19th, we were again prepared to support the
19 permit adoption, and we regret that we had to withdraw
20 our support following another errata sheet.

21 Our main point today is that L.I.D. and
22 traditional structural B.M.P.s are similarly effective
23 protecting water quality. We've examined the
24 performance of B.M.P.s extensively in Orange County. We
25 had a consultant report prepared by R.B.F. and an expert

1 ~~from the University of Texas in 2003, updated~~
2 significantly in 2005, and it recommended for use in
3 Orange County a variety of B.M.P.s, both traditional
4 structural and types that would be considered low impact
5 development.

6 The permittee position is that we support the
7 prioritization of B.M.P.s of L.I.D. and S.U.S.M.P
8 B.M.P.s, but that a water quality volume that cannot be
9 captured by L.I.D. B.M.P.s should be, for a project
10 proponent, be able to be treated using standard or
11 traditional S.U.S.M.P. type B.M.P.s.

12 Now Mac Walker with Larry Walker Associates is
13 going to present a study that underscores that point.

14 MR. WALKER: Do I have three minutes?

15 MS. BESWICK: Yes, you do.

16 MR. WALKER: Next slide, please.

17 What we basically did was, we wanted to
18 look -- have a side by side comparison of low impact
19 development strategies verses what we call traditional
20 or conventional B.M.P.s. So what this means is, we took
21 three case studies, and in the first case study, the 100
22 percent L.I.D. retention, that's the one you get to
23 pass. You don't have to get a waiver.

24 Case two is if you have 50 percent L.I.D.
25 on-site, but you had to treat the rest before leaving,

1 ~~you have to get a waiver.~~

2 And finally, the third case where we just
3 couldn't do L.I.D., we went with traditional B.M.P.s.
4 Again, you have to have a waiver for those -- case two
5 and three.

6 So what we did is, is we set up a continuous
7 simulation model. We took a site -- next slide,
8 please -- and we looked at the loadings off of this
9 acreage, 2.7 acres. It's a commercial site runoff
10 coefficient about .74, and we ran -- we calculated the
11 loads coming off that site using the rainfall data for
12 Orange County. We used 10 years of data.

13 So we plugged in the data, calculated the
14 loads coming off that site for each of those three cases
15 that we talked about.

16 One other thing I want to point out here is,
17 when we talk about conventional or traditional B.M.P.s,
18 we're talking about a detention basin, and we assume
19 that the water coming out of the well-designed
20 maintained detention basin was going to be around 40
21 milligrams per liter. And we used total suspended
22 solids as our surrogate to look at.

23 And the next slide is really the slide we want
24 to present. It's a little bleached out here. I'm going
25 to point out -- the green line is the site without any

1 controls. That's what we had before S.U.S.M.P., no
2 treatment controls, nothing. The yellow line is case
3 three. That's where we can't do any L.I.D. on-site, but
4 we're using all that water, and we're sending it through
5 a conventional treatment control B.M.P.

6 Case one, which is the blue line, which is the
7 best performing scenario, is L.I.D. 100 percent. You
8 may say, well, how could that be? Because L.I.D. is
9 retaining it on-site.

10 What it is, is your standard is to capture and
11 retain the three quarters inch storm. In California
12 where we have that frontal-type rainfall events, you get
13 storms that come in back to back, and you end up using
14 the capacity of the L.I.D. on-site, and the rest of it
15 has to go and be discharged off-site without treatment.

16 So the bottom line is our overall removal --
17 solids removal for conventional treatment is 78 percent,
18 while the L.I.D., 100 percent L.I.D. strategy, is only
19 83 percent. That's a five percent difference.
20 Although, in your scenario, we have to go and get a
21 waiver for that five percent.

22 Sorry. Are my three minutes --

23 MS. BESWICK: Getting close.

24 MR. WALKER: This is important stuff.

25 MS. BESWICK: I agree, but you need to move it .

1 along.

2 MR. WALKER: I appreciate that.

3 Just to keep this in context, we did a
4 sensitivity analysis where we changed some of the input,
5 and the bottom line is it still kind of came real close.
6 The best case scenario is L.I.D. verses traditional
7 verses suspended solids was within one percent overall.
8 This is for 10 years of data, by the way. We are within
9 one percent. The best case for L.I.D. in this -- in
10 these sensitivity was 10 percent difference. It's
11 really bracketed. It's a very small window.

12 So anyway, the bottom line is we feel that a
13 waiver is inappropriate -- or not inappropriate, but
14 maybe not consistent with the ability of traditional
15 B.M.P.s well-designed and maintained to treat and
16 discharge good water quality.

17 MR. THIBEAULT: I think that what Mr. Taylor -- or
18 Mr. Walker just showed us looks sort of like -- if you
19 can look at the case three at -- I don't know, 1,100
20 kilograms and the L.I.D. at 700 kilograms, it looks like
21 maybe what you've demonstrated to us is, it's about 40
22 percent better to use full L.I.D. than it is the
23 conventional -- just using your data.

24 MR. WALKER: That's not the way I would look at it.

25 MR. THIBEAULT: I think it's what the graph shows

1 us. And you have kind of a scale issue here, too, by
2 having such a large -- or is it small -- scale. It
3 doesn't really differentiate the three cases very
4 clearly when there is a significant difference between
5 the three.

6 MR. WALKER: Well, I would maybe not agree with
7 you.

8 MS. BESWICK: And that's okay.

9 MR. WALKER: I wouldn't agree with you. I suppose
10 that's up for another time.

11 MS. BESWICK: Thank you.

12 MS. SKORPANICH: So what we're arguing today is for
13 re-inclusion of similarly effective treatment control
14 B.M.P.s back into the language in Section C. Our
15 position is that this is the N.P.D.S. program. It is to
16 control the discharge of pollutants, and we see L.I.D.
17 and support L.I.D. as a means toward that end, but not
18 an end unto itself.

19 We feel that the exclusion of that particular
20 phrase then puts a punitive mitigation on projects where
21 it has been deemed infeasible to be able to do this
22 on-site and to have to go through a waiver, still do the
23 treatment of that 85th percentile storm, but do
24 mitigation in addition to it.

25 We are trying to argue here that a project

1 ~~should not be penalized because it's using things that~~
2 are similarly effective where it's infeasible to do it
3 on-site.

4 Next slide, please.

5 And again, that's -- next slide. One more.

6 And so we're arguing for this phrase to be
7 reinserted in there. There really has not been a
8 technical basis for why L.I.D. should be the end as
9 opposed to the means in this particular case. And we
10 think that those similarly effective B.M.P.s where it's
11 infeasible to do the L.I.D. on-site should not have to
12 go through the waiver provision.

13 Am I out of time?

14 MS. BESWICK: That's it.

15 MS. SKORPANICH: Thank you.

16 MS. BESWICK: Thank you.

17 Do we have someone following on in that, or
18 may I just continue through the cards that I have?

19 MR. CARLSTEDT: I believe my card is next.

20 MS. BESWICK: Are you Tim? It is Tim. Thank you.

21 MR. CARLSTEDT: My name is Tim Carlstedt. I'm an
22 Environmental Counsel for the County of Orange. Good
23 morning.

24 Just as a procedural matter, as usual, we just
25 want to make sure that all the County's written

1 ~~submittals have been included in the administrative~~
2 record. I have a complete copy set here. I would just
3 ask to present them to make sure it's in the record.

4 On the legal issues, I just want to follow up
5 with the technical presentation that's been made with a
6 legal justification for making this change to the permit
7 language. And, again, the only change is just by adding
8 this one additional phrase it would put traditional,
9 similarly effective treatment control B.M.P.s back into
10 the mix without requiring a waiver or some kind of
11 payment -- and/or some kind of payment into an in-lieu
12 fund or runoff fund.

13 There's two legal -- at least two legal basis
14 for adding this language back. The first, I'm sure
15 you're familiar with Water Code Section 13360A, which
16 prohibits the Regional Board from prescribing the matter
17 of compliance with a standard.

18 So in other words, you can set the standards,
19 the standard here is M.E.P., the permittees have the
20 discretion as to how to meet that standard. And there's
21 been a lot of discussion here. If you have good
22 so-called traditional B.M.P.s, why should you be
23 penalized from using them? That's a pragmatic question,
24 but legally, the Water Code prohibits the Water Board
25 from telling permittees how to meet a standard.

1 ~~If you have similarly effective options,~~
2 permittees should be able to use any one of those
3 options in their toolbox. They shouldn't be penalized
4 by having to seek a waiver and paying some kind of
5 in-lieu fund when there's not a justification for it.

6 The second basis is it's arbitrary. If there
7 hasn't been established that this sub set of L.I.D. or
8 L.I.D. generally is always superior to S.U.S.M.P.
9 treatment control B.M.P.s. And by the way, S.U.S.M.P.
10 treatment control B.M.P.s are throughout Section 12.B,
11 12.G, 12.I.

12 The permit is premised on permittees using
13 these types of treatment control B.M.P.s, and yet now,
14 12.C.1 and 2 would seem to say that you can't use them
15 unless you get a waiver and pay some money. So it's
16 arbitrary. That's a legal basis for adding this
17 language back in, which would make the permit not
18 arbitrary.

19 With the last minute of my presentation I was
20 going to ask permission to address the technical
21 T.M.D.L. issue, that had been tweaked with respect to
22 Coyote Creek T.M.D.L.s, but I understand that that is
23 not to be accepted.

24 I appreciate your time, and that's my two
25 minutes.

1 ~~MS. BESWICK: Thank you very much.~~

2 John Kemmerer.

3 MR. CARLSTEDT: Were there any questions?

4 MS. BESWICK: Let me stop before John comes up.

5 Does anyone have any questions for the permittee?

6 Because that really was their presentation. It seems
7 very clear.

8 MR. KEMMERER: Thank you, Madam Chair. Again,
9 John Kemmerer with E.P.A. I'm an associate director of
10 the water division in E.P.A. Region 9. We're working
11 very closely with the Regional Boards across the state
12 and with the State Board on storm water permits, and I
13 want to really commend the work that your staff has done
14 on this permit, which I believe is really a model for
15 how low impact development can be addressed for permits
16 really across the state and country.

17 I think it's important not to lose site -- of
18 one of the reason -- there's a lot of reasons why we're
19 encouraging L.I.D. and why the staff here are putting
20 L.I.D. provisions in this permit because of the many
21 benefits of L.I.D.

22 In situations where we have these drought
23 conditions across the state, infiltration into
24 groundwater is a really huge benefit, and I just think
25 that having an L.I.D. section in this permit and having

1 ~~these clear provisions in this permit on L.I.D. is very~~
2 critical.

3 I want to -- we definitely support the changes
4 made in errata sheet two. I think the version that the
5 staff have come up with is actually much superior than
6 what I provided three days before the last hearing, and
7 so we would definitely endorse the permit as written. I
8 want to respond real quick --

9 MS. BESWICK: John, I can't stand it. Three days
10 before? How about the night before? Oh, nevermind.

11 MR. KEMMERER: It wasn't the night before.

12 I guess what I want to also point out is that
13 I'm a little concerned about the last presentation about
14 saying that if you can't contain the storm water
15 on-site, you need to go to a waiver. I think your staff
16 have come up with a really clear and detailed and
17 flexible process for how you comply with the L.I.D.
18 section.

19 And if you cannot contain the storm water
20 on-site, there are a number of options in 12.C.7 for
21 doing subregional or regional solutions here. I
22 definitely agree with Jerry's analysis of the fact that
23 using L.I.D. and trying to use these on-site containment
24 approaches is M.E.P. -- is consistent with the M.E.P.
25 approach. And so the idea of prioritizing those on-site

1 ~~methods is a benefit.~~

2 And I also just want to echo Mark's comments
3 earlier about the big variability in the definitions on
4 what bio-treatment are. I think you got -- your permit
5 here has a really clear approach that's laid out where
6 you're now going to be able to define exactly what you
7 wanted to define bio-treatment as in the W.Q.M.P.
8 document that's prepared.

9 I think there's been a huge amount of work
10 done by everybody involved in this, and I really
11 encourage you to adopt this today. I think it's a very
12 flexible and detailed and thorough approach.

13 MS. BESWICK: Thank you.

14 Bart Lounsbury.

15 MR. LOUNSBURY: Good morning, Madam Chair and
16 members of the Board. I am Bart Lounsbury with the
17 Natural Resources Defense Council. I will skip my
18 powerpoint today to try to make this go a little bit
19 more quickly.

20 Basically, you'll hear the same concern from
21 us that we mentioned last time, which is that we think
22 this should be an on-site retention standard for the
23 reasons mentioned by staff, that that is a superior
24 treatment method. It can ensure that no pollution flows
25 off-site.

1 ~~And this is not an argument as I think people~~
2 have mentioned today about the definition of L.I.D.
3 It's an argument about the most effective treatment
4 B.M.P.s, and that means retention. It is more
5 effective, even as the County's consultant studies
6 showed, it's still more effective than conventional
7 treatment B.M.P.s no matter the margin we're talking
8 about.

9 That's necessary then for this permit to meet
10 the M.E.P. standard. And in fact, you probably all know
11 that recently the Ventura County M.S.4 permit was
12 adopted by the L.A. Regional Board. That has an on-site
13 retention standard that does not include bio-treatment
14 as an option.

15 It requires, essentially, the retention
16 on-site of the 85th percentile storm with off-ramps for
17 situations of technical infeasibility, which is what
18 we've always advocated. This permit draft with the
19 errata sheet is close to that except that it allows
20 bio-treatment, which we don't support.

21 So overall in looking at this, I would just
22 say that if you look through the flow chart that staff
23 have come up with, we fully support that flow chart
24 except where it includes bio-treatment. We think that
25 that should be something permittees can do on-site to

1 deal with any sort of discharge that they may have or
2 toward the on-site retention standard that we would
3 advocate, but that some sort of off-site mitigation or
4 in-lieu fee payment should be required for that portion
5 that is bio-treated.

6 But otherwise, we think that flow chart very
7 well summarizes what's necessary to meet the M.E.P.
8 standard here. We certainly would not support anything
9 like the County recently proposed here that would allow
10 similarly effective treatment B.M.P.s to be installed
11 on-site. That's, in our opinion, subject to far too
12 much discretion.

13 The term bio-treatment, as people have
14 mentioned, is highly variable. It has many definitions,
15 and that's what makes us worried. If you say on-site
16 retention, you need to keep it on-site. You know what's
17 happening. It's staying on-site, it's infiltrated,
18 evapotranspired, or re-used.

19 If you allow bio-treatment, you just don't
20 know how effective these B.M.P.s are going to be. And
21 I'm sure that in the study you just saw, the most
22 effective conventional treatment B.M.P.s were chosen,
23 and they still did not perform as well as L.I.D.
24 retention B.M.P.s.

25 So that's our perspective. Thank you for the

1 ~~opportunity to testify today.~~

2 MS. BESWICK: Thank you.

3 Mary Lynn Coffee, followed by Peter Herzog.

4 MS. COFFEE: Good morning. I'm here on behalf of
5 the City of Irvine. The City believes it's critical
6 that all water quality control L.I.D. bio-treatment
7 B.M.P.s remain available in the toolbox for use for
8 treat and release of water on-site in accordance with
9 the prioritization that's set forth in C.4 and C.7, but
10 without a waiver. We think that's what the flow chart
11 says. If that's what it says, we support that flow
12 chart.

13 With respect to the prioritization under C.4
14 and C.7, we believe it's critical that a broad variety
15 of factors can be considered as defined as feasibility
16 factors. And those factors need to include not only
17 what we think of as technical feasibility, like high
18 groundwater and impermeable soils and the potential for
19 mobilization for groundwater pollutants, and the
20 potential for geotechnical hazards, but also need to
21 broadly consider environmental factors and environmental
22 policy factors like the need for infill development
23 compliance with S.P.375, encouragement of redevelopment
24 of brownfield sites and the potential for sort of
25 excessive costs as well in light of these social and

1 ~~environmental goals and a comparison of the water~~
2 quality benefit achieved in light of any costs in that
3 regard.

4 So if all of those things -- including, I
5 might add, whatever the master plan says and whatever
6 adverse effects may be created for reclaimed water
7 production. I do think we have to look at the potential
8 for adverse affects on reclaimed demand with on-site
9 retention, and take that into account as well. If those
10 all constitute feasibility factors, then we're in
11 support of this approach as well.

12 The only thing we would add is that we're not
13 quite clear -- there's been a lot of discussion this
14 week about what the various errata versions say and what
15 the flow chart says. So if that could be clarified on
16 the record today. So we all know how to interpret it
17 when we're going forward to develop the revised model
18 W.Q.M.P., I think it would be very, very helpful for the
19 permittees.

20 And finally, I might mention, we did have a
21 conference call with staff to clarify performance based
22 compliance with the E.P.A. technical waste load
23 allocations that have been included in this permit, and
24 staff had indicated in that conversation that they were
25 going to make some changes --

1 ~~MS. BESWICK: We're now stepping away from the item~~
2 that we were to be discussing today. I'm sorry.

3 MS. COFFEE: If they could clarify what they mean
4 because they were going to make changes in the permit
5 per the conference call, and they didn't happen. So we
6 are really unclear on where they stand.

7 MS. BESWICK: Then maybe huddle up with staff while
8 you're here today, and see if you can get an answer to
9 that. Because it's not something we are going to be
10 entertaining at this point.

11 Is Peter Herzog here?

12 MR. HERZOG: Yes. Good morning, Madam Chair and
13 members of the Board. My name is Peter Herzog. I'm the
14 Mayor Pro Tem of Lake Forest. Came here today for one
15 purpose, and it seems like it's changed dramatically.

16 Back when we met in April, you were on the
17 third version, and it seems like the only thing that has
18 happened since the April hearing is confusion. So at
19 this juncture I think the only prudent recommendation is
20 to adopt the third version.

21 Because since then there's been discussions,
22 there's been changes, and as was just pointed out,
23 there's even confusion existing, and I have to admit in
24 trying to follow this, I'm not really sure that we know
25 what's going on.

1 I think Board Member PonTell was extremely on
2 point when he said that you need the maximum
3 flexibility. I can tell you particularly under the
4 current dynamics in this state that for cities to
5 propose and complete public works projects, we need
6 maximum flexibility.

7 And the concept of retaining on-site
8 everything that's from a road is essentially not
9 feasible. And so this is in C.2. And so the key thing
10 is we need bio-treatment. We need it on-site and
11 off-site. We need that bio-treatment, and we need it
12 badly.

13 Secondly, as I mentioned, I do think you need
14 to adopt the third version at this point. I will also
15 point out -- and because you'll hear a lot more about
16 bio-treatment and why it is so important --

17 MS. BESWICK: We're really clear on that. It's
18 included and it's a part of this --

19 MR. HERZOG: Well, from listening in the audience
20 and the way the record stands now, what we have is a
21 conflict between Section C and Section D. And having
22 been travelers for many years, you can ride a truck
23 through that confusion. The fact that you have
24 bio-treatment in one area and not in another area, that
25 creates confusion.

1 ~~MS. BESWICK: I think the bio-treatment goes all~~
2 the way through the document now.

3 MR. HERZOG: No. Actually -- because if you look
4 at the C Section, but then you look at Footnote 56, all
5 of a sudden bio-treatment is changed. Footnote 56
6 creates confusion. It creates confusion that's going to
7 cause a lot of trouble.

8 If D.5 is what you really want to do, then
9 just make C consistent. That's all you need to do.
10 Then it's clear that bio-treatment can occur on and
11 off-site, we can use reasonable sources, and we can
12 actually move forward with really focusing on the best
13 way to achieve clean water. That's what everybody's
14 objective is.

15 I do have to comment for the record, moving on
16 to the process, our city is in the Newport Bay
17 Watershed. There has been language that was
18 presented -- it was on the screen for a couple of
19 minutes. My public works director and my water quality
20 specialist from the City of Lake Forest is here.

21 We tried to talk about what about that, and we
22 don't know. We don't know if it's good, bad, or
23 indifferent. Here is another last minute change that
24 we're supposed to try to address, yet we're being told
25 we can't talk about it.

1 And in 15 years as a public official and
2 having gone through many meetings through a variety of
3 committees and commissions that I'm on, I have never
4 heard, ever, that you close comments May 8th, and that
5 nobody is allowed to provide written comments after that
6 or that something that appears today cannot be commented
7 upon. I'm just stunned.

8 MS. BESWICK: Let us respond to that.

9 MR. THIBEAULT: The need to comment on something
10 that doesn't change for your city is -- it's hard to
11 understand why that is a due process issue for you. As
12 you know from reading it and your public works director
13 knows very clearly, that doesn't change anything for
14 your city. Nothing changes.

15 MR. HERZOG: Well, Mr. Thibeault, I don't know. I
16 talked to them directly, and we don't know that. We
17 should been given the prudent opportunity to look at it,
18 consult it. I have never heard of a public process
19 where things come up at the last second like they did in
20 April and now, where you can't comment on them. That's
21 just unheard of.

22 MR. THIBEAULT: Nothing changes.

23 MR. HERZOG: Well, I'm just for the record
24 indicating that to me, the process that has been laid
25 down today by your attorney is inappropriate, is not

1 ~~supportable, and quite frankly, it really defies the~~
2 public process that should exist to really come to grips
3 with getting a permit that everyone agrees on.

4 You will hear all the technical stuff, and I'm
5 not going to go back into it, but I wanted to put that
6 on the record because I am just stunned.

7 MR. THIBEAULT: I would just also put on the
8 record, Mr. Mayor, that that is incorrect, that nothing
9 changes.

10 MR. HERZOG: Well -- and this is what lawsuits are
11 made of.

12 MR. THIBEAULT: Yes, sir.

13 MR. FRESCHI: I have a question.

14 MS. BESWICK: Yes, please.

15 MR. FRESCHI: Mr. Thibeault, you said nothing
16 changes. I'm not quite sure I understand what that
17 means, but it sounds like what we're saying is that
18 we're not going to pay attention to the testimony.

19 MR. THIBEAULT: No, sir. What it means is that the
20 proposal made for the Newport Bay Watershed addresses
21 de minimus discharges in the watershed that are in line
22 with the existing policy that is already in place
23 adopted by this Board. And so that language simply
24 clarifies that nothing has changed with respect to what
25 is being proposed for discharges within that watershed.

1 ~~MR. FRESCHI: And while I have you~~

2 MR. THIBEAULT: Is that okay?

3 MR. FRESCHI: Yes.

4 MS. BESWICK: And do you want to see that -- do you
5 want us to bring that text up again? Oh, there it is.
6 I'm sorry. It is up. I thought it was on a different
7 slide.

8 MR. FRESCHI: I would like you to comment on the
9 resolution that was proposed by Orange County. There
10 was -- I don't see anything wrong with Orange County's
11 resolution that was up on the sheet. I'd like to
12 understand exactly where you're coming from.

13 MS. BESWICK: Can we finish the -- can you hold
14 that question and let us finish. That's a very good
15 question. It's one I have sitting here, too, and I have
16 notes on it, but if you don't mind, I'd like to get
17 through the -- is that all right?

18 MR. FRESCHI: Yes.

19 MS. BESWICK: So if we could just finish up with
20 the public hearing part. That's a point that I think we
21 need to discuss.

22 Vaikkol Allen, and that's going to be followed
23 by Jason Uhley.

24 MR. ALLEN: Good morning. My name is Vaikkol Allen
25 with Contech Storm Water Solutions. I'll be as brief as

1 possible here.

2 There seems to be an assumption here made on
3 the part of some of the prior presenters that if the
4 85th percentile storm is not infiltrated or retained
5 on-site, then somehow we have not met the L.I.D.
6 standard, or we have failed in our obligation there.

7 I just want to reorient a little bit just to
8 say that L.I.D. really is a process of -- it's a process
9 of prioritizing runoff production and simulating
10 predevelopment hydrology where ever possible in a
11 developed situation.

12 I think the permit in its current form,
13 especially with the additions suggested by the County do
14 a good job of that. It prioritizes on-site retention.
15 You need to do that where ever it's feasible. And if
16 that's not feasible for whatever reason, there needs to
17 be options left for managing that storm water prior to a
18 waiver.

19 Where I differ, and what I think is a new
20 comment you haven't heard yet is the term bio-treatment.
21 I don't feel like that's a sufficiently useful or
22 precise term. As noted before, it can encompass a wide
23 variety of things, some of which are less effective,
24 definitely less effective, and you'll see this in the
25 testimony that are provided as written comments.

1 ~~Then some conventional treatment controls, for~~
2 example, sand filters have no biological component, yet
3 are more effective for important pollutants like
4 phosphorus, total suspended solids, total copper, total
5 zinc then would be filter strips or soils, which would
6 be considered bio-treatment.

7 So to go to bio-treatments or bio-filtration
8 and excluding conventional controls, it actually
9 violates the M.E.P. standard. I think that point has
10 been made, and I just want to echo that there.

11 So my final summary, I would just say that
12 bio-treatment I think is an inappropriate word to
13 include there. It should just say treatment of
14 pollutants of concern to the maximum extent practicable
15 or of pollutants of concern on-site with moderate or
16 highly effective B.M.P.s.

17 Something to that effect that is a performance
18 qualifier as opposed to just whether or not it has
19 something green in it. And that's really all
20 bio-treatment does for you. Just ensures that there's
21 something biological, which has really little to do with
22 performance.

23 Thank you.

24 MS. BESWICK: Jason, followed by Matt Yeager.

25 MR. UHLEY: Good morning, Madam Chair and members

1 of the Board. My name is Jason Uhley. I'm with
2 Riverside County Flood Control Water Conservation
3 District.

4 What I'd like to simply propose today is an
5 amendment to Footnote 56 to simply change it to require
6 that filtration B.M.P.s be maximized or that maximized
7 infiltration and evapotranspiration opportunities within
8 those B.M.P.s. And in support for that I'd like to
9 quote a 2007 E.P.A. study that says, "Filtration
10 practices offer many of the same benefits as
11 infiltration, such as groundwater recharge, increasing
12 stream base flow, and reductions in thermal impacts to
13 receiving waters."

14 And our own county has been working on putting
15 together an L.I.D. design manual for several years now,
16 and one of the critical components of that manual was
17 integrating site design with the L.I.D. concepts using
18 the B.M.P. criteria, and we came to the same conclusion
19 that the Mayor did, that we need to have filtration as
20 part of that default package.

21 And one of the things we are trying to do to
22 make sure we get effective B.M.P.s is we're designing an
23 L.I.D. B.M.P. testing and demonstration facility. And
24 really the whole purpose of that facility is to figure
25 out how to maximize the infiltration and

1 ~~evapotransporation benefits of filtration-based B.M.P.s.~~

2 And so with that expertise, I ask that you
3 consider a change to footnote 57 (sic) to simply state,
4 instead of being negative in terms of -- prove the
5 negative with the feasibility analysis, just state that
6 your filtration B.M.P.s have to maximize infiltration
7 and evapotransporation.

8 Come at it from a more positive approach. The
9 permittees can develop B.M.P. design guidance that they
10 can give to you to demonstrate that they've done that.
11 And it makes it easier for us to implement these L.I.D.
12 requirements.

13 I'm also a bit concerned with the feasibility
14 criteria in that the way I read it, it would only allow
15 for consideration of on-site issues, such as soil
16 conditions and high groundwater. But there's also an
17 issue because you'll be eliminating small storm
18 discharges with an on-site retention policy that you may
19 need to consider impacts to things like vernal pools.

20 Another example would be Lake Elsinore where
21 we're trying to maximize the amount of water that's
22 coming into the lake. And I'm not sure that that policy
23 right now is addressed. I think a simple solution to
24 that is to simply change Footnote 56 to be proactive and
25 require filtration B.M.P.s to maximize infiltration and

1 evapotranspiration.

2 Thank you.

3 MS. BESWICK: Question.

4 MR. THIBEAULT: Jason, so are you thinking that in
5 the submittal of a feasibility study that your
6 suggestions wouldn't be part of what you had proposed to
7 us -- when it comes to Riverside County, I would expect
8 the same sort of feasibility study to be designed.

9 Where you would propose to us things like, hey, we need
10 water in Lake Elsinore. That's really important. And I
11 would expect that given everything that's happened, we
12 would go, yeah, that's a good idea. We need that.

13 MR. UHLEY: That's another question. Is this
14 feasibility study only on a site-by-site analysis, or
15 can it be done -- we can draw a conclusion that says to
16 the Santa Jacinto Watershed, we need water to Lake
17 Elsinore. That's a factor.

18 MR. THIBEAULT: I would expect for any of the
19 counties to make it a county-wide feasibility study
20 where you look at all of the issues that affect
21 feasibility for all development in field, brownfields,
22 V.O.C. plumes. Anything like that should be included as
23 part of the feasibility analysis.

24 I would expect yours to be different, but
25 along the same lines as what we would look for from

1 Orange County.

2 MR. UHLEY: And that's clarifying. I was
3 envisioning that this was a project-by-project type of
4 evaluation that was being set up.

5 MS. BESWICK: I think that's a lot of people's
6 perception.

7 MR. THIBEAULT: I think feasibility is important
8 because there are some things that are more important
9 than perhaps infiltrating runoff in a certain spot.
10 Jason brings up a great point about Lake Elsinore. I
11 agree, and I would be very receptive to that if that was
12 brought to us and asked for the Board's support in that.
13 Because having some on-site reinvention in a very small
14 groundwater basin that is not very efficient for water
15 supply is less important than maintaining other
16 important beneficial uses.

17 MR. PONTELL: Not to speak in complete
18 self-interest, but I would be very disappointed since
19 the groundwater and the lake water in Big Bear are two
20 completely separate systems. If all the water was
21 diverted and the groundwater -- and we ended up with
22 a dry lake, probably not very good.

23 Thank you.

24 MR. SMYTHE: I think the thing here is that the
25 criteria itself will be region-wide, county-wide. The

1 application of that criteria, the analysis of that
2 criteria will then be applied on a site -- or
3 project-by-project basis.

4 MR. UHLEY: Thank you. But I would also still like
5 you guys to consider the proactive rewrite of footnote
6 56 with regard to application of filtration based
7 B.M.P.s, but thank you for the clarification. That is
8 helpful.

9 MS. BESWICK: Matt Yeager, followed by
10 Andrew Henderson.

11 MR. YEAGER: Good morning. This is
12 Dr. Matt Yeager. I'm saying that for maximum impact.
13 I'm representing the San Bernardino County Storm Water
14 Program today and the 16 cities and the County in the
15 flood control district.

16 And again, we are commenting. This is not our
17 permit, and we're not attempting to negotiate on behalf
18 of anyone. We have some ideas about what our permit may
19 look like based on this discussion. I don't think this
20 whole feasibility L.I.D. discussion is probably going to
21 be fully heard again.

22 So I think -- the first thing I'd like to say
23 is that although we may not agree with everything that's
24 been said today by Orange County and by everybody else,
25 we haven't had a chance to analyze that. It's been a

1 very compressed time frame.

2 We do support Orange County's analysis and
3 assessment of their own situation, and generally, would
4 tend to support their suggestions for modifying the
5 permit. And I also would like to say after having heard
6 Jason's comment that we definitely would support any
7 kind of modification to Footnote 56, which makes it
8 more -- what I would say implementable.

9 And also, we had talked previously about a
10 more regional approach to feasibility, and I think that
11 makes a lot of sense. And also, I would like to say we
12 do not, as a program, we do not support the need for
13 feasibility analysis for applying the L.I.D. process as
14 a whole.

15 And what I mean by the L.I.D. process is the
16 process which has been developed by the L.I.D. center in
17 Maryland over a 10-year period. It's a process applied
18 to sites, and it does a constraints and opportunities
19 analysis, and it has feasibility built into it.

20 So the other question about the feasibility
21 analysis is in the interim before we have it approved
22 region wide, this will be applied on a site-by-site.

23 So I would suggest if there's a fair amount of
24 potential administrative burden on cities and government
25 staff -- other state staff in dealing with these

1 feasibility analysis. And I don't know what the benefit
2 is really going to be there in terms of water quality.

3 So I think -- finally, I would just like to
4 say that I'm concerned about the overall processes some
5 others have mentioned. I would be curious -- I don't
6 know what my rights are, but I'd be really curious to
7 understand what comments were made after May 8th because
8 right now, I don't know what they are, and I don't know
9 what you guys have been asked to disregard.

10 Finally, on the flow chart, I really appreciate
11 the fact that the flow chart was prepared. I think it
12 does help us to try and understand, but it's still a
13 very complicated program -- just this development
14 program. I don't think it's clear. I'm not
15 understanding it fully either, even though the flowchart
16 is here.

17 A specific question is: You have a box on the
18 flow chart that says, "conduct feasibility criteria
19 analysis E, point 1." You've also got up in the top box,
20 which is where the initial L.I.D. application comes in.
21 You've got a box called bio-treatment, and then I
22 believe in the revised, which I just saw today, which
23 wasn't here before, but it was sent to me by e-mail, was
24 different. It now references Footnote 56.

25 My question is: Is the feasibility analysis E,

1 point 1 the same as we're talking about this
2 bio-treatment, which refers to 56 -- Footnote 56? If
3 it's the same -- that's what I interpret, but that's not
4 what the flowchart sent out really says. Again, clarity
5 would be really nice.

6 Thank you.

7 MS. BESWICK: Thanks.

8 All right. Andrew Henderson. Andrew, we're
9 not going to have time for more than three minutes. So
10 if you're going to do a powerpoint --

11 MR. HENDERSON: Well, I thought I had one, but I
12 don't. I apologize to the court reporter --

13 MS. BESWICK: But it's amazing how much you can
14 convey verbally without having to show us something.
15 You'll be good.

16 MR. HENDERSON: Well, I do want to apologize to the
17 court reporter because I know as a former litigator I
18 used to make them cry.

19 I'm Andy Henderson. I'm here representing the
20 Construction Industry Coalition on Quality. You're
21 probably used to seeing Mark Gray, who is on vacation,
22 and he asked me to step in instead of him to make a
23 number of points.

24 And first he would want me to certainly thank
25 you and the staff for all your hard work on these issues

1 and all the state workers who have really worked, I
2 think, heroically on trying to reach agreement and by
3 and large with one exception that is now reflected in
4 the first sentence of Footnote 56.

5 Let me start by saying that the building
6 industry -- and I'm also the Vice President General
7 Counsel of the Building Association of Southern
8 California, and we're very much in favor of the impetus
9 to move towards low impact development.

10 We're used to the California Environmental
11 Quality Act, C.E.Q.A., trying to lower impacts of
12 development all the time. We welcome the addressing
13 that low impact development through this body, and, in
14 fact, we have recommended that this body should
15 promulgate or recommend to the local governments a
16 threshold of significance for hydro-modification and
17 these other things that are currently being addressed
18 now through what is more a command and control means.

19 And as champions for low impact development,
20 we feel that it's extremely important that we keep on
21 the table and keep -- it's probably the best tool
22 available, bio-treatment, because it is in many
23 circumstances far preferable to an uncritical
24 application of retention and for evapotranspiration,
25 re-use, and infiltration.

1 One example would be Rancho Mission Viejo,
2 which recently went through a major revision with the
3 blessing of endangered habitats league. And the
4 conclusion there was that they were going to try to
5 build on the land that is least pervious, and they did
6 that because that's the way to best maintain the water
7 cycle and the natural flows of water.

8 If you now were to layer on top of that the
9 requirements that are reflected in footnote A, in
10 particular the first sentence of footnote A, you'd have
11 a wrong headed mandate, which is to the extent feasible,
12 you've got to retain water on-site when the whole plan
13 was designed to build on the sites that were naturally
14 impervious so that you could maintain and mimic the
15 natural hydrology.

16 So we very much believe bio-treatment needs to
17 be on the table. I heard Madam Chair say that
18 bio-treatment is throughout the permit, but the first
19 sentence of Footnote 56 relegates it to a poor
20 step-child in relation to the other, which must be done
21 wherever it's feasible.

22 And it's that question of feasibility that is
23 so problematic because it would be feasible for me to
24 rent a Hummer and drive here today, but I drove my Prius
25 instead. It would be economically, technically, and

1 legally feasible for me to drive a Hummer here, but it's
2 environmentally far more preferable for me to drive my
3 Prius, which I did. And it's that problematic word of
4 infeasibility -- or feasibility.

5 So we have asked for, in various ways, that
6 that question of feasibility be addressed. First, we
7 think you could do without Footnote 56. The first
8 sentence of it, in particular, by saying you have to do
9 X, Y, and Z if it's feasible, and then if you can't do
10 it, you have to move on to the more preferable tool is
11 problematic.

12 So if there's a way to just remove it -- or
13 otherwise to change Footnote 56 to say that -- something
14 to the effect that a properly engineered and maintained
15 bio-treatment system may be considered only in
16 accordance with the priorities specified in Section
17 12.C.4. Something like that would do it.

18 Another thing you could do is say that you
19 would use bio-treatment where the on-site retention is
20 infeasible or where the bio-treatment is an
21 environmentally preferred alternative at the site.

22 So there are ways that you can address this
23 and elevate bio-treatment to the level where it belongs,
24 which is in many circumstances the best tool available.

25 I want to finally point out that our stance on

1 this is completely consistent with both the E.P.A.
2 definition of L.I.D. and the State's definition of
3 L.I.D., both of which say that the aim of L.I.D. is to
4 mimic the predevelopment hydrology -- well, you're not
5 going to do that. If you say anywhere you can, you
6 change the hydrology if it's feasible to do so, you're
7 not going to be trying to mimic the predevelopment
8 hydrology. So you're stepping away from both the U.S.
9 definition and state definition of L.I.D.

10 You're also stepping away from a 2000 year
11 doctrine called the National Flow Doctrine at Law, which
12 since Ancient Rome has said that you should try to --
13 when you develop property, you should try to maintain
14 the natural flow as much as possible. In fact, you have
15 an obligation to do so.

16 MS. BESWICK: I'm going to ask you to stop there.
17 Again, we heard a good discussion about that at our last
18 meeting. We understand it clearly.

19 MR. HENDERSON: Okay. Thank you.

20 MS. BESWICK: Eric Strecker, followed by
21 Paul Singarella.

22 MR. STRECKER: Obviously, I'm not going to go
23 through the whole presentation. I would have liked to
24 today. My name is Eric Strecker with Geosyntec
25 Consultants, and I'm here from Portland, Oregon today.

1 I'm going to skip through the highlights from
2 my last presentation to the Board that I gave you and
3 focus on just a couple of things. I think if we look at
4 a more sustainable strategy, it's really all of these
5 things that we want to be looking at in terms of what is
6 the most desirable combination, not simply looking at
7 what is feasible, which has been highlighted here.

8 I think Board Member PonTell highlighted
9 there's lots of benefits to some of the
10 bio-treatment-type systems. I thought some pictures
11 would be good to look at. This a bio-retention system
12 in Sacramento County.

13 MS. BESWICK: We're really -- we've had this. I'm
14 just saying, spend your time on things we haven't
15 already been over.

16 MR. STRECKER: I'll just show a few pictures here
17 of different systems out there that I think provides
18 some aesthetics and habitat benefits, fresh water
19 marshes included.

20 The other thing I wanted to draw your
21 attention to is just -- I'll go right to the last map
22 here. We did some analysis of feasibility of
23 infiltration, and this is showing an overlay of where we
24 have the soils to do it, where we have industrial areas,
25 where we have contamination considerations, steep

1 slopes, and depths to groundwater of less than 10 feet.

2 Bottom line is, about 23 percent of the County
3 is probably available for infiltration, which is a
4 significant component. But you're going to have another
5 almost 80 percent, but that's not a viable technology.
6 Then you're into capture and use, because
7 evapotranspiration is going to be fairly limited as a
8 loss mechanism, and then we're into building tanks and
9 things like this.

10 After your hearing, I visited E.P.A. They have
11 cisterns that capture an inch of runoff from their roof.
12 They were dry because -- they weren't even diverting
13 water into those because they can't use it now for
14 irrigation. Their own sign said it takes about 10 days
15 to drain those things. My bet is those are bypassing
16 off it.

17 So again, I think the key issue here is in
18 thinking about Footnote 56, what I'd like to see is what
19 is the most desirable combination of those things that
20 we can do that gives us the best outcome verses
21 prioritizing one over another. So maybe this hits on
22 what Mac was trying to say, too.

23 We did an example 100 acre catchment where I
24 showed the T.S.S. loadings to receiving waters would be
25 less under bio-retention scenario with toilet flushing

1 and irrigation verses cistern and re-use, and I'd
2 actually have lower concentrations in this particular
3 case.

4 So -- and then I also think we just have to
5 think about the sustainability and the carbon footprint
6 if we get into putting tanks and treatment pumps and
7 treatment systems and the rest of that on a micro-scale.

8 So bottom line is that I think we need to
9 think about keeping the appropriate mix of tools in the
10 toolbox and really taking -- so this word feasibility, I
11 think you're hearing that it gives a lot of people
12 heartburn here. And let's get that down to what are the
13 most desirable combinations of things that we should do.

14 Thank you.

15 MS. BESWICK: Thank you. Those are good points.

16 Paul Singarella.

17 MR. SINGARELLA: Thank you, Madam Chair and other
18 members of the Board. Paul Singarella, and I'm here
19 today on behalf of the Orange County Business Council.

20 I have two points: One procedural and one
21 substantive. On the procedural side, we were actually
22 quite surprised on May 11 because the prior comment
23 period had closed on May 8, and on May 11 we saw for the
24 first time -- because it was first introduced on
25 May 11 -- this Footnote 56, which we thought was

1 actually a 180 degree turn from the permit and the
2 proceeding that we had in front of you on April 24.

3 The reason that we thought it was a 180 degree
4 turn is that it introduced for the first time this
5 feasibility demonstration in the way of using the kinds
6 of B.M.P.s that Eric Strecker just showed you up on the
7 screen. Those are really great B.M.P.s, natural
8 treatment system B.M.P.s, bio-treatment B.M.P.s. There
9 was no gate to get to those types of B.M.P.s, and
10 actually have runoff from the site during the design
11 storm prior to May 11.

12 That gate was introduced on May 11 after the
13 prior public comment period was closed. We looked at
14 that introduction of that footnote -- it's only a
15 footnote, but it's a big footnote -- and it really
16 turned things around. And our estimation what you've
17 got -- and I hate to say this, but I think you have a
18 major permit amendment here as defined under the Federal
19 Clean Water Act.

20 It's that substantial, and I think, Madam
21 Chair, that's what you're seeing. That's what you saw
22 this week. That's why you saw people trying to
23 communicate with you to say, oh, my gosh. Why are we
24 spending so much time here trying to save the good,
25 trying to save these good B.M.P.s? Why is such an

1 obstacle to using bio-treatment B.M.P.s being introduced
2 at the 11th hour? That's how we see it.

3 So I want to make that procedural point for
4 the record. It's a formal objection to the process,
5 Madam Chair.

6 On substance, the issue is bio-treatment.
7 Again, the issue is, is it going to be part of
8 compliance, or are you going to have to earn your way to
9 it through some kind of a process, whether it's just a
10 feasibility analysis or it's a feasibility analysis plus
11 a waiver or a feasibility analysis plus a waiver plus a
12 fee. We don't know. Leaving here today, we don't know.

13 What we will know is, if you approve this
14 permit as proposed, is that access to the public storm
15 drain for new development, for new streets and highways,
16 for new infrastructure is fundamentally changed. And
17 the way it's fundamentally changed is that you can no
18 longer avail yourself of the public storm drain for the
19 design storm volume without getting something else --
20 something in addition to what you've needed before
21 today.

22 At a minimum it's feasibility, and it may be
23 more, and we don't understand it. We don't know why, as
24 a matter of policy, you would create that roadblock. We
25 don't think it's a smart way to go here. I'd be glad to

1 ~~make an offer of proof to you as to why we think~~
2 feasibility is such an important issue here and why it's
3 the wrong term, but I'd have to ask for Madam Chair's --
4 for an extra minute to do so.

5 MS. BESWICK: Take the extra minute.

6 MR. SINGARELLA: Thank you.

7 First of all, the term feasibility is -- it's
8 just -- it's the wrong term. It's too limited. We have
9 to look at water quality performance. We have to look
10 at desirability. It may simply not be desirable to go
11 with on-site retention in all instances. It may be
12 feasible to do so, but it may not be desirable.

13 Number two, why set such a bar to
14 bio-treatment? Why are you relegating these fantastic
15 B.M.P.s that should be promoted? Why are you relegating
16 them to an inferior status to on-site retention B.M.P.s?
17 It makes no sense to us.

18 Number three, feasibility is not defined. I
19 was very heartened to hear the Executive Officer talk
20 about his concept of feasibility. But the reality is,
21 it's not defined. There's no place where we can find it
22 in the permit. That's one of the reasons that
23 C.I.C.W.K. offered a finding to the Board and at the
24 same time to the public earlier this week is to allow
25 some definition of that very important term, if you can

1 retain it.

2 And finally, number four, we're very concerned
3 because we see it in defensive projects when we're doing
4 E.I.R. work under C.E.Q.A. We're very concerned that
5 this is going to slide and that feasibility today is
6 going to turn into something totally unintended
7 tomorrow. We're going to be living with this permit for
8 seven years.

9 MS. BESWICK: Okay. I think the feasibility issue
10 has been addressed, and I thank you for that.

11 MR. SINGARELLA: Thank you, Madam Chair.

12 MS. BESWICK: Kristine Murray.

13 MS. MURRAY: Madam Chair, members of the Board,
14 thank you for your time. I represent the Orange County
15 Business Council today, and we're also represented by
16 Latham Watkins. So I do concur with all of Paul's
17 comments.

18 My comments are also process and substance as
19 well. With regard to process, we did submit a letter
20 yesterday to your Chief Counsel, Mr. Rice,
21 electronically asking that it be considered because it
22 was based on changes post the May 8th public comment
23 period. And we felt due process was that our comments
24 should be considered, which I respectfully request, and
25 I have an original copy of our letter signed by our

1. president and C.E.O., and I would respectfully request
2 it be submitted into the record with your consideration.

3 MS. BESWICK: What's the date on your letter?

4 MS. MURRAY: It's May 21st, but it's based on
5 comments since the May 8th --

6 MS. BESWICK: I understand that, but one of the
7 reasons is that -- were you at our last hearing?

8 MS. MURRAY: I was. And on April 24th we did
9 submit a hearing -- a letter to you as well, and we were
10 also represented by Latham Watkins and their submission
11 by May 8th. So that qualifies our involvement.

12 MS. BESWICK: I understand that. It's just that it
13 is frustrating to get things the day before a meeting
14 always. You can understand that, I'm sure. And so
15 that's what we were trying to avoid. And it's not like
16 you just got the document. That's, as much as anything,
17 it's just kind of respect for the process.

18 MS. MURRAY: And Madam Chair, I do have --

19 MR. PONTELL: May I just ask a question?

20 All of the testimony we're receiving today is
21 going into the record; correct?

22 MS. BESWICK: Of course.

23 MR. PONTELL: So can she read the letter, and then
24 it would be on the record by definition.

25 MS. BESWICK: She can submit it to us.

1 MS. MURRAY: Thank you very much.

2 MS. BESWICK: Or no, I can't. If I do that --
3 yeah, you're right. I can't do it.

4 MR. PONTELL: But if it's not a long letter, just
5 read it.

6 MS. BESWICK: Well, the same problem applies, I
7 think.

8 MR. RICE: Well, you certainly have the ability to
9 accept --

10 MS. BESWICK: True.

11 MR. PONTELL: All this is testimony.

12 MS. BESWICK: If you'd like to read your letter,
13 read your letter.

14 MS. MURRAY: I'm happy to read my letter. Thank
15 you.

16 Honorable members, the Orange County Business
17 Council, representing the largest employers in Orange
18 County and the public agencies, cities, and counties
19 major stake holder community impacted by this permit
20 respectfully requests some small, but what we consider
21 very important changes to the draft permit to delete
22 newly introduced Footnotes 56 and 57, which would
23 reintroduce your direction -- reinforce your direction
24 from the April 24th hearing that bio-treatment with
25 off-site runoff is part of the L.I.D. standard.

1 We would also request -- and this paragraph
2 does speak to something that you said you will not be
3 consider today, but it's part of our letter --
4 substitute the words "should consider" for the words
5 "shall incorporate" in sections 12.B. to .H so that the
6 federal green streets guidance is not improperly
7 transformed into new unbedded enforceable standards for
8 street and highway projects in Orange County.

9 These critical changes would enable the City
10 to support the permit unequivocally and are described
11 below.

12 One, to make bio-treatment and off-site runoff
13 part of the L.I.D. standard rather than an exception
14 available only after proving infeasibility of off -- I'm
15 sorry -- infeasibility of on-site retention.

16 At the April 24th hearing you provided staff
17 with direction to add bio-treatment and off-site runoff
18 to the L.I.D. standard rather than making it available
19 only after proving infeasibility of on-site retention.
20 The revisions to the proposed permit do not accomplish
21 this objective and add qualifications and obstacles to
22 the use of bio-treatment.

23 As the cities have discussed with staff for
24 the last several months, bio-treatment B.M.P.s are the
25 best -- are some of the best available B.M.P.s to

1 improve urban runoff. We ask you to revise the proposed
2 permit so that the runoff from these public works
3 projects can occur without a demonstration that on-site
4 retention of the design capture volume is infeasible.

5 This could be accomplished by deleting
6 Footnotes 56 and 57 and reinforce your direction from
7 the April 24th hearing that bio-treatment with off-site
8 runoff is part of the L.I.D. standard, not something
9 that can occur only after infeasibility is proven, a
10 waiver is granted, or a fee is paid.

11 The permit is proposed -- will propose a great
12 and unnecessary burden on public works projects and
13 creates impediments for projects as small as 5,000
14 square feet to drain to the public storm drain where the
15 runoff is intended to go.

16 It is infeasible to retain 100 percent of the
17 design capture volume on-site for most projects. At a
18 time when budgets have been slashed and infrastructure
19 funding is scarce, we strongly urge you to revise the
20 proposed permit as described above.

21 Our second point speaks to the do not make
22 federal -- we request that you not make federal --

23 MS. BESWICK: Can you summarize? We're running
24 past the three minutes.

25 MS. MURRAY: Absolutely, Madam Chair, thank you.

1 Our second point is to the green street
2 gardens, and I understand you're not accepting that
3 today. So I'll move on. We remain -- I would just like
4 to say that the Orange County Business Council remains
5 committed to the protection of water quality and
6 appreciate in advance your attention to these vitally
7 important issues. We look forward to responding to any
8 comments or questions today at this hearing, but we do
9 respectfully request that you make these considerations,
10 and we would urge that you remove item -- Footnotes 56
11 and 57.

12 We do think they're substantial, and they were
13 made post the May 8th comment period. We ask for your
14 consideration of that with due respect from the
15 Lucy Dunn, our President and C.E.O.

16 Thank you.

17 MS. BESWICK: Thank you.

18 Mike -- I'm not sure. Is it Recuperero?

19 MR. RECUPERO: Thank you, Madam Chair.

20 Mike Recuperero on behalf of the City of Anaheim, Santa
21 Ana, and Newport Beach.

22 Just for clarification purposes, I have three
23 letters here that were e-mailed, and I understand those
24 are not being accepted. Is the Board now saying that it
25 is not accepting evidence to be -- letters to be lodged

1 ~~in during this hearing?~~

2 MS. BESWICK: That's right. If you'd like to tell
3 us the content of the letter, feel free.

4 MR. RECUPERO: Okay. I would.

5 MS. BESWICK: Can you summarize for us, though?

6 MR. RECUPERO: I can.

7 All three cities are consistent with what the
8 comments have been today, believing that Footnote 56 and
9 the use of the term feasibility is a substantial change
10 to the permit. I think it's regrettable that they're
11 not given the opportunity to explain why in writing.

12 I think it would be very helpful -- I don't
13 know if it's possible -- to look at the flowchart very
14 quickly because I think there might be a fix that I
15 could share with you that I think the Board would be
16 very interested in.

17 MS. BESWICK: We've got it in front of us. You
18 want to just go ahead and describe it? We all have it
19 in front of us.

20 MR. RECUPERO: Please.

21 If you look at the top, there are four
22 B.M.P.s. There's three on the left, and then there's
23 bio-filtration over on the right. When everybody saw
24 that flowchart, they understood exactly what you said at
25 the April 24th hearing, that bio-treatment was an

1 acceptable L.I.D. component.

2 The problem is Footnote 56 used the term
3 feasibility, and the feasibility analysis is a term of
4 art in your permit because there's a different
5 feasibility analysis that has to happen.

6 And that is, when a city can't do L.I.D.,
7 they're saying we need your okay to use non-L.I.D. This
8 is a feasibility that says, "Can you or can you not use
9 L.I.D., generally?" There's a different and smaller
10 prioritization process that is supposed to take place at
11 the top of the box, and that is to go from the three
12 B.M.P.s on the left to bio-treatment on the right.

13 And the concern is, now, just to get to
14 bio-treatment, the cities are going to have to go
15 through a separate feasibility analysis that is
16 referenced down below in analysis E.1.

17 It is a substantial difference, and I think if
18 the Board would address that -- frankly, I don't think
19 it was Staff's intent to use the term feasibility in
20 Footnote 56 and trigger E.1. I think those are two
21 different analysis.

22 From the City's perspective, they should have
23 the authority to prioritize those best management
24 practices. We get the fact that you don't want everyone
25 to default to all bio-treatment. We've heard it 20

1 times. I don't think that's the intent, but it's also
2 not the intent to require cities when they have a road
3 project, a library, or something else to have to come
4 and do a full on feasibility analysis to this Board.

5 And it should be done -- it should be done
6 in-house with regard to the best management practices.
7 The use of L.I.D. generally, is it a different analysis?
8 We understand that, but I think it would be helpful if
9 you would clarify those two things.

10 Thank you.

11 MS. BESWICK: Thank you. Well, that's the extent
12 of the comment cards that I have. I'm just going to do
13 one thing.

14 I want to get back to the point about the
15 request for the contemplation of adding back in some
16 language. I've asked Jerry about that. Would it be
17 okay if I had Jerry make some comments, and then see if
18 that clarifies?

19 So I'm actually closing the public hearing,
20 and we'll move onto -- if you'd like to make comments or
21 Mark would like to make comments on some of things we've
22 heard -- I think that -- well, go ahead. I think
23 there's some real confusion here that needs to be
24 addressed.

25 MR. THIBEAULT: Right. I think there's some real

1 confusion, too, and this is just a response to comments,
2 Madam Chair. I just want to make that clear.

3 People have said repeatedly that this is --
4 that Footnote 56 is something new that was added to the
5 permit, and we all know that that's not true. Footnote
6 56 has been there --

7 MS. BESWICK: Been there since the beginning.

8 MR. THIBEAULT: Well, it's at least been there
9 since the May 1st draft, and I'm not so sure we'd object
10 to going back to the May 1st draft if people don't like
11 the clarifying language in the subsequent drafts, Mark,
12 but I will read the earlier draft just to make sure you
13 all know what it says.

14 "A properly engineered and maintained
15 bio-filtration, bio-retention, or other bio-treatment
16 system maybe considered only if infiltration, harvesting
17 and re-use and evapotranspiration are not feasible."
18 That's the end.

19 So what we've done -- attempted to do, is to
20 make it more clear -- more easy for everyone to comply
21 by identifying that we assume that this process of
22 identifying the treatment options or the retention
23 options, the L.I.D. options, will be part of the
24 feasibility study that we expect to have submitted by
25 the permittees, by the principal permittee and all the

1 co-permittees.

2 MR. SMYTHE: And as well as being part of the model
3 W.Q.M.P. process.

4 MR. THIBEAULT: And as part of the model W.Q.M.P.,
5 exactly. And so I guess I just have a hard time
6 understanding the testimony today indicating that
7 Footnote 56 is somehow, you know, changed and is being
8 imposed on, on the co-permittees because it's always
9 been there. But it's been in a more restrictive,
10 harder-to-comply-with structure. And so if --

11 MS. BESWICK: Maybe you need to speak to why it's
12 easier to comply with.

13 MR. THIBEAULT: Well, what we are suggesting in the
14 latest draft is that it's a process that's part of the
15 model W.Q.M.P., as Mark just said, Section 12.C.1 and
16 the feasibility criteria in Section 12.E.2 are also part
17 of the process. And then specific design, operation,
18 and maintenance criteria for bio-treatment systems shall
19 be part of the model W.Q.M.P. We expect them to submit
20 it to us.

21 MR. PONTELL: Jerry, I think that's probably one
22 of the things that gives me the most comfort. And I
23 guess it's -- within 12 months of adoption of this
24 order, the permittee shall update the W.Q.M.P. to
25 incorporate L.I.D. principles.

1 Well, L.I.D. principles are an evolving
2 science. And so to the extent the permittee and the
3 permittee's associates are able to identify the best
4 practices for low impact development that maximize
5 accomplishing all the goals as laid out in the permit,
6 and that's something that they are going to be designing
7 and developing, what those principles are.

8 But I do have two questions associated with
9 that. It says that it will be submitted to the
10 Executive Officer. So we did have some conversation
11 about if the Executive Officer does not accept what is
12 submitted, what is that appeal process?

13 MR. THIBEAULT: The appeal process is currently
14 in -- proposed in the permit would be to the State
15 Board. If you want it to be appealed back to you, we
16 can certainly do that.

17 MR. PONTELL: I would want to entertain that. So
18 just put that on the table for discussion because -- and
19 I do think especially with regard to the fact that
20 Orange County gets to be the guinea pig, but
21 San Bernardino and Riverside are right behind.

22 So I would think that if over the next 12
23 months, the permittee is coming up with the L.I.D.
24 principles that can best accomplish the overall goals --
25 and I think everybody understands what the overall goals

1 are, and to the extent the Executive Officer, the
2 permittee, and staff are able to work those out, great.

3 And I think that will then create a lot of
4 information for subsequent permits. To the extent
5 they're not, I would think a discussion with the Board
6 would be mutually beneficial for all of the future
7 permittees.

8 So essentially it seems to me that there is
9 some direction. There is some indication of
10 prioritization, but there is nothing cast in stone with
11 regard to what the solutions are to the extent the
12 permittee is coming back with their determination of the
13 application of L.I.D. and whatever other solutions may
14 be able to be incorporated into that permit.

15 I did have a second question, though, with
16 regard to -- maybe explain the waiver process. So if
17 somebody needs a waiver, is that an onerous obstacle
18 over which to -- is it an expensive process? Is it a
19 timely -- now, I'm talking about when it talks about a
20 waiver of a specific application -- of a specific
21 project where a waiver is required.

22 MR. THIBEAULT: Michael.

23 MR. ADACKAPARA: In answer to your first question,
24 actually, when the principle criteria is developed and
25 the water quality management plan is submitted to us, we

1 are going to publicly notice that. And if there are any
2 significant issues based on the comments we receive, I
3 think the intent -- Staff's intent is to bring that to
4 the Board at that point.

5 To answer your second question -- I forgot.
6 What was the question?

7 MR. PONTELL: The waiver.

8 MS. BESWICK: The waiver question.

9 MR. ADACKAPARA: The waiver process will also be
10 established in the feasibility criteria, and it's not
11 going to come back to the Board or it's not going to
12 come back to us. It will be the permittee who are going
13 to actually decide whether they want to grant the waiver
14 or not. And the criteria will be established during the
15 water quality management plan divisions.

16 MR. PONTELL: That's what I thought. Thank you.

17 MS. BESWICK: Now, do you want to get into your --
18 the question that was asked, if you remember, Jerry, by
19 -- who was it that asked the question?

20 MR. FRESCHI: A couple things. Last month we
21 discussed this appeal process, and I was expecting that
22 we would find that in this document today. That's one
23 observation. The other one is, on the one hand it looks
24 like this is being rushed because everyone has to hurry
25 up, but realize that this was suggested, and it was

1 promulgated in November of last year.

2 So there has been a long time for people to
3 make the comments absent item 56 and 57. But I'm
4 uncomfortable approving this today because there's so
5 much misunderstanding.

6 And we think it's clear, staff thinks it's
7 clear, but the people that are affected by it aren't
8 clear. We haven't defined what the waiver process
9 really is. We haven't indicated the review process by
10 staff, and I still need to have Jerry explain to me
11 what's wrong with adding the words that --

12 MR. THIBEAULT: We'll get to that.

13 MS. BESWICK: What I need to tell you is that our
14 court reporter needs a break. I need to give her five
15 minutes. We'll break until noon, and then pick right up
16 on that question.

17 (Recess)

18 MS. BESWICK: We were right in the middle of a
19 question, and I think that Jerry was ready with an
20 answer.

21 MR. THIBEAULT: Yes. Thank you, Madam Chair.

22 We specifically --

23 MS. BESWICK: Oh, Steve's not here. I thought
24 Steve was in the room.

25 MR. THIBEAULT: I thought he was, too.

1 MS. BESWICK: Let's go back -- so we're back to
2 answering the question that Steve -- that was asked
3 earlier about the old language.

4 MR. THIBEAULT: Right. The question Mr. Freschi
5 asked had to do with why the words "similarly effective"
6 were removed from the latest version C.1, C.2, and it's
7 for exactly the same reason that you've heard over and
8 over again this morning. It wasn't very clear. It
9 wasn't well-defined. It means too many things.

10 So this is an attempt to be really clear about
11 what the staff proposal is for M.E.P., maximum extent
12 practicable. See, you haven't been involved in a storm
13 water permit before, and so they operate under a
14 different standard than most other N.P.D.S. permits.
15 Those are typically numerical standards.

16 Storm water permits operate under M.E.P.,
17 maximum extent practicable. M.E.P. is a moving target
18 over the years in an attempt to achieve the highest
19 level of storm water control pollutants -- to control
20 the pollutants from storm water that can be achieved.

21 So what we are suggesting is that M.E.P. in
22 this case is not a similarly effective bar that has to
23 be achieved. It's do these L.I.D. principles first. If
24 that doesn't work, do bio-treatment, which is one of the
25 L.I.D. things, but what we're suggesting is less -- it

1 should be lower on the priority scale.

2 And then if that doesn't work, then you go to
3 the next thing that is going to be part of -- and I will
4 respond to another comment as I continue to answer that
5 question -- and that is feasibility and the feasibility
6 study and the report and everything else that's been
7 brought up over and over again, we expect the
8 co-permittees to propose to us what they would like to
9 do for a waiver program, for feasibility, for their
10 evaluation of L.I.D. principles.

11 Some of the comments I think are confusing
12 because they don't recognize what we've been telling
13 them all along, that we expect them to come to us with a
14 proposal. We're not telling them how to do it. Let
15 them come to us.

16 So this Footnote 56, that is such a center of
17 controversy, I think was set up -- and if we have to
18 argue it in court, we will, but Footnote 56 is clearly
19 making it easier for them to come to us with a proposal
20 for compliance.

21 Now, the earlier version, I think, is hard to
22 comply with. It's not as clear as what Mark and the
23 other staff members have put together. It's been in
24 there all along. This is easier to comply with. This
25 is clearer. We expect them to come to us with what they

1 propose.

2 I don't know if anybody from Lake Forest is
3 still here, but just to clarify what we talked about
4 earlier with respect to the language that is still on
5 the screen, Madam Chair, this language makes it clear
6 that compliance with the permit, with the de minimus
7 permit, R82009 dash 003. remains in effect. Nothing
8 changes for Newport Bay Watershed.

9 That language for the Newport Bay Watershed
10 says, "Proposed waste water de minimus discharges as
11 defined above within the San Diego Creek/Newport Bay
12 Watershed that do not contain nutrients, selenium, or
13 other T.M.D.L. pollutants of concern at levels that pose
14 a threat to water quality or beneficial uses may apply
15 for coverage under this order."

16 This addition that staff has put in here
17 simply means that it's a status quo with respect to
18 those discharges.

19 MR. FRESCHI: Thank you for clearing those issues
20 up. I didn't recognize a difference between the storm
21 water permit, which you were talking about before. And
22 I appreciate your clarification. Perhaps that helped
23 some of you other individuals who aren't as experienced
24 as I am -- who are as inexperienced as I am.

25 Thank you.

1 MS. BESWICK: I'm just wondering how important that
2 language is.

3 MR. THIBEAULT: The importance would be if that
4 language wasn't there -- and, Joanne, help me if I
5 misstate this -- if that language is removed, then the
6 coverage that is allowed under the de minimus permit
7 would be excluded.

8 MS. SCHNEIDER: This language is strictly intended
9 as a clarification to make sure that no de minimus
10 discharger with discharges -- those de minimus
11 discharges into the Newport Bay Watershed would assume
12 pursuant to the earlier language, that they simply
13 needed to comply with the terms and conditions of the
14 general de minimus permit.

15 In fact, the general de minimus permit makes
16 clear that where de minimus discharges within the
17 watershed includes selenium, nutrients, or other
18 pollutants of T.M.D.L. concern, they would not be
19 authorized under the general de minimus permit, and they
20 would have to get separate regulatory coverage.

21 MS. BESWICK: Which should not be a surprise in
22 light of what we've been doing on selenium.

23 MS. SCHNEIDER: This should not be a surprise
24 whatsoever. We simply wanted to make that
25 differentiation more explicit, lest there be any doubt.

1 MS. BESWICK: I guess it stunned me to learn that
2 the public works department in that region was surprised
3 by this. To me it was -- but that's why I asked the
4 question about does it need to be there. Your point is
5 to try and make it clearer, to help people comply, to
6 refer, I guess, to other work that's being done in this
7 area.

8 MR. THIBEAULT: Is it fair to say that this is
9 non-regulatory? This is just clarifying? Because the
10 regulatory natures are --

11 MS. SCHNEIDER: That is correct. We are merely
12 clarifying the purpose of established orders by this
13 Regional Board.

14 MS. BESWICK: That's what I thought I understood,
15 but I was very surprised by the reaction that we got
16 with a threat of a lawsuit and so on and so on over
17 something that seemed clarifying and not surprising.

18 Thank you for that.

19 That's why I was looking still puzzled.

20 MR. THIBEAULT: Are there any other questions to
21 the Board?

22 MS. BESWICK: I want to make sure -- are we
23 comfortable on the waiver issue? Do you all really feel
24 comfortable now with how the waiver process works?

25 MR. RUH: Yes.

1 MS. BESWICK: If we understand it, then hopefully
2 others do, too. Steve, what else?

3 MR. PONTELL: Just to kind of echo what I was
4 saying earlier, I understand the concern with us
5 presupposing, predetermining what may be a higher and
6 better solution when maybe it's not the best solution
7 for accomplishing our overall goals.

8 So as long as -- and I've read through the
9 permit, and I do believe that there's plenty of language
10 that actually suggests and allows for a variety of
11 alternatives that would meet the overall goal of the
12 permit that are not necessarily site-specific, and it
13 may not even necessarily be infiltration, harvesting,
14 re-used -- and re-used and then evapotransported.

15 I mean, in my reading of the permit, there's
16 an enormous amount of flexibility. I do think -- I
17 actually think that Footnote 56 helps the primary
18 permittee because I do think the word feasibility is --
19 it does open it -- it has -- it could potentially have a
20 variety of meanings.

21 It opens a pretty wide door, but, correct me
22 if I'm wrong, the new language in Footnote 56 says,
23 "Feasibility criteria will be established in the model
24 permit that's going to be coming back from the
25 permittee."

1 So what we're doing is we're asking the
2 permittee to define feasibility and to define the waiver
3 process and to identify what the L.I.D. solutions are.
4 It may very well be that the L.I.D. solutions that are
5 proposed include bio-treating in a variety of different
6 formats.

7 So we're not presupposing what the L.I.D.
8 solutions are. We're not presupposing the definition of
9 feasibility, and we're not presupposing the waiver.
10 We're asking that within the next 12 months, let's
11 create a process that is accomplishing those. Is
12 that -- would you say that's an accurate interpretation
13 of the goal?

14 MR. SMYTHE: Absolutely.

15 MR. THIBEAULT: I agree.

16 MS. BESWICK: That was helpful. I think the more
17 we restate these things, the better. I was stunned to
18 hear it come up today that someone even for a moment
19 thinks we're still talking about full containment
20 on-site. So these things do need clarification.

21 MR. PONTELL: One last comment. The striking of
22 the language in item two where essentially we changed it
23 to L.I.D. B.M.P.s shall be treated and discharged in
24 accordance with the requirements set forth in Section
25 12.C.7 and Section 12.E below --

1 ~~MS. BESWICK: It's actually and/or Section 12.E~~
2 below.

3 MR. PONTELL: -- accomplishes the same thing as
4 what it said previously, which is it shall be treated
5 and discharged using L.I.D. or similarly effective
6 treatment controlled B.M.P.s or mitigated as set forth
7 in Section 12.C.

8 As long as -- and I do understand the concern,
9 but similarly effective treatment control B.M.P.s could
10 be L.I.D. solutions as proposed by the permittee. If
11 essentially they come back and say, here is a L.I.D.
12 solution that is as effective if not more so than X, Y,
13 Z, then that would be something that would be submitted
14 in the Model Water Quality Permit; correct?

15 MR. THIBEAULT: Yes.

16 MR. PONTELL: And then the Executive Officer would
17 review it, and if the Executive Officer liked it or
18 didn't like it, there would be an opportunity for
19 additional conversation.

20 MR. SMYTHE: Or to come back to you.

21 MS. BESWICK: Yes. And I was going to comment that
22 Member Freschi had mentioned at our last meeting that --
23 and I thought we had agreed, he thought we had agreed.
24 I think he remembers correctly that things on appeal
25 would come back to this Board, and that would be our

1 first way of dealing with an appeal.

2 If we find that it's technically beyond this
3 Board's willingness to be addressing it, we could move
4 it on -- could we move it on? I shouldn't assume that.
5 Could we move it on? We'd have to deal with it.

6 MR. THIBEAULT: Yes, you would have to deal with
7 it. The next step in the petition process would be to
8 the State Board.

9 MS. BESWICK: So we would have to deal with it and
10 either deny it or approve it. I just want to be really
11 clear on what the process is going to be as these things
12 come. And who knows exactly even what would be appealed
13 at this point.

14 MR. FRESCHI: Or we could table it and pass it on
15 to the state; right?

16 MS. BESWICK: No. We have to deny it to get it to
17 go to the state. So I guess my concern last time was,
18 does that create -- and we won't know until it happens,
19 actually. I was trying to be, I guess, more efficient
20 for the Applicant rather than coming here and just
21 moving right up there, but I'm not sure that that's the
22 best solution, and we may have to find out as we go
23 along.

24 MR. PONTELL: I would prefer within our region, to
25 the extent possible, that we keep an opportunity to have

1 a say. It's theoretically possible to disagree with our
2 Executive Officer.

3 MS. BESWICK: Imagine. Whoever that person might
4 be. So that is what we're contemplating now is that the
5 appeal would come back to the Board.

6 MR. THIBEAULT: So what we'll do if that's part of
7 your motion to consider the order is to make the changes
8 necessary and they're editorial changes to accomplish
9 what you've directed.

10 MS. BESWICK: Are there other comments or questions
11 that anybody has?

12 I'm just going through my notes real quick.

13 Would someone like to attempt a motion?

14 MR. RUH: I'm going to say one thing. We have a
15 stake holder process that has served us well for many
16 years with this Board. It is a model for other boards.
17 Other boards wish they had the collaboration from their
18 stake holders that we have.

19 I hope that in the future, as we move forward
20 with other permits, be either these permits or others,
21 that the stake holder process will continue as it has
22 done, other than this one, to continue to work well,
23 where these agreements and disagreements are ironed out
24 before they come to the Board, and we don't have the
25 Board and Board members trying to rewrite the permits.

1 I think that -- personally, I think it's a
2 waste of every public agency here to sit through and
3 keep rewriting something that could have been done at
4 the stake holder process, and I hope that in the future
5 everybody will be able to come together and reason and
6 respect that process, and that what we see before us is
7 something that can be worked out that everybody's pretty
8 much agreed on, as we've done in the past.

9 Thank you.

10 MS. BESWICK: When you think about it -- when you
11 look at what we -- out of all this huge permit, that
12 it's pretty amazing that we are dealing just with these
13 limited -- these limited issues, and it has been an
14 amazing process.

15 MR. SMYTHE: It's actually 37,000 words.

16 MS. BESWICK: I'm sorry?

17 MR. SMYTHE: It's 37,000 words, the permit is.

18 MS. BESWICK: Right. So we're doing pretty well in
19 terms of what we are up against. It can't be expected
20 that we are going to get complete consensus on
21 something. That would be great if we could, but it's
22 not possible.

23 MR. PONTELL: I would attempt a motion.

24 MS. BESWICK: Okay. Give it a shot.

25 MR. PONTELL: Looking forward to the permittee's

1 ~~input over the next 12 months on the creation of the~~
2 specific L.I.D. standards that would be incorporated
3 into the future approval process, looking forward to the
4 permittee's definition of the term feasibility, and
5 looking forward to the permittee's definition of the
6 waiver process, I would move approval of order number
7 R82009 dash 0030.

8 MS. BESWICK: With the errata sheet.

9 MR. PONTELL: With the most recent errata sheet.

10 MS. BESWICK: And the change of and/or, and we
11 added -- remember we added or in number two --

12 MR. PONTELL: And with the changes as indicated on
13 the errata sheets --

14 MS. BESWICK: Perfect.

15 MR. PONTELL: -- and with the appeal being changed
16 to come to the Board of Directors.

17 MS. BESWICK: And that piece as well.

18 MR. THIBEAULT: On your motion, Mr. PonTell, with
19 the errata sheets before you, number two, Mark points
20 out that we have the and/or that we need to put in
21 Section 12.C.2.

22 MS. BESWICK: He just did that.

23 MR. THIBEAULT: And then adding the water districts
24 and the sanitation districts.

25 MS. BESWICK: On the appendix.

1 ~~MR. RICE: I think that you should hand the sheet~~
2 to Steve, and he can make his motion again, just for
3 clarification.

4 MR. PONTELL: Further clarification of my motion
5 will include and/or in 12 dot C dot 2 adding water
6 district, sanitation districts --

7 MR. RICE: I hate to bother you again.

8 Would you mind just starting from the very top
9 because there was a lot of interim discussion between
10 the start of the motion --

11 MR. PONTELL: Do I have to go through looking
12 forward to?

13 MR. RICE: That would be up to you.

14 MR. PONTELL: I would move approval order number
15 R8 dash 2009 dash 0030 based on errata sheet two as
16 presented by staff today with the following changes:
17 Adding and slash or in 12 dot C dot 2, adding water
18 districts and sanitation districts to attachment three.

19 The de minimus permit language is laid out on
20 the overhead screen in three dot two little i's dot A, and
21 not just in footnote 55, but where ever appropriated in
22 the ordinance indicate that appeals go to the Board of
23 Directors.

24 MS. BESWICK: Is there a second?

25 MR. GUNDY: Second.

1 ~~MS. BESWICK: Now, any discussion on the motion?~~

2 MR. RUH: When you have the appeal going to the
3 Board for this, remember, you're setting precedent for
4 everything else, and I really question that.

5 MS. BESWICK: Yes. Do you have a clarifying
6 question?

7 MR. THIBEAULT: A clarifying question: Would you
8 be expecting us to review it first, and if there were no
9 issues, we could approve it?

10 MR. PONTELL: Yes.

11 MS. BESWICK: Oh, absolutely.

12 MR. THIBEAULT: But then if there are issues, then
13 they would be brought to the Board.

14 MR. PONTELL: The permittee has the opportunity to
15 appeal.

16 MS. BESWICK: To appeal, but are we talking
17 about --

18 MR. PONTELL: Hopefully that won't be necessary.

19 MS. BESWICK: We're appealing a permit?

20 MR. PONTELL: No, the denial. If the Executive
21 Officer denies the Model Water Quality Permit as being,
22 over the next 12 months, being developed by the
23 permittee, the permittee has the opportunity to appeal
24 it to the Board -- to our Board and then ultimately to
25 the State Board.

1 MS. BESWICK: Should we deny the appeal.

2 MR. PONTELL: Should we deny it.

3 MR. FRESCHI: I thought that was pretty much what
4 we agreed to last month.

5 MS. BESWICK: Right. I just want to be sure that
6 everybody was clear about what we were agreeing to. And
7 I wanted to make sure that you were clear about what we
8 were agreeing to --

9 MR. THIBEAULT: I am now.

10 MS. BESWICK: -- since it wasn't in the original
11 proposal.

12 Anything else?

13 MR. FRESCHI: I just might add, being the newbie on
14 the Board, that having from November of last year until
15 now to submit all your complaints and make these -- and
16 have these stake holder meetings to make changes, I
17 think that's pretty reasonable. That's all. I think
18 it's pretty reasonable.

19 You had a lot of time, and you folks are
20 experts at this. I'm surprised that we had all the
21 contentiousness that we had today.

22 MS. BESWICK: Well, except that last month --

23 MR. FRESCHI: Realizing that you had since November
24 to do it.

25 MS. BESWICK: But the last month has been a

1 moving -- you know, new things evolving. But the other
2 piece of it is that at some point it's up to us to make
3 decisions, and that's what today was about.

4 MR. PONTELL: And if I can also make a comment is
5 I think that the staff for the Water Quality Board, the
6 permittee, all the affected agencies, the construction
7 industry, the N.R.D.C. -- I very much appreciate the
8 amount of energy and effort and just the quality of
9 thinking going into this. And at the end of day it is
10 my perception that everybody has the same goal.

11 So I think what gives me comfort is over the
12 next 12 months, we have the opportunity -- you have the
13 opportunity to continue to, you know, refine how this is
14 going to play out. And things will continue to change.
15 This is very much a moving target.

16 So thank you, everybody, very much for all the
17 time and energy that's been invested in this.

18 MR. FRESCHI: And I would like to second those
19 remarks, and I was -- in not bringing it up because you
20 certainly are accurate in that.

21 MS. BESWICK: If there are no other comments, then
22 I'm going to call for the question and ask all those in
23 favor to say aye.

24 BOARD MEMBERS: Aye.

25 MS. BESWICK: Any opposed?

1 We don't need a roll call.

2 That takes care of that. Thank you, everyone,

3 staff, all of you who have been working through this.

4 That's greatly appreciated.

5 And I think that concludes our agenda.

6 (Board meeting adjourned at 12:21 p.m.)

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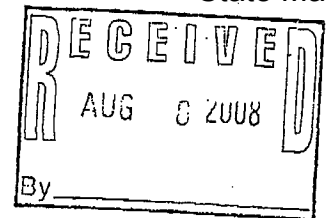
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Attachment 39



POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

PUGET SOUNDKEEPER ALLIANCE;
PEOPLE FOR PUGET SOUND; PIERCE
COUNTY PUBLIC WORKS AND
UTILITIES DEPARTMENT; CITY OF
TACOMA; PORT OF SEATTLE;
SNOHOMISH COUNTY; CLARK
COUNTY; PACIFICORP; and PUGET
SOUND ENERGY,

Appellants,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent,

CITY OF SEATTLE; KING COUNTY;
PORT OF TACOMA; PACIFICORP;
PUGET SOUND ENERGY; STATE OF
WASHINGTON, DEPARTMENT OF
TRANSPORTATION,

Intervenors.

FINDINGS OF FACT, CONCLUSIONS
OF LAW, AND ORDER

PHASE I

PCHB NOS. 07-021, 07-026, 07-027
07-028, 07-029, 0-030,
07-037

These consolidated appeals involve the regulation of stormwater discharges from municipal storm sewer systems under a National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit (State Waste Permit). In these appeals, multiple parties challenge the validity of the Department of Ecology's (Ecology) 2007 Phase I Municipal Stormwater General Permit (Phase I Permit). This permit was issued pursuant to the

1 Federal Water Pollution Control Act, commonly known as the "Clean Water Act" (CWA), 33
2 U.S.C. § 1251 *et seq.* and the state Water Pollution Control Act, (WPCA), Chapter 90.48 RCW.

3 The Pollution Control Hearings Board (Board) held a multiple day hearing between April
4 29, 2008 and May 8, 2008. Attorneys Todd True and Jan Hasselman represented Appellants
5 Puget Soundkeeper Alliance and People for Puget Sound (PSA). Attorney Tad H. Shimazu
6 represented Appellant Pierce County. Assistant City Attorney Doug Mosich represented
7 Appellant City of Tacoma. Attorneys Susan Ridgley and Tanya Barnett represented Appellant
8 Port of Seattle. Catherine A. Drews and Elizabeth E. Anderson, Deputy Prosecuting Attorneys,
9 represented Appellant Snohomish County. E. Bronson Potter, Senior Deputy Prosecuting
10 Attorney and Rodney Swanson, Clark County Department of Public Works represented
11 Appellant Clark County. Attorneys Loren R. Dunn and Blake Mark-Dias represented Appellants
12 Pacificorp and Puget Sound Energy (Utilities). Ronald L. Lavigne, Senior Counsel, and Thomas
13 J. Young, Assistant Attorney General represented Respondent Ecology. Assistant City Attorney
14 Theresa R. Wagner represented Intervenor City of Seattle. Senior Deputy Prosecuting Attorney
15 Joseph B. Rochelle and Deputy Prosecutor Verna P. Bromley represented Intervenor King
16 County. Attorney Carolyn Lake represented Intervenor Port of Tacoma. Stephen Klasinski,
17 Assistant Attorney General represented Intervenor Washington State Department of
18 Transportation (WSDOT).

19 Chair, Kathleen D. Mix, William H. Lynch, and Andrea McNamara Doyle comprised the
20 Board. Administrative Appeals Judge Kay M. Brown, presided for the Board. Randi Hamilton
21

1 and Kim L. Otis of Gene Barker and Associates of Olympia, Washington provided court
2 reporting services.

3
4 PROCEDURAL BACKGROUND

5 On January 17, 2007, Ecology issued the Phase I Permit for discharges from large and
6 medium municipal separate storm sewer systems (called MS4s). The Phase I Permit went into
7 effect on February 16, 2007.

8 PSA, Pierce County, City of Tacoma, Port of Seattle, Snohomish County, Clark County,
9 and the Utilities appealed the Phase I Permit.¹ The Board conducted pre-hearing conferences,
10 and entered pre-hearing orders for the Phase I Appeal. The parties raised multiple issues. The
11 Board addressed many of these issues in a separate summary judgment order² and has resolved
12 others through orders on summary judgment and after a hearing on the merits related to the
13 Permit's Special Condition S4.³ The parties also withdrew some of the issues. This decision
14 resolves the remaining issues, which include the following:⁴

15 C. Special Condition 8 re: Monitoring (challenged only by Clark and Pierce
16 County)⁵

17 ¹ City of Pacific (PCHB No. 07-031), Whatcom County (PCHB No. 07-032), and Sammamish Plateau Water &
18 Sewer District (PCHB No. 07-024) filed additional appeals, but they are not part of this consolidated action.

² See Order on Dispositive Motions (Phase I Municipal Stormwater Permit), issued on April 7, 2008.

³ See Order on Dispositive Motions: Condition S4, issued on April 2, 2008 and Findings of Fact, Conclusions of
19 Law and Order, Condition S4, issued on August 7, 2008.

⁴ The numbering of these issues was retained from the numbering system used in the Third Pre-Hearing Order
20 issued on December 11, 2007.

⁵ All of the permittee appellants initially raised issues related to the S8 monitoring provisions. These issues were
21 resolved through an agreement between Ecology and all of the permittee appellants except Clark and Pierce County.
See Ex. Ecy 11 (Phase I). The agreement also resolves issues raised by Snohomish County related to Special
Condition S7.

1 1. Whether the requirements imposed in Special Condition S8 are lawful,
2 practicable, reasonable, and/or designed to achieve the goals of the statutory
municipal stormwater permit program?

3 3. Whether the monitoring requirements imposed in Special Condition S8 are
4 overly broad, overly prescriptive, and cost-ineffective so that requiring
5 implementation of such requirements as written is unlawful, impracticable,
and/or unreasonable?

6 E. Issues Specific to the Ports of Seattle and Tacoma

7 5. Whether the requirement in Special Condition S6.E.7 to prepare and
8 implement SWPPP(s) for "all Port-owned lands," regardless of their capacity
to generate pollutants or other site-specific characteristics, is unlawful,
unreasonable, unjust, or invalid?

9 F. Joint Environmental Legal Issues

10 1. Low-Impact Development:

- 11 a. Does the permit fail to require maximum on site dispersion and
12 infiltration of stormwater, through the use of "low impact
development" techniques, basin planning, and other appropriate
13 technologies, and if so, does that failure unlawfully cause or contribute
to violations of water quality standards?
- 14 b. Does the permit fail to require maximum onsite dispersion and
15 infiltration of stormwater, through the use of "low impact
development" techniques, basin planning, and other appropriate
16 technologies, and if so, does that failure unlawfully allow permittees to
17 discharge pollutants that have not been treated with all known
available and reasonable methods of treatment ("AKART"), and/or fail
to reduce the discharge of pollutants to the maximum extent
practicable ("MEP")?

18 2. Existing Development:

- 19 a. Does the absence of any standard and/or technology requirements for
20 reducing stormwater discharges from existing development and
existing stormwater systems unlawfully cause or contribute to
21 violations of water quality standards?

1 b. Does the absence of any standard and/or technology requirements for
2 reducing stormwater discharges from existing development and
3 existing stormwater systems unlawfully allow permittees to discharge
4 pollutants that have not been treated with AKART, and/or fail to
5 reduce the discharge of pollutants to MEP?

6 3. Monitoring: Is the monitoring required under Permit Condition S.8 unlawful
7 because it is inadequate to determine whether: (i) the permittee is in
8 compliance with water quality standards; (ii) discharges are causing or
9 contributing to violations of water quality standards; or (iii) discharges are
10 being treated with AKART and/or MEP?⁶

11 4. Water Quality Standards Violations:

12 a. Does the Phase I permit fail to ensure that discharges will not cause or
13 contribute to violations of water quality standards?⁷

14 5. Compliance:

15 a. Does the permit unlawfully provide for compliance with permit terms
16 on a schedule that is indefinite and unenforceable, not as expeditious
17 as possible, and/or in excess of statutory deadlines?

18 b. Does the permit unlawfully allow a permittee to create and implement
19 permit requirements without Ecology's oversight or involvement?

20 Based on pre-filed testimony, multiple days of sworn testimony of witnesses, extensive
21 exhibits submitted into the record, and argument from counsel representing the numerous parties
22 that participated in these consolidated appeals, and having fully considered the record, the Board
23 enters the following decision:

24 ⁶ PSA is not challenging the monitoring provisions of the permit. This issue is brought by the Utilities only.

25 ⁷ This issue also includes the issue originally stated as S4.6: Does the prohibition on violations of water quality
26 standards contained in Permit Condition S4 unlawfully or unreasonably conflict with the other provisions of the
27 permit?

1 SUMMARY OF THE DECISION

2 The Board concludes that the monitoring program established in Special Condition S8
3 and required of all permittees is a valid exercise of Ecology's technical expertise and discretion.
4 (Issues C.1 and 3, and F.5). The Board upholds the permit term requiring that Stormwater
5 Pollution Prevention Plans (SWPPPs) be prepared on all port-owned lands, but directs that
6 Ecology modify the condition to exempt environmental mitigation sites owned by the Port of
7 Tacoma from the SWPPP preparation requirement. (Issue E.5). The Board concludes that the
8 Phase I Permit fails to require that the municipalities control stormwater discharges to the
9 maximum extent practicable, and does not require application of all known, available, and
10 reasonable methods to prevent and control pollution, because it fails to require more extensive
11 use of low impact development (LID) techniques. (Issue F.1.b). To remedy this problem, the
12 Board directs Ecology to make specific changes to some provisions in the permit, and also
13 remands the permit with direction to Ecology to require the permittees to develop methods for
14 use of low impact development at parcel and subdivision levels in their jurisdictions. The Board
15 concludes that permittees must provide information in their annual report to Ecology on the
16 extent to which basin planning is being undertaken or should be considered in their jurisdiction
17 in order to assist with future phases of the permit. The areas identified should be relatively
18 undeveloped where new development is occurring, and from which discharges may impact
19 aquatic resources. The Board concludes that the structural stormwater control program
20 provisions of the permit, as drafted, constitute impermissible self regulation. (Issues F.2 and
21 F.5.b). To remedy this deficiency, the Board directs modification of the permit to require

1 permittees to describe the prioritization of their selected structural control projects. The Board
2 affirms the source control program requirements without change. Finally, the Board concludes
3 that PSA and the Utilities failed to prove that any of the conditions of the permit violate the
4 timing requirements of 33 U.S.C. § 1342 (p)(4)(A) (Issue F.5.a).

5 FINDINGS OF FACT

6 A. History of Phase I Permit

7 1.

8 Ecology developed the current Phase I Permit through an eight year long process. The
9 2007 Phase I Permit replaced the first municipal stormwater NPDES and State Waste Permits,
10 which were issued in 1995 and expired in July of 2000. *Testimony of Wessel, Moore, Exs. Muni*
11 *0002, p. 17, 0006, 0007, 0008, 0009.*

12 2.

13 On January 19, 1999, Ecology filed a Notice of Intent to reissue the 1995 permits. *Ex.*
14 *Muni 0002, p. 6.* Ecology formed an advisory committee, which included representatives from
15 cities, counties, state and federal agencies, environmental groups, and the public, to assist with
16 development of the revised permit. This committee met several times during 1999 and 2000.
17 *Testimony of Wessel, Moore, Exs. Muni 0002, p. 6-7.* The 1995 Phase I Permit closely followed
18 the EPA Phase I Regulations, which allowed the permittees to propose what was contained
19 within their own stormwater programs. Ecology was dissatisfied with this approach and decided
20 that more detailed requirements were needed for the 2007 Phase I Permit. *Testimony of Moore.*
21

1 3.

2 Completion of the new permit was delayed at several junctures as a result of a number of
3 intervening events and shifting priorities, including the federal listing of Puget Sound Chinook
4 Salmon in 1999, the adoption of EPA's Phase II rules, and Ecology's decision to revise the
5 state's Stormwater Management Manuals and develop the first Phase II municipal stormwater
6 permits in tandem with the Phase I permit update. *Testimony of Wessel, Moore, Exs. ECY 6*
7 *(Phase I), Muni 0002, p. 7.*

8 4.

9 In response to legislative interest in the new federal requirements for municipal
10 stormwater permits, Ecology convened two advisory groups during the summer of 2003: one for
11 Eastern Washington and one for Western Washington. Each advisory group submitted a report
12 of its findings to Ecology in early December, 2003. Ecology developed its own
13 recommendations and published these, together with the recommendations from both advisory
14 groups, in a report to the Legislature dated January, 2004. *Testimony of Moore, Exs. ECY 6*
15 *(Phase I), Muni 0002, p. 7.*

16 5.

17 Ecology filed a notice of intent to issue the Phase I and Phase II Permits in June of 2004.
18 The agency released the first preliminary draft of the Phase I Permit for public comment in May,
19 2005, and the first formal draft in February, 2006. *Exs. PSA 018, Muni-0100.* Ecology received
20 and reviewed thousands of pages of public comment, and responded to those comments in a 205
21 page document when it released the revised, final permit in January, 2007. *Exs. Muni 002, p. 7-*

1 8, *ECY 3 (Phase I)*. Ecology issued the Phase I permit, in its current form, on January 17, 2007.
2 It became effective on February 16, 2007, and expires on February 15, 2012. *Ex. Muni 001,*

3 *Testimony of Moore.*

4 B. Overview of the permit

5 6.

6 The Phase I Permit regulates discharges from municipal separate storm sewer systems
7 (MS4s) owned or operated by the following large and medium municipalities statewide: City of
8 Seattle, City of Tacoma, Clark County, King County,⁸ Pierce County and Snohomish County.⁹ It
9 also allows coverage of "secondary permittees," including the Ports of Seattle and Tacoma, for
10 discharges from other publicly owned or operated municipal separate sewer systems located
11 within the primary permittee cities and counties. Secondary permittees as a group are subject to
12 somewhat different terms under the permit than primary permittees, and the permit also has
13 specific terms applicable only to the Ports of Seattle and Tacoma and not other secondary
14 permittees. The Phase I permit does not cover direct discharges into waters of the state from
15 privately owned stormwater systems, nor does it cover the storm sewers owned and operated by
16 the Washington State Department of Transportation (WSDOT).¹⁰ Unlike traditional NPDES
17 permits, the Phase I permit is a "programmatic permit," meaning it requires the municipal

18 ⁸ King County Department of Metropolitan Services (METRO) is covered as a "co-permittee" with the City of
19 Seattle for discharges from outfalls King County owns or operates in the City of Seattle. *Special Condition S1.C.,*
Ex. Muni 0001, p. 1, Muni 0002, p. 21.

20 ⁹ An MS4 consists of all of the conveyances, or systems of conveyances (including roads with drainage systems,
municipal streets, catch basins, curbs gutters, ditches manmade channels or storm drains) designed or used for
collecting or conveying stormwater. By definition, these systems cannot be combined with sanitary sewer systems.
Ex. Muni 0001, p. 61, 63, Muni 0002, p. 22-24.

21 ¹⁰ The Phase I permit does not cover the storm sewers owned and operated by the Washington State Department of
Transportation (WSDOT). WSDOT's system is covered under an individual permit. *Ex. Muni 0002, p. 19, 21.*

1 permittees to implement area-wide stormwater management programs rather than establishing
2 benchmarks or other numeric or narrative effluent limits for stormwater discharges from
3 individual outfalls. *Testimony of Moore, Exs. Muni 0001, p. 1, 2, 60-65, Muni 0002, p 20-24.*

4 7.

5 The heart of the Phase I Permit requires that permittees implement a Stormwater
6 Management Program (SWMP). Special Condition S5 contains the SWMP requirements for the
7 primary permittees, and Special Condition S6 sets out the SWMP requirements for secondary
8 and co-permittees. The required elements of the SWMP track closely with EPA's Part II
9 Application rules but contain much more detailed minimum performance standards for the
10 municipalities' programs. This approach avoids the need for separate review and approval by
11 Ecology of each SWMP prior to coverage under the Phase I Permit. Instead, a permittee is
12 required to submit the SWMP with the permittee's first year annual report. S5.A. *Testimony of*
13 *Moore, Wessel; Exs. Muni 0001, p. 6-25; Muni 0002, p. 18, 28-42.*

14 8.

15 Ecology views these SWMP requirements, in the aggregate, to represent the MEP
16 standard; that is, permittees who implement all of the program requirements in combination with
17 one another are considered by Ecology to be reducing the discharge of pollutants to the
18 maximum extent practicable, even though it may be possible for a permittee to do more in a
19 specific program element or at a specific outfall if the individual requirements were evaluated in
20 isolation from the rest of the program requirements. *Testimony of Moore.*

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Under Special Condition S5 the SWMP must include ten component parts, which are mandatory to the extent allowable under state and federal law. These program components address the following topics, and the minimum requirements for each are set out in S5.C. 1 through 10 of the Phase I Permit: (1) Legal authority; (2) System mapping and documentation; (3) Coordination; (4) Public involvement; (5) Controlling runoff from new development, redevelopment, and construction; (6) Structural stormwater controls (retrofits); (7) Source control for existing development; (8) Illicit connections, illicit discharge detection and elimination; (9) Operations and maintenance; and (10) Education and outreach. *Muni 0001, p. 6-25.*

10.

More specifically, S5.C.1 requires the permittee to demonstrate by the effective date of the Phase I Permit that it has the legal authority to control discharges to and from its MS4s. S5.C.2 requires the permittee to map, by specific dates, prescribed parts of its MS4. S5.C.3 requires the permittee to establish coordination mechanisms to remove barriers to stormwater management created by the need to coordinate efforts both internally within one governmental entity, and externally with jurisdictions that share drainage basins. S5.C.4 requires the permittee to provide ongoing opportunities for public involvement in its stormwater management program. S5.C.5 requires the permittee to develop a program to prevent and control impacts of runoff from new development, redevelopment, and construction activities. S5.C.6 requires the permittee to

1 include a program to construct structural stormwater controls to prevent or reduce impacts from
2 discharges from its MS4s. This element is applicable to existing development, as well as new
3 development, and addresses impacts that are not already adequately controlled by other required
4 actions under the SWMP. S5.C.7 requires the permittee to include a source control program for
5 existing development that reduces pollutants in runoff from these areas. S5.C.8 requires the
6 permittee to have an ongoing program to detect, remove and prevent illicit connections and illicit
7 discharges, including spills, into its MS4s.¹¹ S5.C.9 requires the inclusion of a program to
8 regulate maintenance activities and to conduct maintenance activities by the permittee that
9 prevent or reduce stormwater impacts. S5.C.10 requires that the permittee's SWMP include an
10 education program with the goal of reducing or eliminating behaviors and practices that cause or
11 contribute to adverse stormwater impacts. The performance measures associated with S5.C.2
12 through 10 must be completed within specific time periods. *Testimony of Moore, Wessel, Exs.*
13 *Muni 0001, p. 6-25, Muni 0002, p. 28-42.*

14
15 11.

16 Special Condition S6 (S6), which is similar but not identical to S5, establishes the
17 components required for SWMPs from secondary permittees. Parts of this condition apply to all
18 secondary permittees (S6.A, B and C), all secondary permittees other than the Ports of Seattle
19

20 ¹¹ An illicit connection is any man-made conveyance that is connected to a MS4 without a permit, excluding roof
21 drains and other similar type connections. An illicit discharge is any discharge to a MS4 that is not composed
entirely of stormwater except discharges pursuant to a NPDES permit and discharges resulting from fire fighting
activities. *Ex. Muni 0001, p. 61.*

1 and Tacoma (S6.D), and just the Ports of Seattle and Tacoma (S6.E). *Testimony of Moore, Exs.*
2 *Muni-0001, p. 25-39, Muni-0002, p. 42-47.*

3 12.

4 Special Condition S8 (S8) addresses monitoring. It requires the primary permittees and
5 the Ports to develop and implement long-term monitoring programs for the purpose of meeting
6 two of the four monitoring objectives identified in the first round of the Phase I municipal
7 stormwater permits issued in 1995: (1) estimating pollutant concentrations and loads from
8 representative areas or basins; and (2) evaluating the effectiveness of selected Best Management
9 Practices (BMP). The permit does not require monitoring to identify specific sources of
10 pollutants or the degree to which stormwater discharges are impacting selected receiving waters
11 and sediments. *Testimony of Moore, O'Brien, Exs. Muni 0001 p. 40-49; Muni 0002, p. 49-50.*

12 C. Monitoring provisions in S8

13 13.

14 Special Condition S8.C.1 specifies that the primary permittees' and the Ports' monitoring
15 programs must contain three components: 1) stormwater outfall monitoring, which is intended to
16 characterize stormwater runoff quantity and quality at a limited number of locations 2) Targeted
17 stormwater management program effectiveness monitoring, which is intended to improve
18 stormwater management efforts by evaluating at least two stormwater management practices that
19 significantly affect the success of, or confidence in, stormwater controls, and 3) BMP evaluation
20 monitoring, which is intended to evaluate the effectiveness and operation and maintenance
21 requirements of stormwater treatment and hydrologic management BMPs. S8.D, E, and F set out

1 the requirements for each of the three components. *Testimony of Moore, O'Brien, Exs. Muni*
2 *0001, p. 40-49; Muni-0002, p. 49-56.* A Quality Assurance Project Plan (QAPP) must be
3 prepared for each of the components of the monitoring program in accordance with Ecology
4 guidelines and submitted to Ecology for review. Ecology must review and approve the QAPPs
5 for stormwater monitoring conducted under S8.D and F prior to monitoring. *Ex. Muni 0001, p.*
6 *40-41.*

7 14.

8 The first component of the Special Condition S8 monitoring involves outfall monitoring
9 for the purpose of developing local knowledge of pollutant loads and average event mean
10 concentrations from representative areas drained by MS4s. Developing a baseline of local data
11 is important because some variations are emerging between stormwater characterization data
12 from the Pacific Northwest and other areas around the county and world, with examples of both
13 higher and lower concentration levels present regionally, differing from national averages. To
14 accomplish this objective, the Permit requires permittees to select three sites that represent
15 different land uses and then to monitor a certain percentage of storm events per year for a wide
16 range of constituents and parameters. The permit requires storm events to be sampled using
17 flow-weighted composite storm sampling. S8.D.2.b. The seasonal first-flush must be tested for
18 toxicity. S8.D.2.d. Grab samples from each storm must be taken and tested for total petroleum
19 hydrocarbon and fecal coliform bacteria, and one to three sediment samples must be collected
20 each year at each site and analyzed for a variety of parameters. S8.D.2.e, f. *Testimony of*
21 *O'Brien, Moore, Ex. Muni 0001, p. 41-45.*

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The number of samples is intended to establish a sufficient database from which to discern annual and seasonal loading trends over a long time period. Performing a toxicity test on the "seasonal first-flush storm" provides an annual worst case scenario. Ecology believes this data is necessary to evaluate whether stormwater management programs are making progress towards the goal of reducing pollutants discharged and protecting water quality. The data would also be useful when establishing Water Clean-up Plans (TMDLs) for water bodies not currently achieving water quality standards, and in other efforts to identify sources of toxicant loading to Puget Sound. *Testimony of O'Brien, Ex. Muni 0002, p. 49-53.*

16.

The second component of the S8 required monitoring, described in detail in S8.E, is the targeted stormwater management program effectiveness monitoring. In this section, each permittee must conduct monitoring designed to determine the effectiveness of (1) a targeted action (or narrow suite of actions) from their SWMP, and (2) achieving a targeted environmental outcome. The monitoring must, at a minimum, include stormwater, sediment or receiving water monitoring of physical, chemical and/or biological characteristics, and may also include other kinds of data collection and analysis. Ecology anticipates that the targeted environmental outcomes permittees will chose to evaluate will be measured in the receiving water and, therefore, may involve receiving water monitoring. *Testimony of O'Brien, Moore, Exs. Muni 0001, p. 45-46; Muni 0002, p. 53-54.*

1 17.

2 The third component of the S8 monitoring provisions is BMP effectiveness monitoring,
3 the requirements of which are set out in S8.F. The purpose of this third component of the S8
4 monitoring is to develop local performance data on the effectiveness of specific treatment BMPs
5 in reducing pollutant discharges and the effectiveness of various low impact development (LID)
6 practices in reducing the quantity of runoff. This section requires the primary permittees and
7 Ports to select and monitor two treatment BMPs in use at a minimum of two sites in their
8 jurisdiction. S8.F.2. The permittees are also required to monitor the effectiveness of one flow
9 reduction strategy¹² that is in use or planned for installation in their jurisdiction. S8.F.7. Though
10 many of these treatment BMPs have been in common use for many years, and the 2005
11 Stormwater Management Manual for Western Washington relies on them as presumptively
12 effective, Ecology has only incomplete information about their actual pollutant removal
13 capabilities. *Testimony of O'Brien, Exs. Muni 0001, p. 46-47; Muni 0002, p. 54-56.*

14 18.

15 In the absence of local data, Ecology had relied on an existing national stormwater
16 treatment BMP database,¹³ as its primary source of BMPs for the 2005 Stormwater Management
17 Manual for Western Washington (The Manual) *Testimony of O'Brien, Tobiason, Exs. PI 0059,*
18 *0060, 0064 and 0065.* The national database is of limited utility, however, in evaluating the
19

20 ¹² A flow reduction strategy is an approach that reduces the volume of runoff coming off a landscape. Ecology
witness Ed O'Brien indicated in his testimony that this referred to the use of low impact development techniques.

21 ¹³ The purpose of the database, called the International Stormwater Treatment Database, is to facilitate
understanding about how particular BMPs perform database and contains studies from both inside and outside the
United States. *Testimony of O'Brien.*

1 effectiveness of BMPs because the performance of treatment BMPs varies greatly depending on
2 specific design criteria, loading criteria, different rainfall patterns, and the types and sizes of
3 solids to which a site gets exposed. These factors vary widely across the country, and therefore
4 BMP performance data from one area is not always useful for another area. This has been a
5 specific concern for Washington because, until recently, there has been little Washington data in
6 the database. In some instances, this national database lacks also data quality, and relies on an
7 insufficient number of samples at a particular site or from a particular BMP to be statistically
8 useful. So, while there exists national data that allows Ecology to make some general
9 assumptions about how well BMPs perform, Ecology still lacks site-specific, region-specific data
10 to verify that the BMPs perform the way Ecology anticipates they will perform. As a result,
11 Ecology required permittees to evaluate BMP effectiveness in an effort to learn and apply the
12 information in future settings and permit iterations. *Testimony of O'Brien, Tobiasson, Kibbey,*
13 *Exs. PI 0059, 0060, 0064, 0065, Muni 0002, p. 54-56.*

14 19.

15 Ecology considered requiring receiving water monitoring in the Phase I Permit, but the
16 municipalities as a group opposed the requirement. The 1995 Phase I Permit identified one
17 monitoring objective as evaluating the degree to which stormwater discharges impact selected
18 receiving waters and sediments, and Ecology concedes this continues to be a valid long-term
19 objective for the municipal stormwater general permits. In the current iteration of the Phase I
20 Permit Ecology decided, however, that receiving water monitoring data would not be the most
21 helpful monitoring data because 1) receiving water monitoring data is more complex data to

1 obtain, 2) samples can be hard to collect during storms, and 3) it is difficult to tie the receiving
2 ~~water data back to a specific discharger. Ecology agreed with the municipalities that certain~~
3 receiving waters may receive pollution from multiple upland sources, and monitoring the
4 receiving water would not provide permittees with useful data by which they could develop or
5 tailor their stormwater management programs. Ecology also does not typically require receiving
6 water monitoring under several other general stormwater discharge permits, including the
7 construction and industrial permits, except for certain impaired water bodies where there have
8 been violations of discharge limitations. *Testimony of Moore, O'Brien. Ex. Muni 0002, p. 49.*

9 20.

10 The monitoring required by S8 is primarily aimed at developing a uniform baseline of
11 information about the pollutant loading discharging from MS4s, and evaluating the effectiveness
12 of the BMPs that permittees use to control and reduce the pollutants discharging from those
13 systems. Ecology determined this data will be the most useful for establishing what constitutes
14 maximum extent practicable reduction in pollutants from MS4 discharges for future iterations of
15 the municipal stormwater permits. Allowing some municipalities to opt out of these
16 requirements, by substituting different kinds of monitoring, would reduce the robustness of the
17 data set Ecology seeks for establishing this baseline for future permits. *Testimony of Moore,*
18 *O'Brien.*

19 21.

20 Ecology intends to rely on its own monitoring programs, coordinated with and
21 supplemented by other monitoring efforts, to accomplish the receiving water monitoring

1 objectives identified in the 1995 permit. Ecology received an \$800,000 state appropriation to
2 begin work with a collaborative monitoring consortium to identify the elements of a
3 comprehensive receiving water monitoring program, outside of the permit process. Such a
4 monitoring consortium could more fairly distribute the cost of monitoring among all of the
5 entities with an interest in receiving water data and form the basis for effective, region-wide
6 monitoring of receiving water quality in relation to discharge points. Although Ecology is
7 currently organizing the consortium, no water monitoring has been started to date through this
8 program, and inadequate funding currently exists to do so. Outside the consortium, some
9 receiving water monitoring occurs through statewide ambient water quality monitoring and
10 pollutant specific monitoring where a water body is subject to a TMDL. *Testimony of Moore,*
11 *O'Brien, Wessel.*

12 D. Pierce and Clark Counties Monitoring Plans

13 22.

14 Two primary permittees, Pierce and Clark Counties, already have water quality
15 monitoring programs which differ significantly from the monitoring required in the Phase I
16 Permit. The key difference between both of the counties' programs, and the Phase I Permit
17 monitoring requirements, is that the county programs focus on monitoring in the receiving water
18 environment. However, neither of the County programs monitors the chemical composition or
19 toxicity of stormwater discharges from their MS4, nor relates stormwater management actions to
20 a reduction in the pollutant characteristics of stormwater. *Testimony of Tobiason, O'Brien, Exs.*
21 *PSA 018, PI 0042.*

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Pierce County began working with a consultant in 2004 to develop its monitoring program. The County developed the program based on the proposed monitoring requirements in an early draft of the Phase I permit, which included a receiving water monitoring component, as well as ongoing communications with Ecology personnel. The 2005 draft of the Phase I permit prescribed two of the five monitoring methods that Pierce County incorporated into its monitoring plan. *Ex. PI 0041*. Pierce County published its final program in March, 2007.

Testimony of Tobiason, O'Brien, Ex. PI 0042.

24.

The overall goal of the Pierce County monitoring program is to implement a comprehensive monitoring program that will provide meaningful data to support the County's efforts to protect receiving waters from stormwater impacts. Although developed primarily in anticipation of the NPDES permit requirements, it also serves other county water quality objectives. In order to accomplish its goal, the program uses a three level receiving water monitoring approach. It includes long term status and trends monitoring, which includes a triad of bioassessments, physical channel characterization, and in-situ bioassays at existing County monitoring sites in selected streams, and may also include flow monitoring where gauges exist. Pierce County includes the sampling of the stream bottom as part of this long-term monitoring in order to determine the presence and health of benthic invertebrates. Monitoring benthic invertebrates provides a good indicator of watershed health because these organisms respond to physical and chemical stresses at the stream bottom. Pierce County applies these monitoring

1 methods over a five year period to characterize the receiving waters in up to nine watersheds
2 with regards to the receiving waters' physical stability, habitat, biological health, and
3 susceptibility to toxicants in stormwater. This will enable Pierce County to prioritize responses
4 to watersheds that exhibit vulnerability. It also includes targeted development monitoring, which
5 compares upstream and downstream conditions to assess impacts of stormwater discharges on
6 the receiving waters over finite periods before and after specific development. Targeted
7 development monitoring includes continuous turbidity, conductivity and hydraulic stage
8 monitoring and *in-situ* bioassay upstream and downstream of discharges from targeted
9 development, and assessment of physical channel conditions downstream. Some aspects of the
10 County's monitoring program, particularly the real-time data, will also assist the county in
11 detecting spills and illicit discharges. The third level of receiving water monitoring included is a
12 special studies monitoring. This method provides for adaptive management to be employed as
13 needed on a site specific basis to develop cause-effect relationships that lead to focused
14 stormwater management response. As part of this method, chemical analysis may be conducted
15 if other programs indicate a need for such study to determine the cause of a problem discovered
16 through receiving water monitoring. This is the only aspect of the Pierce County Program that
17 provides for the use of chemical analysis. *Testimony of Tobiason, Kibbey, Exs. PI 0042, Ex. PI*
18 *0055, PI 0094.*

19 25.

20 Clark County, like Pierce County, has its own monitoring plan which is focused on
21 receiving water monitoring. Clark County developed its plan in response to its first

1 NPDES/State Waste permit which was issued July, 1999 and expired December, 2000.¹⁴ *Muni*
2 *0140, Special Condition S5.B.4, p. 7, 8.* Its plan has three elements: a long-term index site
3 project, hydrologic monitoring, and a stormwater needs assessment program. The index site
4 project involves nine stream stations which are influenced by stormwater, and a forested
5 reference site. A suite of stream health characteristics are monitored at each site. Water quality
6 monitoring takes place on a monthly basis. The hydrologic monitoring consists of monitoring
7 stream flow continuously through the use of storm gauges at several locations, including some of
8 the site index locations. The stormwater needs assessment program is a system created to make
9 an assessment of needs for each sub-basin in the county that contains parts of the MS4.
10 Currently, Clark County is in the process of completing reports on 12 urbanizing and rural sub-
11 watersheds. *Testimony of Swanson, Ex. Muni 0140, p. 7-8.*

12 26.

13 The monitoring required under the Phase I Permit is fundamentally different than the
14 monitoring contained in the Pierce and Clark County monitoring programs. The Counties'
15 monitoring programs do not routinely look at the chemical content or toxicity of stormwater
16 discharges, nor do they look at the effectiveness of treatment BMPs. *Testimony of O'Brien,*
17 *Tobiason, Kibbey.*

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21 ¹⁴ Clark County was not informed of the need to submit a permit application until January of 1995, because of
confusion over whether Clark County met the requirements of the Phase I Permit, i.e. urbanized area with a
population greater than 100,000. *Ex. Muni 0141, p. 8.*

1 27.

2 Ecology stated that it was extremely important to be able to answer whether our
3 stormwater programs are adequate to protect aquatic resources and uses in its 2004 report to the
4 Legislature. Therefore, Ecology included recommendations that certain types of environmental
5 monitoring be conducted at the local and regional levels, including monitoring of the biological,
6 chemical, and physical health of receiving waters. *Ex. ECY 6 (Phase I), p. 31-32.*

7 28.

8 Ecology does not oppose the Counties continuing on with their own monitoring programs
9 in addition to the S8 monitoring. However, it has not allowed Pierce and Clark Counties to
10 substitute their programs for the required S8 monitoring. Ecology witness Edward O'Brien did
11 not rule out the possibility that Ecology could allow Pierce and Clark to substitute their
12 monitoring programs for some parts of the required S8 monitoring. Pierce County witness
13 Heather Kibbey testified that Pierce County could not afford to do both its receiving monitoring
14 program and the required S8 monitoring. *Testimony of O'Brien, Tobiason, Kibbey.*

15 E. Ports

16 29.

17 One of the required elements of the SWMP for all Phase I permittees is the preparation of
18 a stormwater pollution prevention plan (SWPPP). The permit requires all primary permittees to
19 prepare SWPPS for "all heavy equipment maintenance or storage yards, and material storage
20 facilities owned or operated by the Permittee(s)" that are not already covered by another
21 stormwater discharge permit. S5.C.9.b.xi, p. 23, 24. The primary permittees are allowed 24

1 months to complete the development of their SWPPPs. The secondary permittees, other than the
2 Ports, are required to prepare SWPPPs for “material storage areas, heavy equipment storage
3 areas, and maintenance areas” not covered by another stormwater discharge permit. S6.D.6.a.vi,
4 p. 32. Their SWPPPs must also be completed within three years from the date of permit
5 coverage. *Testimony of Moore, Ex. Muni 0001, p. 23, 24, 32.* In contrast, the Ports’ SWPPP
6 preparation requirement, found in S6.E.7, requires the Ports to prepare SWPPPs “all Port-owned
7 lands” that are not covered by another stormwater discharge permit. The Ports are allowed 24
8 months to develop and implement their SWPPPs. *Ex. Muni 0001, p. 38.*

9 30.

10 The Port of Seattle estimates this requirement will involve the preparation of SWPPPs for
11 approximately 44 properties covering approximately 27 percent of its total Seaport acreage (286
12 acres).¹⁵ Some of these sites include port-controlled and operated facilities with multiple tenants,
13 such as Shilshole Marina and Fisherman’s Terminal, and several others consist of tenant-
14 controlled container areas. *Testimony of Guthrie, Exs. PI 0020, 0022.* The Port of Tacoma has
15 identified several port-owned sites that are not covered by other stormwater discharge permits,
16 some of which include buildings and parking lots leased to other businesses, others of which
17 consist of environmental mitigation sites. *Testimony of Graves, Ex. PI 0039.*

18 31.

19 The Phase I fact sheet explains Ecology’s general thinking regarding SWPPP preparation
20

21 ¹⁵ By agreement with Ecology, SWPPPs will not be required on “no discharge” properties, which include Port-
owned parks and properties with connections to Metro Stormwater Conveyances.

1 for the primary permittees. It states:

2 Ecology has determined that activities at certain sites owned or operated by permittees
3 are potentially similar to activities at sites regulated under the Industrial Stormwater
4 General Permit. For this reason this provision of the permit calls for developing
5 Stormwater Pollution Prevention Plans (SWPPPs) for these sites.

6 *Ex. Muni 0002, p. 41.*

7 32.

8 In the 2005 draft of the Phase I Permit, Ecology required SWPPP preparation for "all
9 Port-owned lands with potential pollutant-generating sources." *Ex. PSA 018, p. 37.* The final
10 permit eliminated the qualifier because Ecology expected that all port-owned lands would be
11 pollutant-generating sources, although Ecology did not consider wetland mitigation areas owned
12 by the Port of Tacoma when it made this decision. *Testimony of Graves, Moore, Exs. PSA 018,*
13 *p. 37; PI 0022, 0025-0027.*

14 33.

15 The Port of Tacoma owns several environmental mitigation sites (i.e. wetlands). Most of
16 these sites probably discharge directly to surface or ground waters of the state, and not to the
17 MS4. For the ones that do discharge to the MS4, there is only a small potential that the
18 discharges would carry pollutants. Therefore, preparation of SWPPPs on these sites is unlikely
19 to result in any corresponding water-quality benefits. *Testimony of Moore, Graves.*

20 34.

21 Ecology also explains in the fact sheet its reasons for providing a slightly different

1 standard for the Ports regarding SWPPP preparation. It states:

2 Ecology has determined that special consideration is needed for the Ports of Seattle and
3 Tacoma, distinguishing them from the broader group of Secondary permittees such as
4 diking and drainage districts and public universities. These ports are both located on
5 urban bays with documented water quality and sediment contamination problems that
6 may be linked to stormwater discharges. The infrastructure in both Seattle and Tacoma is
7 fairly old and the MS4s are heavily interconnected between each port and the respective
8 city. Also, both ports lease properties to tenants, of whom many, but not all, are required
9 to have coverage under the Industrial Stormwater General Permit. For these reasons this
10 permit establishes SWMP components that are specific to these two entities.

11 *Ex. Muni 0002, p. 43.*

12 35.

13 In general, the permit has more requirements for primary permittees SWMPs than it does
14 for the Ports. *Contrast* S5.C. 1 through 10 (establishing 10 components for primary permittees
15 SWMPs) p. 6-25 with S6.E (establishing 7 components for Ports SWMPs) p. 32-39. The source
16 control program for existing development, which is a component of both primary permittees and
17 the Ports SWMPs, also imposes more requirements on the primary permittees than it does the
18 Ports. *Contrast* S5.C.7, p. 13-15, with S6.E.7, p. 38-39. Further, the scope of the primary
19 permittees source control obligation is much wider than that of the Ports, because the primary
20 permittees are dealing with thousands of different sources, compared to a much more limited
21 number for the Ports. Therefore, the Ports will be preparing a much smaller number of SWPPPs
than the primary permittees. While Ecology suggests that the Guidance Manual for Preparation
of SWPPPs for Industrial Facilities can be used to assist in preparation of Port SWPPPs, it also
encourages the use of generic SWPPP provisions for sites grouped by type of activity, such as

1 parking lots. *Testimony of Moore, Guthrie, Exs. Muni 0001, p. 6-25, 33-39, Muni 0002, p. 44, PI*
2 *0021.*

3 36.

4 The Port of Seattle expects its tenant businesses to be involved in the preparation of the
5 required SWPPPs because they have the most familiarity with the pollution-generating activities
6 and source control opportunities at the individual sites, but the port, in its role as property
7 manager, will work cooperatively with tenants through its routine compliance assessment
8 process. For example, it has already provided its tenants with templates for preparing the
9 SWPPPs. This process will involve some cost and effort on the part of the tenants, but can also
10 serve as an opportunity for educating and training tenants in issues related to stormwater
11 management. *Testimony of Guthrie.* The Port of Tacoma intends to prepare the SWPPPs for its
12 existing tenant facilities which will require the port to become better informed about the details
13 of its tenant operations and pollutant-generating activities. For new facilities, the Port of Tacoma
14 intends to direct tenants to prepare the SWPPPs. *Testimony of Graves.*

15 F. Low Impact Development (LID)

16 37.

17 The major contention of PSAs' challenge to the Phase I permit is that traditional
18 structural engineered stormwater management practices are inadequate to address the municipal
19 stormwater problem and that the Permit should have also required greater use of Low Impact
20 Development (LID) practices on a broader and more comprehensive scale.
21

1
2 In the Phase I Permit, Ecology chose to regulate stormwater discharges from new
3 development and redevelopment primarily through the imposition of a flow control standard.
4 S5.C.5.b.i. *Ex. Muni 0001, p. 9, Testimony of O'Brien*. The flow control standard generally
5 requires new and redeveloped sites that discharge to surface waters to control the rate at which
6 stormwater is released from their sites so that the discharges do not cause accelerated stream
7 channel erosion. The flow control standard is not a LID concept, because, in contrast to LID
8 techniques, it is based on the premise that there will be discharges of stormwater from particular
9 sites, and it attempts to control the duration and frequency of high stormwater runoff flows.
10 Conventional stormwater management criteria frequently incorporate a post development peak
11 discharge rate for a 2- and 10-year storm event based upon possible property damage due to
12 flooding and stream bank erosion. These are becoming more recognized as insufficient because
13 they do not address the loss of storage volume to provide for groundwater recharge, they do not
14 adequately protect downstream channels from accelerated erosion, and the inspection and
15 maintenance costs are an increasing burden for local governments. The goal of LID, on the
16 other hand, is to minimize or prevent entirely the discharge of stormwater from the site. While
17 utilization of LID techniques may be useful (or even in some cases necessary) to meet the flow
18 control standard on a particular site, the flow control standard does not require the use of LID
19 techniques. *Testimony of O'Brien, Booth, Exs. ECY 4 (Phase I) p. 2-30 through 2-35, Ex. PSA-*
20 *053, p. 7.*

1 39.

2 In order to meet the Permit's flow control standard(s), facilities must be engineered so
3 that discharges are not predicted to exceed the predevelopment flow "durations" for a range of
4 storm events. The Stormwater Management Manual gives detailed design specifications for
5 sizing and constructing detention/retention facilities to meet the flow control standard. The
6 Manual itself recognizes the shortcomings of the use of engineered stormwater conveyance,
7 treatment and detention systems to control stormwater. It states, at page 1-25:

8 [These techniques] can reduce the impacts of development to water quality and
9 hydrology. But they cannot replicate the natural hydrologic functions of the natural
10 watershed that existed before development, nor can they remove sufficient pollutants to
11 replicate the water quality of pre-development conditions.

12 The primary focus of detention standards is on mitigating the worst impacts of large storm
13 events. These standards have little or no effect on small storm events, which can also cause
14 damaging increase in flows. Stated another way, the flow control standard addresses large
15 stormwater flow rates only, which occur only a small percentage of time (1%); and provides only
16 residual control to runoff the remainder of the time. *Testimony of O'Brien, Booth, Ex. ECY 4*
17 *(Phase I), p. 1-25, 2-30 through 2-35.*

18 40.

19 Another limitation of the flow control standard comes from a significant exception to the
20 requirement to achieve pre-developed discharge rates for basins that have had at least 40 percent
21 total impervious area since 1985. Phase I permit, Appendix 1, p. 25-27, and Manual, Section
2.5.7 Minimum Requirement # 7, pp. 2-33. For sites in these basins, the pre-developed condition

1 to be matched is the existing land cover. Most areas located within the Seattle city limits, many
2 areas within the City of Tacoma, and some areas in Bellevue and Everett would qualify for this
3 exception. *Testimony of O'Brien, Booth, Exs. ECY 4 (Phase I), p. 2-33, Muni 0001, Appendix 1,*
4 *p. 25-27.*

5 41.

6 The Phase I Permit defines LID as follows:

7 stormwater management and land development strategy applied at the parcel and
8 subdivision scale that emphasizes conservation and use of on-site natural features
9 integrated with engineered, small-scale hydrologic controls to more closely mimic pre-
10 development hydrologic functions.

11 *Ex. Muni 0001, p. 62.* Ecology adopted this definition from the Puget Sound Action Team's
12 Low Impact Development Manual (PSAT Manual), which is a technical manual published in
13 2005 to "provide stormwater managers and site designers with a common understanding of LID
14 goals, objectives, specifications for individual practices, and flow reduction credits that are
15 applicable to the Puget Sound region." *Ex. PSA 050, p.2.*¹⁶ Other definitions of LID offered in
16 testimony at the hearing differ from this definition primarily in the scale of application of LID.
17 Thomas Holz offers an almost identical definition to the one quoted above, but includes
18 application at the watershed scale in addition to the parcel or subdivision scale. *Testimony of*
19 *Holz, Ex. PSA 050, p.11.*

20 _____
21 ¹⁶ The advisory committee for the development of the PSAT Manual included Edward O'Brien, Tom Holz, and
Derek Booth. These three experts also testified at the Phase I hearing, *Testimony of Moore, Ex. PSA 050,*
Acknowledgements page and p. 2.

1 42.

2 While specific definitions of LID may vary, the concept of LID is well-established, and
3 the basic BMPs that constitute LID are well-defined. LID techniques emphasize protection of
4 the natural vegetated state, relying on the natural properties of soil and vegetation to remove
5 pollutants. LID techniques seek to mimic natural hydraulic conditions, reducing pollutants that
6 go into stormwater in the first instance, by reducing the amount of stormwater that reaches
7 surface waters. *Testimony of Horner, Booth, Holz.*

8 43.

9 LID techniques store, infiltrate and evaporate stormwater where it falls rather than collect
10 and convey it to surface waters off site, and can be implemented at an individual development
11 site level, as well as part of a broader strategy employed at a basin or watershed level. Site-level
12 LID BMPs include, but are not limited to, maintenance of natural vegetation on site; reduction of
13 impervious surfaces; protection of natural drainage patterns, use of minimal excavation
14 foundations such as pin foundation for structures; use of vegetated swales to capture and retain
15 runoff; use of green roofs, and storage and reuse of runoff. At a watershed or landscape scale,
16 LID strategies can include basin planning, watershed-wide limits on imperviousness, and
17 protection of sensitive areas like riparian zones, wetland and steep slopes. *Testimony of Holz,*
18 *Booth, Ex. PSA 050.*

19 44.

20 Although many LID techniques are not new ideas (i.e. grass roofs, rain gardens), LID as
21 a formal stormwater management concept was developed in the late 1980's. *Testimony of Booth,*

1 *Holz*. Prince George's County, Maryland, a pioneer in the area of LID in the United States,
2 began working on bioretention or rain gardens during the 1980's, and published a comprehensive
3 LID technical manual and an accompanying volume providing detailed hydrologic analysis and
4 computational procedures in 1999. *Exs. PSA 052 and 053*. Two federal agencies, the U.S.
5 Department of Defense and Department of Housing and Urban Development, adopted LID
6 Manuals in 2003 and 2004. *Exs. PSA 054 and 055*. The Puget Sound Action Team and the
7 Washington State University Pierce County Extension published The PSAT Manual, a 247 page,
8 comprehensive, technical guidance manual for the use of LID in the Puget Sound Area, in
9 January of 2005 with funding provided by the Ecology. *Ex. PSA 050*. The PSAT Manual was
10 intended to provide a menu of treatment options and direction for site design techniques, but it
11 does not attempt to identify a performance standard for any of the included LID strategies.

12 *Testimony of O'Brien.*

13 45.

14 The Environmental Protection Agency (EPA) has not required the use of LID in its
15 stormwater rules or EPA permits, but it is increasingly supporting and encouraging the use of
16 LID approaches in municipal stormwater programs on its website and through numerous
17 publications. *See for example, Ex. PSA 057(EPA National Pollutant Discharge Elimination*
18 *System (NPDES), Post-Construction Stormwater Management in New Development and*
19 *Redevelopment)(posted on EPA's website); PSA Ex. 058, (EPA National Pollutant Discharge*
20 *Elimination System (NPDES), Low Impact Development (LID) and Other Green Design*
21 *Strategies)(posted on EPA's website); PSA 056 (EPA Fact Sheet for Stormwater Phase II Final*

1 *Rule, Post-Construction Runoff Control Minimum Control Measure (Jan. 2000, rev'd 2005); Ex.*
2 *PSA 066 (EPA Low Impact Development (LID), A Literature Review (Oct. 2000); Ex. PSA 059*
3 *(EPA 833-F-04-033, Resource List for Stormwater Management Programs (May 2004); Ex.*
4 *PSA 060 (EPA National Management Measures to Control Nonpoint source Pollution for Urban*
5 *Areas (Excerpts: Cover, Table of Content, Chapters 1-4, 10); Ex. PSA 061 (Memorandum from*
6 *Benjamin Grumbles (Assistant Administrator, EPA) to EPA Regional Administrators Re: Using*
7 *Green Infrastructure to Protect Water Quality in Stormwater, CSO, Nonpoint Source and Other*
8 *Water Programs (Mar. 5, 2007); Testimony of Holz.*

9 46.

10 Ecology's 2005 Stormwater Management Manual addresses the use of LID techniques in
11 several ways, as part of the manual's Minimum Technical Requirements and Site Planning
12 (Volume I), its Hydrologic Analysis and Flow Control Design/BMPs (Volume III), and its
13 Runoff Treatment BMPs (Volume V). *Ex. ECY 4.*¹⁷ One of the most significant changes during
14 the 2005 update to the Manual included the addition of a "credit" system for projects that use
15 LID techniques. *Ex. PSA 064.*

16
17
18 ¹⁷ The Manual is not a regulation but rather a guidance document that presents a presumptive approach to meeting
19 requirements established through other means, such as permits. Washington is somewhat unique in its reliance on
20 the Stormwater Management Manual for directing how stormwater management is to be conducted. *Testimony of*
21 *Moore. Testimony of O'Brien.* The Manual represents Ecology's generalized determination of what constitutes
AKART for stormwater management, without regard to how much horizontal development should be allowed (*i.e.*,
whether a particular parcel, subdivision, or watershed should be developed or a particular project should be
undertaken). The manual is also considered by the Department of Community, Trade, and Economic Development,
the agency charged with state oversight of the implementation of the GMA, to constitute the best available science
for use by local governments planning under the GMA. *Testimony of O'Brien.*

1 47.

2 Volume I covers several key elements of developing a stormwater site plan, including
3 identifying the minimum requirements for stormwater management at all new development and
4 redevelopment projects. Minimum Requirement #5, which directs on-site stormwater
5 management for the purpose of using inexpensive practices on individual properties to reduce the
6 amount of disruption of the natural hydrological characteristics of the site, requires the use of
7 certain LID BMPs such as roof downspout control and dispersion and soil quality BMPs. This
8 minimum requirement applies to single-family home sites and larger properties. *Testimony of*
9 *O'Brien, Ex. ECY 4 (Phase I), Vol I, at 2-26; Ex. Muni 0001, Appendix I at p.10 and 19.* The
10 Phase I permit requires that permittees' local ordinances must meet Minimum Requirement #5,
11 including requiring specified LID BMPs to reduce the hydrologic disruption of developed sites.
12 *Testimony of O'Brien, Ex. Muni 0001, Condition S5.C.5 (at p. 9) and Appendix I (at p.19).*

13 48.

14 Stormwater site planning requirements, also contained in Volume I, direct that site
15 layouts minimize land disturbance and maximize on-site filtration by considering a number of
16 LID strategies and techniques such as preserving areas with natural vegetation (especially
17 forested areas) as much as possible, minimizing impervious areas, and maintaining and utilizing
18 natural drainage patterns. *Testimony of O'Brien, Ex. ECY 4 (Phase I), Vol I, at 3-2.*

19 49.

20 Volume III of the Manual focuses primarily on BMPs to address the volume and timing
21 of stormwater flows from developed sites, for the purpose of providing guidance on the

1 estimation and control of stormwater runoff quantity. Appendix III-C of this volume is
2 Ecology's guidance explaining how Low Impact Development techniques can be represented in
3 approved runoff models so that their benefits in reducing surface runoff can be estimated and
4 credited in the flow duration model. It identifies seven categories of LID techniques, including
5 permeable pavements, vegetated roofs, rainwater harvesting, reverse slope sidewalks, minimal
6 excavation foundations, and rain gardens, and lists the basic design criteria Ecology considers
7 necessary in order to justify use of the suggested runoff credit. *Testimony of O'Brien, Ex. ECY 4*
8 *(Phase I), Vol III, at Appendix III-C.*

9 50.

10 Finally, Volume V of the Manual identifies and discusses BMPs designed to treat runoff
11 to remove sediment and other pollutants at developed sites, for the purpose of providing
12 guidance on the selection, design and maintenance of permanent runoff treatment facilities. LID
13 techniques are included in both the basic and advanced treatment options available to developers,
14 and the method for determining the treatment credits for each technique is explained. Chapter 5
15 of this volume is devoted to the methods for analysis and design of on-site LID BMPs that serve
16 to both control runoff flow rates as well as provide runoff treatment and, since 2005, has directed
17 readers to use the PSAT Manual for various LID BMPs. *Testimony of O'Brien, Ex. ECY 4, Vol*
18 *V.*

19 51.

20 Ecology wrote the first draft of the current Phase I Permit in 1999. At that time, LID was
21 recognized as a stormwater management strategy, but there was not the same body of work

1 available on its use as there is today. Although much of the work and literature cited above post-
2 dated the initial draft of the current Phase I Permit, Ecology recognized that a large body of work
3 existed on LID as it finalized the Phase I permit. Despite the existence of many LID source or
4 reference materials, Ecology believed that it could not at that time define minimum LID
5 requirements, and was unable to define a regulatory performance standard to hold municipalities
6 to, should LID requirements be imposed by the permit. The agency also recognized that local
7 governments had adopted other land use and development standards that were obstacles to the
8 implementation of LID on a broader scale. Some local governments also have limited
9 experience with LID techniques and are reluctant to approve them. *Testimony of O'Brien.*

10 52.

11 Early drafts of the permit included requirements for basin or watershed planning as a LID
12 technique. Use of a basin planning approach in the permit would, among other things, require
13 municipalities to consider the effects of loss of impervious cover to water quality in larger,
14 watershed, basin, and sub-basin areas (potentially measured in many square miles). The ideal
15 area size for basin planning is two to ten acres. WRIA-scale (Water Resources Inventory Area)
16 planning efforts are too large to address the impervious surface problem. *Testimony of Wessel.*
17 Basin planning can also lead to the development of better site specific strategies, and some
18 Ecology staff advocated for its inclusion into the Permit. *Testimony of O'Brien.*

19 53.

20 Ultimately, Ecology drafted a permit that requires municipalities to identify barriers to
21 use of LID, and to take steps to also "allow" LID. Specific requirements for basin planning were

1 not included in the final permit, although the Endangered Species Act listing of various salmon
2 species, and efforts of the Puget Sound Partnership are reasons to reexamine the need for basin
3 planning as a permit requirement. *Testimony of Wessel, Moore; Ex. PSA 31.* Ecology rejected
4 basin or watershed planning as a permit requirement, in part because the agency could not
5 require a comprehensive planning effort, given that not all jurisdictions within a given watershed
6 or basin were covered by the Phase I permit. Ecology also concluded that imposing both site
7 level LID and basin planning requirements would move the agency too far into the land use
8 regulatory arena, although Ecology witnesses conceded that imposition of more detailed LID
9 requirements and a basin planning process could be harmonized with a parallel Growth
10 Management Act land use process, thereby elevating water quality as a growth management
11 planning priority. *Testimony of Moore, Wessel, O'Brien.*

12 54.

13 Ecology stated in its 2004 report to the Legislature that:

14 Compact style development, with a smaller footprint, reduced impervious surfaces,
15 natural areas within the urban core, and improved water detention can help local
16 communities meet the Growth Management Act's goals of accommodating growth while
17 protecting the environment.

18 *Ex. ECY 6 (Phase I), p. 31.* This same 2004 report to the Legislature highlighted the importance
19 of stormwater basin planning in areas which are relatively undeveloped where new development
20 is occurring. Ecology stated that in these areas:

21 site specific controls alone cannot prevent impacts and preserve aquatic resources.
Recent research should be used to identify development strategies that may protect the
resources. Scientific modeling of the basin can help predict the extent of potential

1 impacts and the effectiveness of alternative land development options to help avoid or
2 minimize those impacts.

3 *Id. at 28.* Ecology also recommended in its report to the Legislature that state and local
4 governments consider basin planning to address the known shortcomings of the stormwater
5 permits. Ecology stated that:

6 Stormwater basin planning is needed to quantify flow-related impacts and sources of
7 pollution to urban water bodies. This information is needed to target resources spent on
8 structural and non-structural controls (such as maintenance and public education) so that
9 goals for urban water bodies can be met. In many basins, this planning can be combined
10 with the planning for new development described earlier.

11 *Id. at 30.* Other types of water quality planning are taking place on a WRIA basis. The Board
12 finds that information developed by permittees regarding their use of basin planning, and its
13 possible interface with other planning efforts, would be very valuable to Ecology in its
14 development of the next phase of the Permit.

15 55.

16 The Phase I Permit includes several conditions that address LID in various ways, nearly
17 all of which are in the nature of encouraging or promoting rather than requiring LID by
18 municipalities. In contrast to other permit terms, the final permit does not require municipalities
19 to implement ordinances or other measures to use LID as a primary tool to manage stormwater
20 within their jurisdictions. *See* S5.C.5.b.i (allowing local governments to tailor certain
21 requirements applicable to new development through the use of basin plans or other similar
water quality and quantity planning efforts); S5.C.5.b.iii (requiring SWMPs to allow non-
structural preventative actions and source reduction approaches such as LID techniques);

1 S5.C.6.a (stating that permittees should consider other means to address impacts from existing
2 development “such as reduction or prevention of hydrologic changes through the use of on-site
3 (infiltration and dispersion) stormwater management BMPs and site design techniques, riparian
4 habitat acquisition, or restoration of forest cover and riparian buffers . . .”); S5.C.10.b.(3) and (4)
5 (requiring the inclusion of LID techniques in education and outreach programs); S8.F.1 and 7
6 (requiring monitoring of the effectiveness of one flow reduction strategy that is in use or planned
7 for installation in their jurisdiction); and Appendix 1 § 4.5 (imposing, as a minimum
8 requirement, on-site stormwater management where feasible, including use of roof downspout
9 controls and dispersion and soil quality BMPs or their functional equivalent).¹⁸ *Exs. Muni 0001,*
10 *p. 9, 10, 12, 24, 25, 46, 47, and Appendix 1, p. 19.*

11 56.

12 Some commentors on the draft Phase I Permit criticized the lack of more mandatory LID
13 requirements. The National Marine Fisheries Service and the U.S. Fish and Wildlife Service
14 (jointly the Services) offered comments on the Draft Phase I Permit in May, 2006. While they
15 supported many elements of the draft Permit, the Services recommended that the Permit employ
16 methods to help ensure that several LID projects are completed within the permit term and
17 strongly encouraged the use of basin planning to make better linkage with salmonid recovery
18 plans organized at the watershed level. *Ex. PSA 030.* EPA offered its comments on the draft
19 Phase I Permit in October, 2006. *Ex. PSA 067.* While EPA praised many aspects of the permit,
20 it also recommended strengthening the permit by “promot[ing] the implementation of low impact

21 ¹⁸ This same requirement is included in *The Manual. Ex. ECY 0004 (Phase I), Vol. 1, p. 2-26.*

1 development and non-structural best management practices,” and “add[ing] a basin planning
2 program requirement.” Similarly, a group of Washington Scientists sent an “open letter” to
3 Ecology on October 26, 2006, in which they criticized the draft Phase I Permit for its continued
4 focus on “end of pipe” management of stormwater, emphasizing the need to preserve existing
5 “least-disturbed” watersheds, to limit forest loss, and to halt runoff from new impervious areas in
6 the Puget Sound Basin. They recommended broad application of LID principles within the
7 context of land use planning and development regulations efforts to prevent runoff to surface
8 water. *Ex. PSA 010.*

9 57.

10 Ecology staff who developed the Phase I permit, as well as a number of stormwater
11 experts who testified before the Board, agreed that no one stormwater management technique
12 could solve the problem of polluted runoff from municipal stormwater systems. Even the
13 extensive use of site-level LID is not sufficient, on its own, to fully protect aquatic resources.
14 Rather, a combination of aggressive use of LID techniques, best conventional engineering
15 techniques to manage high flows (such as the flow duration standard), and land use actions to
16 preserve a high percentage of native land cover, are necessary to reduce pollutants in stormwater
17 to the maximum extent, and to preserve water quality. Although there is considerable dispute
18 about the attainable performance of particular LID strategies and engineering techniques, there is
19 no dispute that *in combination* these approaches offer the best available, known and tested
20 methods to address stormwater runoff. *Testimony of O'Brien, Holtz, Booth.*

1 58.

2 There are existing design criteria for many LID techniques, just as there are for
3 traditional BMPs employed to manage stormwater run-off used at the parcel or subdivision scale
4 (for example, pond size or thickness of a liner). These aspects of LID can be employed at a site
5 specific level. However, at this time there are no universal or broadly endorsed performance
6 standards for LID, at either the parcel, subdivision, or watershed scale. Nor were experts before
7 the Board willing to endorse or recommend such standards from among the many potential
8 options identified, although it was undisputed that any permit condition requiring permittees to
9 meet a new stormwater performance standard based on LID would implicate many other local
10 government regulatory schemes, and require modification to local government GMA planning
11 processes and requirements, zoning and development regulations, and building codes. *Testimony*
12 *of Holz.*

13 59.

14 A zero runoff outcome from the use of LID techniques is one such performance standard,
15 but actions to meet that standard would implicate a range of land use planning actions and
16 watershed level assessments. It is possible to create other, more specific performance standards
17 for LID, although the process would involve time and effort. Other jurisdictions are currently
18 using such standards, or have proposed standards for use. For example, jurisdictions can require
19 that LID BMPs be designed in accordance with guidelines in technical manuals, impose specific
20 minimum technical requirements for buildings or roads, require protection of a specific amount
21 of native vegetation at the site or basin level, limit the amount of effective impervious surface,

1 protect the natural hydrograph through various parameters, require maintenance of a certain
2 percentage of predevelopment evapotranspiration capacity or minimize or eliminate surface
3 runoff, or require that developers prioritize LID BMPs as the first choice before conventional
4 BMPs. The Phase I Municipal Stormwater Permit for San Diego County, which was reissued in
5 January, 2007, requires all new and redevelopment projects to implement LID BMPs where
6 feasible. The Permittees are given the responsibility of defining the applicability and feasibility
7 of LID BMPs, including the minimum standards to ensure maximum implementation. Another
8 example of an NPDES permit from another jurisdiction that incorporates a LID performance
9 criteria is the Ventura County MS4 Permit. This permit, which was in draft form at the time of
10 the hearing, requires that developers prioritize LID BMPs as the first choice before conventional
11 BMPS. *Testimony of Booth, Holz, Horner, Exs. PSA 048, p. 13-18; PSA 069, p. 49; PSA 070,*
12 *072, 080, Snohomish County Code 30.63C.*

13 60.

14 Requiring municipalities to impose parcel and subdivision-level LID best management
15 practices represents a cost effective, practical advancement in stormwater management. Use of
16 LID techniques at the parcel and subdivision level would not be feasible on every type of site, or
17 under all rainfall conditions present in Western Washington. Use of LID techniques could in
18 some instances allow pollutants to enter groundwater. LID BMPs require maintenance. All of
19 these limitations are also applicable to the more traditional end of pipe BMPs. In fact, site
20 attributes that make implementation of LID techniques difficult also typically make
21 implementation of conventional techniques difficult. In the absence of watershed or basin level

1 efforts to utilize LID, parcel and subdivision-level use of LID will be less effective in overall
2 stormwater management efforts, but still a substantial advancement. *Testimony of O'Brien,*
3 *Booth, Holz, Horner, Exs. ECY 3 (Phase I), p. 34-36, PSA 066, p. 2, 3.*

4 61.

5 In many cases, implementation of LID techniques on the ground for new or
6 redevelopment, or even retrofitting existing development, is less costly, or no more costly, than
7 conventional engineered BMPS. Structural stormwater controls, such as detention ponds, curbs,
8 gutters and pipes, require significant hardware and capital investment. LID techniques eliminate
9 or reduce the need for these structural controls by reducing the volume of water to be managed.
10 LID techniques may also require less space than these traditional methods. *Testimony of Holz,*
11 *Booth, Horner, Exs. PSA 047, p. 6-10, PSA 066, p.1, ECY 3 (Phase I), p. 35-36.*

12 62.

13 A major cost consideration in utilizing LID techniques at a site level is not the
14 engineering or construction associated with the LID techniques, but rather the costs associated
15 with navigating a system of regulation and development that was not created with LID in mind.
16 To fully incorporate LID principles into this system will require review, consideration, and in
17 some instances modification, of existing zoning and building regulations that create obstacles to
18 the use of LID. Some examples of common local government ordinances that could make it
19 difficult to utilize certain LID techniques include requirements related to road width, curbs and
20 gutters, vegetation clearing, and parking spaces. *Testimony of Holz, Horner.* The cost of
21 implementing LID across a broader land use spectrum, through basin or watershed planning is

1 more speculative, and the Board was presented with no clear evidence on costs associated with
2 broader scale implementation of LID in this manner. Although such planning is underway in
3 certain areas, a longer public and political process could be expected to accompany such an
4 effort.

5 63.

6 The cost of not expanding the application of LID strategies to manage municipal
7 stormwater is very high. The biological health of Puget Sound is declining, and a significant
8 cause of the decline is stormwater run-off. This decline carries with it a variety of
9 environmental, economic, and social costs. *Ex. PSA 087, p. 1.* The Puget Sound Water Quality
10 Plan, which is a plan mandated by the Legislature to be the state's long term strategy for
11 protecting and restoring the Puget Sound, stated as early as 2000 that local governments needed
12 to adopt ordinances that allow and encourage LID practices. *Ex. PSA 078, p. 101.* Many leading
13 scientists concluded, in a paper submitted to the Puget Sound Partnership in July of 2007, that
14 the problem of stormwater must be addressed in the land use context if the health of Puget
15 Sound, the species that inhabit it, and its various important beneficial uses to the region, are to be
16 protected and/or recovered. The group concluded that:

17 We have well documented evidence that the impairment associated with stormwater
18 runoff is primarily a **land use problem**, and that we cannot fully mitigate its effects if we
19 approach it only site-by-site. We know that the problems must be addressed at a basin or
20 landscape level-but we continue to manage land use and stormwater primarily on a site-
21 by-site, end of pipe basis. At the same time, we also know that current site-by-site
development techniques that result typically in wholesale loss of vegetation, compaction
of native soils and connected impervious surfaces, can and should be improved upon
significantly if we are to address stormwater problems.

Ex. PSA -012, p. 3 (emphasis in original).

1 64.

2 Recently, many local governments have begun incorporating LID techniques into their
3 stormwater manuals, and/or adopting LID stormwater requirements. Exs. PSA 072 (City of
4 Olympia, *Engineering Design and Development Standards, Ch. 9, Green Cove Basin*); PSA 073
5 (*Graham Community Plan, A Component of the Pierce County Comprehensive Plan, Excerpts:*
6 *pp. Cover, Table of Contents, p. 70, 87, 109, 149, 208*); PSA 074 (*Gig Harbor Peninsula*
7 *Community Plan, Excerpts: pp. cover, 29, 41, 63, 117, 210*); PSA 076 (*King County,*
8 *Washington, Surface Water Design Manual, Jan. 4, 2005, Excerpts: pp. cover, Table of*
9 *Contents, 5-1 through 5-16*); PSA 051 (*Pierce County, Stormwater Management and Site*
10 *Development Manual, Excerpts: Ch. 10, p. 10-1 to 10-82*).

11 65.

12 Examples of the approaches already being used by Phase I Permittees to encourage or
13 require the use of LID techniques include reducing charges for surface water rates with the use of
14 an approved LID stormwater and surface water runoff systems (*City of Tacoma, Ex. PSA 085, p.*
15 *4*); promoting LID during project scoping meetings with potential developers (*City of Tacoma,*
16 *Ex. PSA 085, p. 4*); adopting LID Ordinances (*Snohomish County, PSA Ex. 077, p. 8*);
17 incorporating LID Development Design concepts into existing regulations (*Snohomish County,*
18 *Ex. PSA 077, p. 9*); and providing public outreach and education about LID (*City of Tacoma, Ex.*
19 *PSA 085, p. 5, Snohomish County, Ex. PSA 077, p. 10-14, City of Seattle, Ex. PSA 079, p. 12, 13*).
20 Other, more stringent examples include requiring project proponents to use LID techniques for
21 all proposed Fully Contained Community developments in rural areas (*Snohomish County, Ex.*

1 *PSA 077, p. 9*); requiring LID for any UGA docket expansions proposals within the Little Bear
2 Creek watershed (*Snohomish County, Ex. PSA-077, p. 10*); and requiring LID to be used on a
3 large project in the Mill Creek pocket expansion (*Snohomish County, Ex. PSA 077, p. 9*).

4 66.

5 The Board finds that LID methods are at this time a known and available method to
6 address stormwater runoff at the site, parcel, and subdivision level. Numerous reference
7 documents, technical manuals, expert testimony, and Ecology's own Stormwater Management
8 Manual, discussed above, support this finding. The Board also finds that LID methods are
9 technologically and economically feasible and capable of application at the site, parcel, and
10 subdivision level at this time. Because application of these methods at the basin and watershed
11 level involves additional cost and practical considerations, we find Ecology must ready for the
12 eventual use of this known and available method of stormwater treatment for future iterations of
13 the permit, consistent with its obligation to impose increasingly stringent requirements on
14 discharges covered by NPDES permits.

15 G. Existing development

16 67.

17 The Phase I Permit addresses stormwater runoff from existing development through the
18 implementation of structural stormwater controls and source controls. Both of these are required
19 components of Permittees' SWMPs, and the Permit includes minimum requirements for each
20
21

1 which are based on EPA's stormwater rules.¹⁹ *Testimony of Wessel, Ex. Muni 0001, p. 12-15,*
2 *Ex. Muni-0002, p. 34-36.*

3 68.

4 The structural stormwater control program, also referred to as the "retrofit" component, is
5 targeted at discharges not adequately controlled by other aspects of the SWMP. S5.C.6.

6 Through this program, permittees must consider construction of stormwater control projects, as
7 well as other means to address impacts to state waters caused by MS4 discharges. The permit
8 directs that the program "shall consider the construction of projects such as: regional flow
9 control facilities; water quality treatment facilities; facilities to trap and collect contaminated
10 particulates, retrofitting of existing stormwater facilities; and rights-of-way, or other property
11 acquisition to provide additional water quality and flow control benefits." The Permit also
12 provides that permittees "should consider" other means to address impacts, including LID
13 techniques such as "reduction or prevention of hydrologic changes through the use of on-site
14 (infiltration and dispersion) stormwater management BMPs and site design techniques. . ."

15 S5.C.6.a. *Testimony of Wessel, Ex. Muni 0001, p. 12, 13.*

16 69.

17 The permit establishes minimum performance measures for the structural stormwater
18 control program, including development of the program within 1 year of the effective date of the

19 _____
20 ¹⁹ The Fact Sheet's reference to 40 C.F.R. 122.26(b)(2) appears to be a typographical error. Ecology's pre-hearing
21 brief properly cites the applicable federal regulation for these program elements as 40 C.F.R. 122.26(d)(2). A
portion of this federal rule, unrelated to municipal stormwater, was recently invalidated in *Natural Resources
Defense Council v. U.S. E.P.A.*, 526 F.3d 591 (9th Cir. 2008).

1 permit, and implementation of the program within 18 months from the effective date of the
2 permit. S5.C.6.b.i. Permittees are required to provide a list of planned individual projects that
3 are scheduled for implementation during the term of the permit. Municipalities are not required
4 to prioritize the planned projects in any manner. Permittees are required to submit a description
5 of their structural stormwater control program to Ecology along with the written documentation
6 of their SWMP, but the permit does not set a minimum level of effort for this requirement or
7 provide for Ecology review and/or approval of the structural stormwater control program.
8 S5.C.6.b.ii. *Testimony of Wessel, Dalton, Ex. Muni 0001, p. 12, 13, Ex. Muni 0002, p. 35.*

9 70.

10 The requirements for the Source Control Program for existing development are set out in
11 S5.C.7. Through this program, the permittee must “reduce” pollutants in runoff from areas that
12 discharge to MS4s, through application of operational and structural source control BMPs, and if
13 necessary treatment BMPs to pollution generating sources associated with existing land uses and
14 activities. S5.C.7.a. The program required in this section also must include inspections,
15 application and enforcement of local ordinances at applicable sites, and reduction of pollutants
16 associated with application of pesticides, herbicides and fertilizer discharging to MS4s.
17 S5.C.7.b.ii-iv. While reduction of pollutants is mandated, no objective standard is set for the
18 amount of reduction, although Ecology must review and approve the source control program.
19 S5.C.7.b.i. *Testimony of Wessel, Muni 0001, p. 13-15.* Under this section of the permit,
20 permittees must also implement a progressive enforcement policy to assure compliance with
21

1 stormwater requirements within a reasonable time period. S5.C.7.b.iv. *Testimony of Wessel, Ex.*
2 *Muni 0001, p. 13-15.*

3 H. Timing of Compliance

4 71.

5 PSA challenges the validity of several Phase I Permit provisions on the grounds that they
6 do not require implementation of the permit within three years. PSA provides several examples
7 of permit conditions that allow implementation after three years. Some of these examples
8 include S5.C.2.b.ii (requiring outfalls to be mapped no later than four years from the effective
9 date of the permit); S5.C.8.b.vi (requiring screening for illicit discharges in portion of each
10 jurisdictions to be completed within four years.); and S.5.C.9.b.ii (3) (allowing permittees up to
11 four years after the effective date of the permit to develop a schedule to inspect treatment and
12 flow control facilities). PSA also provides examples of conditions that impose duties that are
13 tied to the expiration of the permit. Some examples of these conditions include Condition
14 S6.A.3 (full development of the co-permittee and secondary permittees' SWMPs no later than
15 180 days prior to the expiration of the permit); and S6.D.1. a.ii (Secondary permittees shall label
16 all inlets 180 days prior to expiration of the permit). *Ex. Muni 0001, p. 7, 18, 20-21, 25, and 27.*

17 72.

18 Any Conclusion of Law deemed to be a Finding of Fact is hereby adopted as such.
19
20
21

1 argue that compliance with the S8 monitoring will hinder their own efforts to protect water
2 quality.

3 3.

4 The Utilities also challenge the validity of the S8 monitoring program. They contend that
5 it is deficient because it does not require receiving water or "compliance" monitoring. They
6 argue that receiving water monitoring is necessary to establish whether the permittees have
7 complied with water quality standards and whether they have treated their discharges with
8 AKART or to the maximum extent practicable.²¹

9 4.

10 WAC 173-226-090(1) establishes monitoring requirements for general waste discharge
11 permits. The Board has concluded in its past decisions that this regulation provides Ecology with
12 the discretion to impose *reasonable* monitoring requirements. WAC 173-226-090(1); *Puget*
13 *Soundkeeper Alliance v. Ecology*, PCHB Nos. 05-150, 0151, 06-034, -040 (Jan. 26, 2007) (CL
14 22). Further, since a decision pertaining to monitoring requirements in a general permit falls within
15 an area of Ecology's technical expertise, and involves complex scientific issues, the agency's
16 decision is entitled to deference. *Port of Seattle* at 593-594. The disagreement between appellants
17 and Ecology reflects different sides of a long-standing debate regarding the relative merits of
18 instream versus outfall monitoring, and the most advantageous sequencing of the two. *Ex. PI*
19 *0048*. It is clear there is no one right approach, as the type and timing of monitoring that is best

20
21

²¹ Issue F.3.

1 in any given situation depends on the particular purpose, context, and available resources, among
2 other factors.

3 5.

4 Neither the Utilities nor the Counties have cited to any law requiring the Phase I Permit
5 to require receiving water monitoring. The federal stormwater rules require only that
6 municipalities propose a monitoring program for the term of the permit, but list few specific
7 requirements. 40 C.F.R. 122.26(d)(2)(iii)(D).²² The Board concludes that Ecology's decision
8 not to require receiving water monitoring during this permit cycle is lawful and reasonable.
9 Ecology's decision to require monitoring designed to understand the pollutants discharging from
10 MS4s, and to evaluate the effectiveness of the BMP's in use, will provide the most useful data to
11 establish what constitutes maximum extent practicable reduction in pollutants in discharges from
12 MS4s for future permits. Further, as pointed out by Ecology, the counties are not prohibited
13 from conducting receiving water monitoring in addition to the S8 monitoring required under the
14 permit.²³

15 6.

16 In light of the discretion Ecology has in this area, the deference its technical decisions are
17 entitled to, and the fact that the burden of proof rests on the party challenging the permit, neither
18 the Counties nor the Utilities have presented a sufficient case to convince the Board that it should

19 ²² A portion of this federal rule, unrelated to municipal stormwater, was recently invalidated in *Natural Resources*
20 *Defense Council v. U.S. E.P.A.*, 526 F.3d 591 (9th Cir. 2008).

21 ²³ It is also possible that parts of the Pierce and Clark County programs could be used to satisfy the targeted
effectiveness component of the S8 monitoring (S8.E). *Ex. Muni 0001*, p. 45-46. The Board encourages Ecology to
work with Pierce and Clark Counties to find ways to make parts of their current monitoring programs satisfy some
of the requirements under S8.

1 reverse Ecology's decision to select the S8 monitoring program and require all permittees to
2 participate in it.

3 B. Ports (Issue E.5)

4 7.

5 The Ports contend that it is "unlawful, unreasonable, unjust, or invalid" to require them to
6 prepare SWPPPs on all port owned land not covered by another discharge permit. The Ports
7 argue that the primary permittees have to prepare SWPPPs only on areas on which industrial
8 type activities occur (maintenance areas and material and heavy equipment storage) that are not
9 covered by another discharge permit. The Ports assert that it is unreasonable to require SWPPPs
10 without consideration to how property is used, it is unreasonably burdensome to the Ports
11 because of the cost to prepare SWPPPs, and it is unnecessary because not all port-owned lands
12 have polluting generating characteristics. The evidence presented, however, does not support
13 these arguments.

14 8.

15 The evidence presented at the hearing establishes that lands owned by the Ports of Seattle
16 and Tacoma are located close to vulnerable urban waters with documented water quality and
17 sediment contamination problems. Almost all of the port-owned lands that discharge to MS4s
18 have pollutant-generating characteristics. Therefore preparation of SWPPPs for these properties
19 will have environmental benefits. The only exception is those few environmental mitigation
20 sites owned by the Port of Tacoma. Most of these environmental mitigation sites probably do
21 not discharge to the MS4s, and therefore would not require coverage under the Phase I Permit.

1 For the ones that do, however, there is no environmental benefit gained by requiring the
2 preparation of a SWPPP, and it is appropriate to exempt these sites from preparation of SWPPPs.

3 9.

4 The Board concludes that it not an unreasonable burden to require the Ports to prepare a
5 SWPPP for all port-owned lands which discharge to the MS4 and are not already covered by
6 another discharge permit. Based on the permit's inventory of types of sites with potential
7 pollutant generating sources (*Muni 0001, Appendix 8*), it was reasonable for Ecology to conclude
8 that the Ports owned most or all of these type of pollution sources, and that the Ports needed to
9 prepare plans to manage stormwater from such port-owned property. The Ports also have fewer
10 requirements under the Phase I Permits than other primary permittees. They will have fewer
11 SWPPPs to prepare than the primary permittees. For SWPPP preparation, they can use some
12 generic conditions for sites with identical uses, such as commercial buildings or parking lots.
13 This will reduce the amount of time it takes to prepare each SWPPP and the cost of preparation.
14 The ports can also work cooperatively with their tenants who share some responsibility for the
15 proper management of stormwater on port-owned properties, which will have the added
16 environmental benefit of educating site operators about stormwater BMPs.

17 10.

18 The Board concludes that Special Condition S6.E.7, which requires the Ports to prepare
19 SWPPPs on all port-owned lands is appropriate and valid. However, the permit should not
20 mandate SWPPP preparation for environmental mitigation sites owned by the Port of Tacoma, as
21

1 the Port of Tacoma has shown that such sites are unlikely to generate untreated stormwater
2 pollution.

3 C. LID (Issue F.1.a & .b)

4 11.

5 The LID issues raised in this appeal involve the question of whether the Phase I Permit fails
6 to meet the required treatment standard of reducing pollutants to the "maximum extent
7 practicable"(MEP) and applying "all known, available and reasonable methods of treatment"
8 (AKART), because the permit does not require more extensive use of LID techniques.

9 12.

10 The Board has previously ruled in this appeal (on summary judgment in the Special
11 Condition S4 proceeding) the CWA requires that NPDES permits issued for discharges from
12 MS4s must reduce pollution to the maximum extent practicable (the "MEP" standard). The
13 Board also concluded the WPCA contains a similar requirement, in that all wastewater discharge
14 permits must incorporate permit conditions requiring all known, available and reasonable
15 methods of treatment to control the discharge of toxicants and protect water quality (the
16 "AKART" standard). Order on Dispositive Motions: S.4 issued on April 2, 2008.

17 13.

18 The MEP standard in the CWA provides:

19 Permits for discharges from municipal stormsewers . . . (iii) shall require controls to
20 reduce the discharge of pollutants to the maximum extent practicable, including
21 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.

1 33 U.S.C. § 1342(p)(3)(B)(iii).

2
3 Neither Congress nor the EPA have defined the meaning of MEP in the municipal
4 stormwater context, nor do the parties cite to federal court cases interpreting the MEP standard in
5 the municipal stormwater context.²⁴ The Board, in a prior decision pertaining to the first round
6 of the municipal stormwater permits, stated:

7 The MEP standard is unique under water pollution laws and applicable only to municipal
8 stormwater discharges. MEP reflects the difficulty of addressing stormwater on a system
9 wide basis and the focus of regulating municipal stormwater discharges on prevention
and control. This approach by its nature requires extensive planning and *prioritization* to
achieve the underlying goal of meeting water quality standards.

10 *Save Lake Sammamish v. Ecology*, PCHB Nos. 95-78 & 121, Order Granting Summary
11 Judgment (Dec. 12, 1995) (emphasis added).

12 14.

13 The AKART standard originates in state law, but the Legislature has not explicitly
14 defined the term. Ecology has incorporated the state AKART standard into several of its
15 regulatory programs (e.g., the state surface and ground water quality standards, state waste
16 discharge and NPDES permit programs, sediment management standards, and domestic
17 wastewater facilities regulations), and has defined the AKART standard through rulemaking.
18 In the state's surface water quality standards, "AKART" is defined as "the most current
19 methodology that can be reasonably required for preventing, controlling, or abating the
20

21 ²⁴ The term "practicable" as used in a different section of the CWA, 33 USC § 1311(b)(1)(a), has been defined as
meaning that technology is required unless the costs are "wholly disproportionate" to pollution reduction benefits.
Rybacheck v. U.S. EPA, 904 F.2d 1276, 1289 (9th Cir. 1990).

1 pollutants associated with a discharge.” WAC 173-201A-020. The Washington Supreme Court
2 has further clarified that the “reasonableness” prong of AKART involves both technological and
3 economic feasibility. *Puget Soundkeeper Alliance v. Ecology*, 102 Wn. App. 783, 792-793, 9
4 P.3d 892, 897 (2000).

5 15.

6 In evaluating MEP and AKART for the Phase I Permit, we start with the context that this
7 is a “programmatic” permit that regulates the discharge from MS4 systems on a jurisdiction-wide
8 basis, through the municipalities’ implementation of their Stormwater Management Programs.
9 In several instances the permit requires that through these Stormwater Management Programs,
10 municipalities enact ordinances or orders, or adopt other enforceable documents, to control
11 pollution in stormwater. *See, e.g.*, Condition S5.C.1. The nature and scope of the LID
12 provisions in the Permit, and what can be required through the permit, must therefore be
13 evaluated within the broader context of the SWMP requirements and the programmatic nature of
14 this permit.

15 16.

16 The permit’s reliance on a flow control standard as the primary method to control
17 stormwater runoff from MS4s fails to reduce pollutants to the federal MEP standard, and without
18 greater reliance on LID, does not represent AKART under state law. The permit’s reliance on
19 terms that simply require “removal of obstacles” and actions to “allow” use of LID is insufficient
20 to meet these same federal and state pollution control standards. The testimony presented by
21 PSA, the Utilities, and Ecology’s technical experts leads to the indisputable conclusion that

1 application of LID techniques, at the parcel and subdivision level, is a currently known and
2 ~~existing methodology that is reasonable both technologically and economically to control~~
3 discharges entering into MS4s covered by the Phase I Permit. The great weight of testimony
4 before the Board, from various experts and Ecology witnesses, was that in order to reduce
5 pollution in urban stormwater to the maximum extent practicable, and to apply AKART, it is
6 necessary to aggressively employ LID practices *in combination with* conventional stormwater
7 management methods. Thus, we conclude that under state law, the permit must require greater
8 application of LID techniques, where feasible, in combination with the flow control standard, to
9 meet the AKART standard. The permit must also require the application of LID, where feasible,
10 and conventional engineered stormwater management techniques to remove pollutants from
11 stormwater to the maximum extent practicable in order to comply with federal law. Our
12 recognition that use of LID is to be employed where feasible recognizes that, like all stormwater
13 management tools, it too is subject to limitations in its practical application by site or other
14 constraints. See Findings of Fact 49-51. We do not change the applicable legal standard by use
15 of this term. Accordingly, the permit must be remanded for modification in light of this
16 conclusion.

17 17.

18 Although we conclude that the permit must require municipalities to employ broader use
19 of LID at the parcel and subdivision level, we stop short of concluding that the permit must, at
20 this time, require use of LID at a basin and watershed level. Based on the evidence before the
21 Board, we cannot conclude that the current iteration of the permit must require implementation

1 of LID on a basin or watershed scale in order to meet federal and state water quality standards.
2 Little evidence was presented as to the elements and cost of basin or watershed planning that
3 would be necessary to implement LID at this level. Ecology testified that the current Phase I and
4 Phase II permits result in a patchwork of regulation of municipal stormwater, and jurisdictions
5 are at greatly varying degrees of readiness to manage stormwater on basin or watershed levels.
6 The Phase II permittees themselves are at greatly varying degrees of readiness and capacity to
7 undertake LID on a basin and watershed level, and would need to work with Phase I and other
8 jurisdictions to do so. Given these several factors, the Board concludes that a permit condition
9 requiring municipalities to implement LID at a basin or watershed level is not, at this time,
10 reasonable or practicable. This is not to say that no steps can or should be taken at this time.
11 Ecology has identified the particular importance of basin planning in areas which are relatively
12 undeveloped where new development is occurring. The Board concludes that city and county
13 permittees should identify such areas where potential basin planning would assist in reducing the
14 harmful impacts of stormwater discharges upon aquatic resources. This will assist Ecology in
15 readying for the next round of permits when such a requirement may be necessary to meet the
16 state AKART standard and, under federal law, to reduce pollutants in municipal stormwater to
17 MEP. As we discuss in further conclusions, we do not find the Growth Management Act to be
18 an impediment to Ecology requiring greater use of LID than represented by the current permit,
19 including at the basin and watershed planning level. Because the CWA and state water quality
20 laws anticipate that there will be increasingly stringent requirements imposed on those that
21 discharge pollutants to the state's waters, including municipalities, efforts to further basin and

1 watershed planning efforts in order to incorporate the known and available LID techniques
2 should begin in anticipation of the next permit cycle.

3 18.

4 No party challenges Ecology's authority to require LID techniques if they are necessary
5 to meet the AKART or MEP standards. The Board affirmed this point in its summary judgment
6 order. Order on Dispositive Motions: (Phase I Municipal Stormwater Permit) (April 8, 2008).

7 The Board further stated:

8 As pointed out by PSA, it is impossible to untangle stormwater management from land
9 use. Even the commonly accepted water quality technique of requiring a stormwater
10 retention pond at a site takes up significant area in a development, potentially reducing
11 the number of buildable sites and constituting a land use restriction. The challenge, as
12 recognized by both Ecology and PSA, is to most effectively harmonize Ecology's
13 authority over site design and land use standards under the water pollution laws with
14 other state laws that are specifically aimed at addressing land use on a broader scale.

15 *Id.* While Ecology does not dispute that it has the authority to require the use of LID techniques,
16 it was constrained in the full exercise of this authority because of concerns about intruding too
17 far into local government land use planning efforts under the Growth Management Act.
18 Ecology's position is somewhat puzzling, as it has, through various requirements of its
19 Stormwater Management Manual, and the permit itself, already required a number of LID
20 techniques, and has required local government to remove obstacles to use of the same.²⁵ The

21 ²⁵ We also note that, in another context, Ecology has recently adopted rules for the implementation of the Shoreline
Management Act which outline a comprehensive process for preparing or amending shoreline master programs that
requires, among other things, local governments to incorporate the most current, accurate, and complete scientific
and technical information available that is applicable to the issues of concern; prepare a characterization of shoreline
ecological functions, including hydrologic functions; identify water quality and quantity issues relevant to master

1 Board concludes that contrary to the concerns raised by Ecology during permit development, that
2 the GMA is not a barrier to greater use of LID but rather complements the efforts of Ecology to
3 move forward with requiring the use of LID techniques under the Phase I Permit.

4 19.

5 The Legislature enacted the Growth Management Act (GMA), Ch. 36.70A RCW in 1990
6 and 1991, largely “in response to public concerns about rapid population growth and increasing
7 development pressures in the state, especially in the Puget Sound region.” *Quadrant Corp. v.*
8 *State Growth Management Hearings Bd.*, 154 Wn.2d 224, 231-232, 110 P.3d 1132, 1136 (2005)
9 (citations deleted). The GMA includes a broad statement of goals to guide local governments in
10 their development and adoption of comprehensive plans including a goal to “Protect the
11 environment and enhance the state’s high quality of life, including air and water quality. . .”
12 RCW 36.70A.020(10).

13 20.

14 The GMA mandates that local governments adopt comprehensive plans which include,
15 among other elements, a land use element addressing, “drainage, flooding, and stormwater run-
16 off in the area and nearby jurisdictions” and providing “guidance for corrective action to mitigate
17 or cleanse those discharges that pollute waters of the state, including Puget Sound or waters
18 entering Puget Sound.” RCW 36.70A.070(1); *Swinomish Indian Tribal Community v. Skagit*

19
20
21 program provisions; identify important ecological functions that have been degraded through loss of vegetation; and
identify measures to ensure that new development meets vegetation conservation objectives. WAC 173-26-201.

1 Co., 138 Wn. App. 771, 774, 158 P.3d 1179 (2007) (concluding that the GMA mandates that
2 local governments adopt comprehensive plans to protect surface and ground water resources.)

3 21.

4 The state WPCA predated the GMA, with the specific purpose of protecting the waters of
5 the state. RCW 90.48.010. The Legislature tasked Ecology with the job of implementing the
6 WPCA. RCW 90.48.030, .035. Clearly, there is an area of interface and overlap between the
7 GMA and the WPCA.

8 22.

9 The Washington Courts have stated that statutes are to be read together harmoniously
10 whenever possible. "The construction of two statutes shall be made with the assumption that the
11 Legislature does not intend to create an inconsistency." *Peninsula Neighborhood Ass'n v. Dep't*
12 *of Transportation*, 142 Wn.2d 328, 342, 12 P.3d 134 (2000). Further, as the Washington
13 Supreme Court recently stated: "We do not favor repeal by implication, and where potentially
14 conflicting acts can be harmonized, we construe each to maintain the integrity of the other".
15 *Anderson v. State, Dept. of Corrections*, 159 Wash.2d 849, 859, 154 P.3d 220, 225 (2007)(citing
16 *Misterek v. Washington Mineral Products, Inc.*, 85 Wn.2d 166, 168, 531 P.2d 805 (1975)). See
17 also *Kariah Enterprises, LLC v. Ecology*, PCHB No. 05-021, Corrected Order Granting Partial
18 Summary Judgment (Jan. 6, 2005).

19 23.

20 The Board has addressed the interface between the GMA and the WPCA in the *Kariah*
21 decision, cited above. In that case, the appellant challenged Ecology's denial of a CWA Section

1 25.

2 The Legislature has not expressed any intent, either through the GMA, SMA, or
3 amendments to the WPCA, to redirect Ecology's role in water quality protection to the local
4 governments. The Department of Community, Trade and Economic Development (CTED), the
5 agency charged with implementing and interpreting the GMA, has considered the interaction
6 between the GMA and pre-existing laws not specifically addressed in the GMA. In WAC 365-
7 195-700, CTED's GMA regulations state:

8 For local jurisdictions subject to its terms, the Growth Management Act mandates the
9 development of comprehensive plans and development regulations that meet statutory
10 goals and requirements. These plans and regulations will take their place among existing
11 laws relating to resource management, environmental protection, regulation of land use,
12 utilities and public facilities. Many of these existing laws were neither repealed nor
13 amended by the act.

14 This circumstance places responsibilities both on local growth management planners and
15 on administrators of preexisting programs to work toward producing a single harmonious
16 body of law.

17 WAC 365-195-700 (emphasis added).²⁷

18 CTED's regulations further explain that:

19 Overall, the broad sweep of policy contained in the act implies a requirement that all
20 programs at the state level accommodate the outcomes of the growth management
21 process wherever possible. State agencies are rarely concerned solely with the rote
application of fixed standards. The exercise of statutory powers, whether in permit
functions, grant funding, property acquisition or otherwise, routinely involves such
agencies in discretionary decision-making. The discretion they exercise should now take
into account the new reality of legislatively mandated local growth management

²⁷ Ecology's SMA rules recognize a similar responsibility to harmonize overlapping bodies of law and regulation, which now provide: "It is the responsibility of the local government to assure consistency between the master program and other elements of the comprehensive plan and development regulations." WAC 173-26-191(e).

1 programs.

2 WAC 365-195-765(4).

3
4 26.

5 The Phase I permittees are all cities and counties required to plan under the GMA. RCW
6 36.70A.040. Their planning must address protection of surface and ground water. RCW
7 36.70A.070(1). CTED has identified the Ecology Stormwater Management Manual as best
8 available science in regard to stormwater management under the GMA. Ecology, as a state
9 agency, must also work toward implementation of the GMA. We conclude that there is no
10 conflict between GMA and the WPCA, nor the roles of local governments and Ecology under
11 these statutes. These roles support and complement each other and can be harmonized to allow
12 water quality efforts to be considered and integrated into the growth management process
13 outlined in the GMA.

14 27.

15 The Board concludes Ecology may, within the bounds of the GMA, require use of LID as
16 a water quality management tool. The Board further concludes that the Phase I Permit must be
17 modified to require use of LID where feasible, as it is necessary to meet the MEP and AKART
18 standards of federal and state law, respectively. RCW 36.70A.070(1) already provides the
19 mandate for local governments planning under the GMA to address drainage, flooding, and
20 stormwater runoff in order to mitigate or cleanse discharges of water pollution. The Permit,
21 including the Manual, merely sets forth the methods to accomplish this requirement.

1 D. Existing Development (Issue F.2)

2 28.

3 PSA and the Utilities contend that the permit provisions addressing existing development
4 are inadequate to meet the MEP and AKART standards. Their primary complaint is that both the
5 structural and source control provisions applicable to existing development require only that
6 programs “reduce” impacts from discharges (S5.C.6) or that the permittees “reduce” pollutants in
7 runoff (S5.C.7). They contend that these sections do not set any minimum expectation for the
8 level of effort required and allow the permittees to make de minimus reductions in polluting
9 discharges, and thus constitute impermissible self regulation. *PSA v. Ecology*, PCHB Nos. 02-
10 162, -163, and -164, Order Granting Partial Summary Judgment (June 6, 2003)(CL XVI)(citing
11 *Environmental Defense Center v. Environmental Protection Agency*, at U.S. App. 497, at 57-62
12 (9th Cir., Jan. 14, 2003)).

13 29.

14 The Board agrees the structural stormwater control program, as drafted, amounts to
15 impermissible self-regulation. First, the permit fails to require a minimum level of effort for the
16 permittees in the selection and prioritization of structural stormwater projects, and provides no
17 review and approval role for Ecology. Second, the permit fails to comply with the applicable
18 EPA rule and therefore amounts to impermissible self regulation on this basis as well. 40 C.F.R.
19 122.26(d)(2)(iv) requires that “Proposed management programs shall describe priorities for
20 implementing controls.” Condition S5.C.6 merely requires the permittees to develop a program
21 within 12 months and provide Ecology a “list of planned individual projects that are scheduled

1 for implementation” during the term of the permit. S5.C.6.b.i. While initial project selection is
2 presumably subject to the MEP and AKART standard of the permit, Ecology plays no role in
3 ensuring these standards are met, even through simple review of the selected projects. The
4 permit does not contain any requirement that permittees describe their project priorities or
5 require that Ecology review the permittees’ structural stormwater control program. Ecology is
6 not expected to approve the municipalities’ prioritization of projects in relation to the pollution
7 reduction requirements of the permit. While Ecology testified that the permit “implied” there
8 needs to be a prioritization of planned structural stormwater control projects, and a schedule
9 reviewed by Ecology (*Moore testimony*), the permit does not expressly state this requirement and
10 the fact sheet explicitly states that “review and approval by Ecology is not a permit requirement.”
11 *Ex. Muni 0002, p. 35.* Thus, the structural stormwater control program is left entirely to the
12 discretion of the municipalities, not only with respect to which projects they initially select, but
13 also in the timing and manner in which they implement the selected projects. Prioritization of
14 projects is particularly important given that Conditions S5 and S6 are based upon actions taken
15 by the permittees and not outcomes, and this structural stormwater control provision is to
16 “address impacts that are not adequately controlled by the other required actions of the SWMP.”
17 Prioritization helps to ensure that the sites where the permittees choose to “act” are meaningful
18 in providing environmental protection. It can also assist to engage the public as a partner in
19 reducing pollutants in discharges and the overall volume of discharges. A community, for
20 example, could request a permittee to focus a project in an area which discharges near shellfish
21 beds. While the Board recognizes that local funding will influence the selection of planned

1 projects and that municipalities must therefore retain local control in the selection process, we
2 conclude that the permit must require permittees to describe the prioritization of their selected
3 projects in order to comply with federal rules, demonstrate compliance with the MEP and
4 AKART standards, and facilitate oversight by Ecology to ensure the legal standards of the permit
5 are applied on a programmatic level. *See Save Lake Sammamish v. Ecology*, PCHB Nos. 95-78
6 & -121, Order Granting Summary Judgment (Dec. 12, 1995).

7 30.

8 In contrast to the structural stormwater control program provisions, the source control
9 program for existing development requires a more rigorous program to reduce pollutants in
10 runoff from areas that discharge to MS4s owned or operated by the permittee, and does not
11 suffer from the same flaws as the structural stormwater control program. The permit requires
12 that Ecology must review and approve the source control program. S5.C.7.b.i. Therefore, the
13 Board concludes that the source control program as drafted meets the MEP and AKART
14 standard.

15 E. Water quality violations (Issues F.1.a., F.2.a., and F.4)

16 PSA and PSE argue, through several different issues, that the permit fails to prevent
17 discharges that violate water quality. *See* F.1.a (permit fails to require LID techniques which
18 results in discharges that violate water quality); F.2.a (permit allows discharges from existing
19 development that violate water quality); F.4 (Permit as a whole allows discharges that violate
20 water quality standards; Prohibition on violations of water quality standards contained in Special
21 Condition S4 conflicts with other provisions of the permit). The Board concludes that the

1 permit, with the amendments directed by the Board to meet AKART and MEP, and with the
2 amendments directed by the Board to the S4.F compliance process,²⁸ is adequately conditioned
3 to comply with state law.

4 F. Timelines for Compliance (Issue F.5)

5 31.

6 The CWA sets out a number of deadlines related to NPDES permits for industrial and
7 large municipal dischargers, including a deadline for EPA to establish regulations setting forth
8 permit application requirements, a deadline for filing permit applications, and a deadline for
9 EPA's approval or denial of the permits. 33 U.S.C. § 1342 (p)(4)(A). The final sentence in 33
10 U.S.C. § 1342 (p)(4)(A) states: "Any such permit shall provide for compliance as expeditiously
11 as practicable, but in no event later than 3 years after the date of issuance of such permit." PSA
12 contends that the Phase I Permit violates this provision.

13 32.

14 The Board has addressed this specific sentence before, in a case involving a challenge to
15 a renewal of the Industrial Stormwater General NPDES Permit. *PSA v. Ecology*, PCHB Nos. 02-
16 162, -163, -164, Order Granting Partial Summary Judgment (June 6, 2003). In that case,
17 involving industrial stormwater discharges, the Board concluded that the reference to
18 "compliance" in the sentence referred to compliance with the permit requirement contained in 33
19 U.S.C. § 1342 (p)(3)(A)(the provision pertaining to industrial stormwater discharges). *PSA* at
20 CL XXI. Applying that same analysis to this case, involving municipal stormwater discharges,

21 _____
²⁸ These modifications are ordered in the Board's Findings, Conclusions and Order on S4, issued on August 7, 2008.

1 the reference to "compliance" is to 33 U.S.C. § 1342 (p)(3)(B)(the provision establishing the
2 MEP standard for municipal stormwater discharges). Therefore, the question becomes whether

3 the permit allows any actions to occur later than three years after the date of issuance of the
4 permit that are necessary to reduce discharges of pollutants to the maximum extent practicable.

5 33.

6 Several of the conditions of the Phase I Permit allow actions required by the permit to
7 occur more than three years after the date of issuance of the permit. PSA and the Utilities
8 contend that this establishes that the permit violates 33 U.S.C. § 1342 (p)(4)(A). However, this
9 fact alone does not establish a violation of 33 U.S.C. § 1342 (p)(4). PSA and the Utilities, as the
10 parties with the burden of proof, must bring forth evidence establishing that earlier compliance
11 with one of the permit provisions currently allowing implementation outside of the three year
12 statutory window is necessary to meet the MEP standard. Ecology has developed a
13 programmatic permit with multiple components to be implemented throughout the permit cycle
14 which, collectively, represent MEP and AKART. To read the statute as suggested by PSA and
15 the Utilities would inappropriately limit Ecology's ability to include within the permit additional
16 conditions or requirements that may not be practicable within three years but which are
17 reasonable within a longer time frame. The Board concludes that PSA and the Utilities have
18 failed to meet their burden on this issue. The record does not contain sufficient evidence on any
19 specific permit condition to convince the Board that the permit violates 33 U.S.C. § 1342
20 (p)(4)(A).

1 34.

2 Any Finding of Fact deemed to be a Conclusion of Law is hereby adopted as such.

3 Having so found and concluded, the Board enters the following

4 ORDER

5 Having concluded that portions of the Phase I Permit are invalid, the Board remands the
6 Phase I Permit to Ecology pursuant to WAC 371-08-540, for modifications consistent with this
7 opinion.

8 1. Ecology shall modify Special Condition S6.E.7 as follows:

9 7. Source Control in existing Developed Areas

10 The SWMP shall include the development and implementation of one or more
11 Stormwater Pollution Prevention Plans (SWPPPs). A SWPPP is a documented
12 plan to identify and implement measures to prevent and control the contamination
13 of discharges of stormwater to surface or ground water. SWPPP(s) shall be
14 prepared and implemented for all Port-owned lands, **except environmental
mitigation sites owned by the Port of Tacoma**, that are not covered by either a
15 General Permit or an individual NPDES permit issued by Ecology that covers
16 stormwater discharges.

17 (modified language is in bold and underlined)

18 2. With respect to the use of LID, in addition to the specific modifications identified in

19 No. 1 above, Ecology shall also modify the permit consistent with this opinion as follows :

20 a. Modify Permit Condition S5.C.5.b to read as follows:

21 iii. The program must ((allow)) **require** non-structural preventive actions
and source reduction approaches ((such as)), **including** Low Impact
Development Techniques (LID), to minimize the creation of impervious
surfaces, and measures to minimize the disturbance of soils and vegetation
where feasible.

- 1 b. Require permittees to identify barriers to implementation of LID and, in each
2 annual report, identify actions taken to remove barriers identified.
- 3 c. Require permittees to adopt enforceable ordinances that require use of LID
4 techniques where feasible in conjunction with conventional stormwater
5 management methods.
- 6 d. Require permittees to address in their annual report to Ecology under the
7 Phase I Permit, information on the extent to which basin planning is being
8 conducted in their jurisdiction, either voluntarily, or pursuant to GMA or any
9 other requirement.
- 10 e. Require permittees to identify, prior to the next permit cycle or renewal, areas
11 for potential basin or watershed planning that can incorporate development
12 strategies as a water quality management tool to protect aquatic resources.

13 3. Ecology shall modify Special Condition S5.C.6.b.ii, related to structural Stormwater
14 control programs minimum performance measures, to require that permittees describe the
15 prioritization of their selected projects as required by federal rules, in order to facilitate oversight
16 by Ecology to ensure that the MEP and AKART standards are met on a programmatic level.

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SO ORDERED this 7th day of August, 2008.

POLLUTION CONTROL HEARINGS BOARD

Kathleen D. Mix
Kathleen D. Mix, Chair

see concurrence/dissent
William H. Lynch, Member

Andrea M. Doyle
Andrea McNamara Doyle, Member

Kym B
Kay M. Brown, Presiding
Administrative Appeals Judge

POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

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PUGET SOUNDKEEPER ALLIANCE;
PEOPLE FOR PUGET SOUND; PIERCE
COUNTY PUBLIC WORKS AND
UTILITIES DEPARTMENT; CITY OF
TACOMA; PORT OF SEATTLE;
SNOHOMISH COUNTY; CLARK
COUNTY; PACIFICORP; and PUGET
SOUND ENERGY,

Appellants,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent,

CITY OF SEATTLE; KING COUNTY;
PORT OF TACOMA; PACIFICORP;
PUGET SOUND ENERGY; STATE OF
WASHINGTON, DEPARTMENT OF
TRANSPORTATION,

Intervenors.

FINDINGS OF FACT, CONCLUSIONS OF
LAW, AND ORDER

PHASE I

PCHB NOS. 07-021, 07-026, 07-027
07-028, 07-029, 0-030,
07-037

CONCURRENCE AND DISSENT

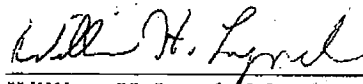
I write separately for the purpose of disagreeing with my colleagues on one portion of the decision. I would allow Pierce County to substitute its monitoring program for the monitoring required under Special Condition S8 (S8). Pierce County provided testimony that it was unable to afford both monitoring programs. Pierce County has established an extensive monitoring program that will allow the County to assess the impacts of stormwater discharges in the

1 receiving water over an extended period of time. Portions of the monitoring program include
2 continuous monitoring, so that a more accurate assessment can be made of the impact of
3 development on the physical channel conditions and aquatic organisms. Ecology has recognized
4 the importance of this type of monitoring in its 2004 report to the Legislature. Ecology's efforts
5 to collect data regarding the effectiveness of BMPs would not significantly suffer from the
6 absence of BMP effectiveness data from Pierce County. To the contrary, I believe that Pierce
7 County's monitoring program would yield information that would be quite valuable to Ecology
8 and assist in the development of future phases of the permit. The one modification I would
9 require to Pierce County's monitoring regime is for Pierce County to test for the full range of
10 chemical pollutants required of other permittees under S8.

11 For this reason, I concur with the remainder of the decision but respectfully dissent
12 regarding Pierce County's monitoring program.

13
14 Dated this 7th day of August 2008.

15
16 **POLLUTION CONTROL HEARINGS BOARD**

17
18 
19 William H. Lynch, Member

Attachment 40

State of California
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

FACT SHEET

April 24, 2009

ITEM: 12

SUBJECT: Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region, Areawide Urban Storm Water Runoff Management Program, Orange County, Order No. R8-2009-0030 (NPDES No. CAS 618030)

I. INTRODUCTION

The 1972 Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) permit program to regulate the discharge of pollutants from point sources to waters of the United States (US). Since then, considerable strides have been made in reducing conventional forms of pollution, such as from sewage treatment plants and industrial facilities, through the implementation of the NPDES program and other federal, state and local programs. The adverse effects of some of the persistent toxic pollutants (DDT, PCB, TBT) were addressed through manufacturing and use restrictions and through cleanup of contaminated sites. On the other hand, pollution from land runoff (including atmospheric deposition, urban, suburban and agricultural) was largely unabated until the 1987 CWA amendments. As a result, diffuse sources, including urban storm water runoff, now contribute a larger portion of many kinds of pollutants than the more thoroughly regulated sewage treatment plants and industrial facilities. The National Urban Runoff Program (NURP) final report to the Congress (US EPA, 1983) concluded that the goals of the CWA could not be achieved without addressing urban runoff discharges. The 1987 CWA amendments established a framework for regulating urban storm water runoff. Pursuant to these amendments, the Santa Ana Regional Water Quality Control Board (Regional Board) began regulating municipal storm water runoff in 1990.

The attached pages contain information concerning an application for renewal of Waste Discharge Requirements and a NPDES permit, which prescribes waste discharge requirements for urban storm water runoff from the cities and unincorporated areas in Orange County within the jurisdiction of the Santa Ana Regional Board. On July 21, 2006, the County of Orange and the Orange County Flood Control District (OCFCD), in cooperation with the cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Garden Grove, Huntington Beach, Irvine, Laguna Hills, Laguna Woods, La Habra, La Palma, Lake Forest, Los Alamitos, Newport Beach, Orange, Placentia, Santa Ana, Seal Beach, Stanton, Tustin, Villa Park, Westminster, and Yorba Linda (hereinafter collectively referred to as permittees or dischargers), submitted NPDES Application No. CAS 618030 (Report of Waste Discharge) for re-issuance of their areawide storm water NPDES permit. The permit application was submitted in accordance with the requirements of the previous NPDES permit (Order No. R8-2002-0010, NPDES No. CAS618030) which

expired on January 19, 2007. Additionally, the permit application follows guidance provided by staff of the State Water Resources Control Board (State Board), the Regional Water Quality Control Boards (Regional Boards), and the United States Environmental Protection Agency (US EPA).

On February 20, 2007, Order No. R8-2002-0010, NPDES No. CAS618030, was administratively extended in accordance with 40 CFR Part 122.6 and Title 23, Division 3, Chapter 9, §2235.4 of the California Code of Regulations.

Order No. R8-2009-0030 regulates discharges of urban storm water from the lower Santa Ana watershed to waters of the US, which ultimately drain into the Pacific Ocean.

II. REGULATORY BACKGROUND/CLEAN WATER ACT REQUIREMENTS

Urban runoff includes dry and wet weather flows and storm water runoff (collectively referred to as urban runoff) from urbanized areas through a storm water conveyance system. As water flows over streets, parking lots, construction sites, and industrial, commercial, residential and municipal areas, it can intercept pollutants from these areas and transport them to waters of the US. If appropriate pollution control measures are not implemented, urban runoff may contain pathogens (bacteria, protozoa, viruses), sediment, trash, fertilizers (nutrients, mostly nitrogen and phosphorus compounds), oxygen-demanding substances (decaying matter), pesticides (DDT, Chlordane, Diazinon, Chlorpyrifos), heavy metals (cadmium, chromium, copper, lead, zinc) and petroleum products (oil & grease, PAHs, petroleum hydrocarbons). If not properly managed and controlled, urbanization can change the stream hydrology and increase pollutant loading to receiving waters. As a watershed undergoes urbanization, pervious surface area decreases, runoff volume and velocity increase, riparian and wetland habitat decrease, the frequency and severity of flooding increase and pollutant loading increases. Most of these impacts are due to human activities that occur during and/or after urbanization. The pollutants and hydrologic changes can cause declines in aquatic resources, toxicity to marine organisms, and impact human health and the environment.

However, properly planned high-density development, with sufficient open space and low impact developments, can reduce urban sprawl and problems associated with sprawl. Urban in-fill development can be an element of smart growth, creating the opportunity to maintain relatively natural open space elsewhere in the area. The goal of low impact development is to produce post-construction runoff quality and quantity, to mimic that of pre-construction runoff quality and quantity.

The US EPA recognizes urban runoff as the number one source of estuarine pollution in coastal communities¹. Studies² conducted in the Southern California area and other studies have reported a definite link between storm water runoff from urban areas and pollution in

¹ US EPA, 1999, 40CFR Parts 9, 122, 123, 124, National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule, 64FR 68727.

² Bay, S., Jones, B. H. and Schiff, K., 1999, Study of the Impact of Stormwater Discharge on Santa Monica Bay. Sea Grant Program, University of Southern California; and Haile, R.W., et. al., 1996, An Epidemiological Study of Possible Adverse Health Effects of Swimming in Santa Monica Bay.

nearshore zones. A number of Orange County beaches were closed during 1999 and 2000 due to microbial contamination. One of the studies conducted to determine the source of this microbial contamination indicated that urban runoff may be one of the sources of this contamination. If not properly controlled, urban runoff could be a significant source of pollutants in waters of the US. Table 1 includes a list of pollutants, their sources, and some of the adverse environmental consequences mostly resulting from urbanization.

Table 1³. Pollutants/Impacts of Urbanization on Waters of the US (Marine Pollution)

Pollutants	Sources	Effects and Trends
Toxins (e.g., biocides, PCBs, trace metals, heavy metals)	Industrial and municipal wastewaters; runoff from farms, forests, urban areas, and landfills; erosion of contaminated soils and sediments; vessels; atmospheric deposition	Poison and cause disease and reproductive failure; fat-soluble toxins may bioconcentrate, particularly in birds and mammals, and pose human health risks. Inputs into US waters have declined, but remaining inputs and contaminated sediments in urban and industrial areas pose threats to living resources.
Pesticides (e.g., DDT, diazinon, chlorpyrifos)	Urban runoff, agricultural runoff, commercial, industrial, residential, and farm use	Legacy pesticide (DDT, Chlordane, Dieldrin, etc.) use has been banned; still persists in the environment; some of the other pesticide uses are curtailed or restricted.
Biostimulants (organic wastes, plant nutrients)	Sewage and industrial wastes; runoff from farms and urban areas; nitrogen from combustion of fossil fuels	Organic wastes overload bottom habitats and deplete oxygen; nutrient inputs stimulate algal blooms (some harmful), which reduce water clarity, cause loss of seagrass and coral reef, and alter food chains supporting fisheries. While organic waste loadings have decreased, nutrient loadings have increased.
Petroleum products (oil, grease, petroleum hydrocarbons, PAHs)	Urban runoff and atmospheric deposition from land activities; shipping and tanker operations; accidental spills; coastal and offshore oil and gas production activities; natural seepage; PAHs from internal combustion engines	Petroleum hydrocarbons can affect bottom organisms and larvae; spills affect birds, mammals and nearshore marine life. While oil pollution from ships, accidental spills, and production activities has decreased, diffuse inputs from land-based activities have not.
Radioactive isotopes	Atmospheric fallout, industrial and military activities	Few known effects on marine life; bioaccumulation may pose human health risks where contamination is heavy.

³ Adapted from "Marine Pollution in the United States" prepared for the Pew Oceans Commission, 2001.

Sediments	Erosion from farming, construction activities, forestry, mining, development; river diversions; coastal dredging and mining	Reduce water clarity and change bottom habitats; carry toxins and nutrients; clog fish gills and interfere with respiration in aquatic fauna. Sediment delivery by many rivers has decreased, but sedimentation poses problems in some areas; erosion from coastal development and sea-level rise is a future concern.

Plastics and other debris	Ships, fishing nets, containers, trash, urban runoff	Entangles marine life or is ingested; degrades beaches, wetlands and nearshore habitats. Floatables (from trash) are an aesthetic nuisance and can be a substrate for algae and insect vectors.
Thermal	Cooling water from power plants and industry, urban runoff from impervious	Kills some temperature-sensitive species; displaces others. Generally, less a risk to marine life than thought 20 years ago.
Noise	Vessel propulsion, sonar, seismic prospecting, low-frequency sound used in defense and research	May disturb marine mammals and other organisms that use sound for communication.
Pathogens (bacteria, protozoa, viruses)	Sewage, urban runoff, livestock, wildlife, discharges from boats and cruise ships	Pose health risks to swimmers and consumers of seafood. Sanitation has improved, but standards have been raised.
Alien species	Ships and ballast water, fishery stocking, aquarists	Displace native species, introduce new diseases; growing worldwide problem.

The Clean Water Act (CWA) prohibits the discharge of any pollutant to navigable waters from a point source unless an NPDES permit authorizes the discharge. Efforts to improve water quality under the NPDES program traditionally and primarily focused on reducing pollutants in discharges of industrial process wastewater and municipal sewage. The 1987 amendments to the CWA required municipal separate storm sewer systems (MS4s) and industrial facilities, including construction sites, to obtain NPDES permits for storm water runoff from their facilities. On November 16, 1990, the United States Environmental Protection Agency (EPA) promulgated the final Phase I storm water regulations. The storm water regulations are contained in 40 CFR Parts 122, 123 and 124.

The areawide NPDES permit for Orange County areas within the Santa Ana Regional Board's jurisdiction is being considered for renewal in accordance with Section 402 (p) of the CWA and all requirements applicable to an NPDES permit issued under the issuing authority's discretionary authority. The requirements included in this order are consistent with the CWA, the federal regulations governing urban storm water discharges, the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan), the California Water Code, and the State Board's Plans and Policies, including the Ocean Plan.

The Basin Plan is the basis for the Regional Board's regulatory programs. The Plan was developed and is periodically reviewed and updated in accordance with relevant federal and state law and regulations, including the Clean Water Act and the California Water Code. As required, the Basin Plan designates the beneficial uses of the waters of the region and specifies water quality objectives intended to protect those uses. (Beneficial uses and water quality objectives, together with an antidegradation policy, comprise federal "water quality standards"). The Basin Plan also specifies an implementation plan, which includes certain discharge prohibitions. In general, the Basin Plan makes no distinctions between wet and dry weather conditions in designating beneficial uses and setting water quality objectives, i.e., the beneficial uses, and correspondingly, the water quality objectives are assumed to apply year-round. (Note: In some cases, beneficial uses for certain surface waters are

designated as "I", or intermittent, in recognition of the fact that surface flows (and beneficial uses) may be present only during wet weather.) Most beneficial uses and water quality objectives were established in the 1971, 1975 and 1983 Basin Plans.

Water Code Section 13241 requires that certain factors be considered, at a minimum, when water quality objectives are established. These include economics and the need for developing housing in the Region. (The latter factor was added to the Water Code in 1987).

During the previous permit (R8-2002-0010) development process, the permittees raised an issue regarding compliance with Section 13241 of the California Water Code with respect to water quality objectives for wet weather conditions, specifically the cost of achieving compliance during wet weather conditions and the need for developing housing within the Region and its impact on urban storm water runoff. In response to this request, Regional Board staff in collaboration with the permittees in the region has organized a Storm Water Quality Standards Task Force. In the meantime, the provisions of this order will result in reasonable further progress towards the attainment of the existing water quality objectives, in accordance with the discretion in the permitting authority recognized by the United States Court of Appeals for the Ninth Circuit in *Defenders of Wildlife v Browner*, 191 F.3d 1159, 1164 (9th Cir. 1999).

III. BENEFICIAL USES

Storm water flows that are discharged to municipal storm drain systems in Orange County are tributary to various water bodies (inland surface streams, bays and tidal prisms, ocean waters, lakes and reservoirs) of the state. The beneficial uses of these water bodies include municipal and domestic supply, agricultural supply, industrial service and process supply, groundwater recharge, navigation, hydropower generation, water contact recreation, non-contact water recreation, commercial and sportfishing, warm freshwater habitat, cold freshwater habitat, preservation of biological habitats of special significance, wildlife habitat, preservation of rare, threatened or endangered species, marine habitat, shellfish harvesting, spawning, reproduction and development of aquatic habitats and estuarine habitat. The ultimate goal of this storm water management program is to protect the water quality standards of the receiving waters.

IV. PERMITTED AREA

The permitted area is delineated by the Los Angeles County-Orange County boundary line on the northwest, the San Bernardino-Orange County boundary line on the north and northeast, the Riverside County-Orange County boundary line on the east, the Santa Ana Regional Board-San Diego Regional Board boundary line on the southeast, and the Pacific Ocean on the southwest (see Attachment A of the order). The permittees serve a population of approximately 3.006⁴ million, occupying an area of approximately 789 square miles (including unincorporated areas and the limits of 34 cities, 26 of which are within the Santa Ana Regional Board's jurisdiction). The permittees have jurisdiction over, and/or maintenance responsibility for, storm water conveyance systems within Orange County. The County's systems include an estimated 400 miles of storm drain

⁴ SCAG County Population Forecasts for 2005 (this is for the entire County)
(<http://www.eltoroairport.org/issues/population.html>)

systems. A major portion of the urbanized areas of Orange County drains into water bodies within this Regional Board's jurisdiction. Storm water discharges from urbanized areas consist mainly of surface runoff from residential, commercial, and industrial developments. In addition, there are storm water discharges from agricultural land uses, including farming and animal operations. However, the CWA specifically excludes agricultural discharges from regulation under this program. Other areas of the County not addressed or which are excluded by the storm water regulations and areas not under the jurisdiction of the permittees are excluded from the area requested for coverage under this permit. These excluded areas and activities include:

1. Federal lands and state properties, including, but not limited to, military bases, national forests, hospitals, schools, colleges, universities, and highways;
2. Native American tribal lands; and
3. Utilities and special district properties.

Discharges from the permitted area drain into the Pacific Ocean. The watersheds regulated under this order generally referred to as the San Diego Creek/Newport Bay watershed and the Lower Santa Ana River Basin.

V. WATERSHED MANAGEMENT/LOWER SANTA ANA RIVER BASIN

To manage the water resources of the Region efficiently, it is critical to have a holistic approach. The entire storm drain system in Orange County is not controlled by a single entity; the County of Orange, the OCFCD, several cities, Caltrans, US Army Corps of Engineers and a number of other entities own, operate and/or manage the storm drain systems. In addition to the cities, the County and the OCFCD, there are a number of other significant contributors of storm water runoff to these storm drain systems. These include: large institutions such as the State University facilities, schools, hospitals, etc.; federal facilities such as Department of Defense facilities; State agencies such as Caltrans; water and wastewater management agencies such as Orange County Water District, Metropolitan Water District etc.; the National Forest Service; state parks; and entertainment centers such as Disneyland. The quality and quantity of storm water runoff into and out of Orange County also depends upon runoff from San Bernardino and Riverside County areas that are tributary to Orange County. Some of the runoff from Orange County enters the San Gabriel River or systems controlled by other entities, such as the Los Angeles County Flood Control District, which are under the Los Angeles Regional Board's jurisdiction.

Some of these facilities, such as Disneyland and Caltrans, are already under individual permits for storm water runoff. The Los Angeles and San Diego Regional Boards have also issued areawide storm water permits for areas within their jurisdiction.

Cooperation and coordination among all the stakeholders is essential for efficient and economical management of the watershed. It is also critical to manage nonpoint sources at a level consistent with the management of urban storm water runoff in a watershed, in order to prevent or remedy water quality impairment. Regional Board staff will facilitate coordination of monitoring and management programs among the various stakeholders, where necessary.

An integrated watershed management approach is consistent with the Strategic Plan (2008-2012) for the State and Regional Boards. A watershed wide approach is also necessary for implementation of the load and waste load allocations developed under the TMDL process (see Section B, below). The MS4 permittees and all the affected entities should be encouraged to participate in regional or watershed solutions instead of project-specific and fragmented solutions.

The pollutants in urban runoff originate from a multitude of sources and effective control of these pollutants requires a cooperative effort of all the stakeholders and many regulatory agencies. Every stage of urbanization should be considered in developing appropriate urban runoff pollution control methodologies. The program's success depends upon consideration of pollution control techniques during planning, construction and post-construction operations. At each stage, appropriate pollution prevention measures, proper site design considerations, source control measures and, if necessary, treatment techniques should be considered.

1. SUB-WATERSHEDS AND MAJOR CHALLENGES

The Lower Santa Ana River Watershed can be subdivided into five tributary watersheds:

- a. The San Gabriel River Drainage Area: Carbon Canyon Creek and Coyote Creek drain into the San Gabriel River. Only a portion of the San Gabriel River is within the Santa Ana Regional Board's jurisdiction. The River empties into the Pacific Ocean at the boundary between two Regional Boards (Regions 4 and 8). Region 4 regulates most of the discharges to the San Gabriel River.

The Los Angeles Regional Board (Region 4) listed the San Gabriel River as an impaired waterbody on the CWA Section 303(d) list of impaired waters. It is listed for ammonia, toxicity, algae, eutrophication, pH, odors, low dissolved oxygen, trash, lead, arsenic, copper, silver, mercury (tissue), coliform, DDT, PCBs, chlordane, and abnormal fish histology. A trash TMDL for the East Fork of the River was adopted by the Regional Board (Region 4) and approved by the US EPA. On July 13, 2006, the Los Angeles Regional Board adopted TMDLs for metals in the San Gabriel River watershed. However, because of the state's inability to meet the March 2007 deadline for an approved TMDL prescribed in a consent decree (Heal the Bay Inc., et al. v. Browner C98-4825 SBA), on March 26, 2007, the EPA promulgated TMDLs for metals and selenium for the San Gabriel River. The upper portions of Coyote Creek flow through Orange County to join the San Gabriel River above the tidal prism. Other unnamed tributaries located in northwestern Orange County also discharge into the San Gabriel River estuary. The EPA promulgated TMDLs include wet weather wasteload allocations for Coyote Creek for copper, lead and zinc and dry weather wasteload allocations for copper for Coyote Creek. The permittees are expected to implement programs and policies consistent with the metals and selenium TMDLs for the San Gabriel River

watershed. This includes constituent-specific source control programs or other equally effective programs to control the discharge of copper, lead and zinc into Coyote Creek and other tributaries in Orange County that discharge into the San Gabriel River.

b. The Huntington Harbour and Bolsa Bay Drainage Area: This includes Anaheim Bay, Huntington Harbour, Bolsa Bay, and Bolsa Chica Ecological Reserve. A number of flood control channels discharge into this area, including Anaheim-Barber, East Garden Grove-Wintersberg, and Bolsa Chica Channel. The area historically had a number of oil production facilities and an oil-well drilling mud disposal area. There are still some production wells in the area. Certain areas of the Bolsa Chica wetlands have been impacted by the oil production and related activities in the area. The drilling mud disposal area has been cleaned up, and through a collaborative effort of a number of state, federal, and local agencies and other entities the Bolsa Chica wetlands have been restored.

Anaheim Bay and Huntington Harbour are listed as impaired waterbodies (see Table 2), and TMDLs will be developed to address the pollutants causing the impairment.

c. The Santa Ana River Drainage Area: This includes Santa Ana River Reaches 1 and 2, Santiago Creek Reaches 1, 2, 3 and 4, Silverado Creek, Black Star Creek, Talbert Channel, Talbert Marsh and Greenville-Banning Channel. The major problem for the area is microbial contamination of the coastal zone. The initial studies conducted by the Orange County Sanitation District determined that their facilities were probably not the cause of the microbial problems in the nearshore zone. Subsequently, the Executive Officer issued a directive to the County of Orange and the cities of Santa Ana, Costa Mesa, Fountain Valley and Huntington Beach (urban storm water dischargers to this tributary area) under Section 13267 of the Water Code. This directive required the dischargers to provide a plan to identify, characterize and control sources that contributed to the microbial problems in the Huntington Beach area. Several studies were conducted to trace the source(s) of the microbial contamination. These studies could not conclusively determine the sources of microbial contamination in the Huntington Beach area. However, urban runoff was identified as one of the sources. The permittees have diverted most of the dry-weather flows to the sanitary sewer system and significant improvements have been noted in the beach water quality.

d. The Newport Bay Drainage Area: Tributaries include Bonita Creek, Serrano Creek, Peters Canyon Wash, Hicks Canyon Wash, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash, San Diego Creek Reaches 1 and 2, and San Joaquin Freshwater Marsh.

The Newport Bay watershed has a number of impaired waterbodies listed under Section 303(d) of the CWA (see Section 2, below for

details). The impairments are mostly due to nutrients, sediment, pesticides, pathogens and metals. To date, TMDLs have been developed for nutrients, sediment, and fecal coliform bacteria and some of the pesticides (diazinon and chlorpyrifos). These TMDLs are being implemented. The current and future (year 2012) targets for the nutrient TMDLs are already being met. However, Board staff is currently reevaluating the nutrient TMDLs in light of evidence that there remains impairment of these waters due to eutrophication. In addition, toxics TMDLs were promulgated by USEPA on June 14, 2002, including TMDLs for metals and selenium, and a TMDL specific to the Rhine Channel located in Lower Newport Bay. The Regional Board is in the process of developing TMDL implementation plans for these TMDLs.

The Irvine Ranch Water District (IRWD), which provides sewage collection and treatment services for most areas in this watershed, has been also accepting dry weather flows from some of the storm sewer systems. The IRWD constructed a number of water quality treatment wetlands for treating urban storm water runoff. These treatment wetlands are strategically located to capture and treat flows from different portions of the watershed. The IRWD also sponsored legislation that authorizes the District to collect storm water fees for maintenance of these treatment wetlands. These treatment wetlands are designed to remove sediment and nutrients from urban runoff but may be less efficient in removing pathogens and toxics (metals, pesticides, etc.). It is anticipated that a combination of site design, source control and other best management practices and these treatment wetlands will help to control the discharge of pollutants in urban runoff.

e Irvine Coast and Newport Coast Areas of Special Biological Significance (ASBSs) The Ocean Plan has 35 designated areas of special biological significance throughout the State; two of these ASBSs are within the Santa Ana Region, Irvine Coast Areas of Special Biological Significance, Newport Coast Areas of Special Biological Significance. The ASBSs require protection of species or biological communities to the extent that alteration of natural water quality is undesirable. The Crystal Cove area, which is within the Irvine Coast ASBS, is currently experiencing increased urban runoff from new developments in the area. The Ocean Plan contains a prohibition on discharges of wastes to ASBS. The State Board has developed conditions for special protection of ASBSs. All waste discharges to the ASBS are governed by the prohibition in the Ocean Plan are subject to the special protections prescribed by the State Board.

2. CWA SECTION 303(d) LIST AND TMDLS:

The 2006 water quality assessment conducted by the Regional Board identified a number of waterbodies within the Region as impaired waterbodies, under Section 303(d) of the CWA. These are waterbodies where the designated beneficial uses are not met and/or the water quality objectives are being violated. These waterbodies were placed on the CWA Section 303(d) list of impaired waters. The impaired waterbodies in Orange County within the Santa Ana Regional Board's jurisdiction are listed in Table 2.

Federal regulations require that a total maximum daily load (TMDL) be established for each 303(d) listed waterbody for each of the pollutants causing impairment. The TMDL is the total amount of the problem pollutant that can be discharged while water quality standards in the receiving water are attained, i.e., water quality objectives are met and the beneficial uses are protected. It is the sum of the individual wasteload allocations (WLA) for point source inputs, load allocations (LA) for non-point source inputs and natural background, with a margin of safety. The TMDLs are the basis for limitations established in waste discharge requirements. TMDLs have been developed for sediment and nutrients for San Diego Creek and Newport Bay and for fecal coliform bacteria in Newport Bay. The stakeholders in this watershed are collaborating in the development and implementation of the TMDLs. The Regional Board's Executive Officer has issued requirements for the submittal and implementation by the responsible parties of plans and schedules to address the TMDL requirements.

Table 2. Clean Water Act Section 303(d) Listed Waterbodies

Water Body	Hydro Unit	Pollutant Stressor	Source	Priority	Size Affected	Unit	TMDL End Date
Anaheim Bay	80111000	Nickel ⁵	Source Unknown	Medium	402	Acres	2019
		Dieldrin ⁶	Source Unknown	Medium	402	Acres	2019
		PCBs ⁷	Source Unknown	Medium	402	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	402	Acres	2019
Balboa Beach	80114000	Pesticides ⁸	Source Unknown	Medium	1.8	Miles	2019
		PCBs	Source Unknown	Medium	1.8	Miles	2019
Bolsa Chica State Beach	80111000	Metals (copper and nickel)	Source Unknown	Medium	2.6	Miles	2019
Buck Gully Creek	80111000	Pathogens	Source Unknown	Medium	0.3	Miles	2019

⁵ EPA listing

⁶ EPA listing

⁷ EPA listing

⁸ DDT and Dieldrin

Huntington Beach State Park	80111000	Pathogens (Enterococcus and indicator bacteria)	Source Unknown	Medium	5.8	Miles	2019
		PCBs	Source Unknown	Medium	5.8	Miles	2019
Huntington Harbour	80111000	Metals (copper, lead, nickel)	Source Unknown	Medium	221	Acres	2019
		Pathogens	Urban Runoff/Storm Sewers	Medium	221	Acres	2019
		Chlordane	Source Unknown	Medium	221	Acres	2019
		PCBs	Source Unknown	Medium	221	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	221	Acres	2019
Los Trancos Creek (Crystal Cove Creek)	80111000	Pathogens (fecal coliform, total coliform)	Source Unknown	Medium	0.19	Miles	2019
Newport Bay, Lower	80111000	Nutrients	Source Unknown	High	767	Acres	1999
		Chlordane	Source Unknown	Medium	767	Acres	2019
		DDT	Source Unknown	Medium	767	Acres	2019
		Copper	Source Unknown	High	767	Acres	2007
		PCBs	Source Unknown	Medium	767	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	767	Acres	2019

Newport Bay, Upper Ecological Reserve	80111000	Nutrients	Source Unknown	High	653	Acres	1999
		Copper	Source Unknown	High	653	Acres	2007
		Chlordane	Source Unknown	Medium	653	Acres	2019
		Metals	Urban Runoff Storm Sewers	Medium	653	Acres	2019
		DDT	Source Unknown	Medium	653	Acres	2019
		PCBs	Source Unknown	Medium	653	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	653	Acres	2019
Peters Canyon Channel	80111000	Pesticides (DDT, Toxaphene)	Source Unknown	Medium	3	Miles	2019
Rhine Channel	80114000	Metals (copper, lead, mercury, zinc)	Source Unknown	Medium	20	Acres	2019
		PCBs	Source Unknown	Medium	20	Acres	2019
		Sediment Toxicity	Source Unknown	Medium	20	Acres	2019

San Diego Creek, Reach 1	80111000	Nutrients	Source Unknown	High	7.8	Miles	1999
		Selenium	Source Unknown	High	7.8	Miles	2007
		Fecal Coliform	Urban Runoff/Storm Sewers Other Urban Runoff	Medium	7.8	Miles	2019
		Toxaphene	Source Unknown	Medium	7.8	Miles	2019
San Diego Creek Reach 2	80111000	Nutrients	Agriculture, Urban Runoff/Storm Sewer, Groundwater Loadings	High	6.3	Miles	1999
		Metals	Urban Runoff/Storm Sewers	High	6.3	Miles	2007
Santiago Creek R4	80112000	Salinity/ TDS/ Chlorides	Source Unknown	Low	9.8	Miles	2019
Seal Beach	80111000	Enterococcus	Source Unknown	Low	0.53	Miles	2019
		PCBs	Source Unknown	Low	0.53	Miles	2019
Silverado Creek	80112000	Pathogens	Unknown Nonpoint Source	Low	11	Miles	2019
		Salinity/ TDS/ Chlorides	Unknown Nonpoint Source	Low	11	Miles	2019

The proposed order includes numeric effluent limits based on the wasteload/load allocations developed and approved by the Regional Board, State Board, Office of Administrative Law and the EPA.

VI. FIRST, SECOND AND THIRD TERM PERMITS: STORM WATER POLLUTION CONTROL PROGRAMS/POLICIES

Prior to EPA's promulgation of the final storm water regulations, the counties of Orange, Riverside and San Bernardino applied for areawide NPDES permits for storm water runoff. On July 13, 1990, the Regional Board issued Order No. 90-71 to the permittees (first term permit). On March 8, 1996, the Board adopted Order No. 96-31 (second term permit). On January 18, 2002, the Board adopted Order No. R8-2002-0010 (third term permit). These permits included the following requirements as outlined in the storm water regulations:

- a. Prohibited non-storm water discharges to the MS4s, with certain exceptions.
- b. Required the municipalities to develop and implement a drainage area management plan (DAMP) to reduce pollutants in urban storm water runoff to the maximum extent practicable (MEP⁹).
- c. Required the discharges from the MS4s to meet water quality standards in receiving waters.
- d. Required the municipalities to identify and eliminate illicit connections and illicit discharges to the MS4s.
- e. Required the municipalities to establish and maintain legal authority to enforce storm water regulations.
- f. Required monitoring of dry weather flows, storm flows, and receiving water quality, and required program assessment.
- g. Required the permittees to identify and inspect construction sites and industrial and commercial facilities.
- h. Required the permittees to develop and implement a Water Quality Management Plan to address post-development runoff.

The following programs and policies have been implemented or are being implemented by the permittees. During the first term permit, the permittees developed a Drainage Area Management Plan (1993 DAMP) which was approved by the Executive Officer of the Regional Board on April 29, 1994. The 1993 DAMP included a number of best management practices (BMPs) and a very extensive public education program. The 1993 DAMP was updated a number of times and a draft 2007 version of the DAMP was submitted with the permit renewal application. The monitoring program for the first term permit included 89 monitoring stations within streams and flood control channels and 21 stations within the bays, estuaries and the ocean. The findings and conclusions from these monitoring stations and monitoring programs of other municipal permittees (Riverside and San Bernardino Counties and others) were used to identify problem areas and to re-evaluate the monitoring program and the effectiveness of the BMPs. The direction of these program elements were depended upon the results of the ongoing studies and a holistic approach to watershed management.

Other elements of the storm water management program included identification and elimination of illicit discharges and illicit connections and establishment of adequate legal authority to control pollutants in storm water discharges. The permittees have completed a survey of their storm drain systems to identify illicit discharges/illicit connections and have adopted appropriate ordinances to establish legal authority. Some of the more specific achievements during the previous term permits are as follows:

1. *Interagency Agreements and Coordination*: Established a program management structure through an Interagency Implementation Agreement. Participated in regional monitoring programs and focused special studies/research programs.

⁹ Maximum Extent Practicable (MEP) means to the maximum extent feasible, taking into account equitable considerations of synergistic, additive, and competing factors, including but not limited to, gravity of the problem, technical feasibility, fiscal feasibility, public health risks, societal concerns, and social benefits.

Worked with the County Sanitation Districts, Health Care Agency, Integrated Waste Management Agency, and the Water Districts to provide a consistent urban storm water pollution control message to the public. Worked with Caltrans, other transportation agencies, the Storm Water Quality Task-Force, and others to further study and understand urban runoff problems and control measures. Supported regional studies to improve storm water management programs and monitoring programs through the Southern California Water Research Project.

- i. Ordinances, Plans and Policies: Adopted a Model Water Quality Ordinance and Enforcement Consistency Guide; prepared a Water Pollution Enforcement Implementation Plan, Public Agency Activity BMP guideline, a Public Pesticide and Fertilizer Use Guideline, Criteria for MS4 Inspections, and a Water Quality Monitoring Plan, Model Water Quality Management Plan; and established a Technical Advisory Committee for overall program development and implementation.
- j. Program Review: A number of existing programs were reviewed to determine their effectiveness in combating urban pollution and to recommend alternatives and or improvements, including litter control measures, street sweeping frequencies and methods, public agency activities and facilities, illicit discharges and illicit connections to the MS4 systems, and existing monitoring programs.
- k. Public Education: A number of steps were taken to educate the public, businesses, industries, and commercial establishments regarding their role in urban runoff pollution controls. The appropriate industrial dischargers were notified of the storm water regulatory requirements. For a number of unregulated activities, BMP guidance (Fact Sheet) was developed (mobile detailing, automotive service centers, restaurants, pool maintenance). Finally, a countywide hotline was established for reporting any suspected water quality problems. The addition of the Residential Program to the fourth term permit includes requirements for permittees to identify residential areas and activities therein that are potential sources of pollutants and to develop Fact Sheets/BMPs for each and encourage residents to implement the pollution prevention measures.
- l. Public Agency Training: Training was provided to public agency employees on how to implement New Development Guidelines and Public Works BMPs, how to conduct investigations of reported water quality problems and how to conduct inspections of industrial facilities, construction sites and public work projects. The municipal planners were trained to recognize water quality related problems in proposed developments. The fourth term permit includes additional training program requirements for storm water program managers and inspection staff. This was added following information collected during Regional Board staff audits of permittee's storm water management programs, which found that many of the permittee's storm water staff were inadequately trained to properly implement the required program elements contained within the third term permit.

- m. *Related Activities:* Flood control channels were stabilized, sediment basins were constructed, and debris booms were installed; illicit connections were eliminated and illicit connections to the MS4s were documented, eradicated or permitted. During the third term permit, litter/trash control ordinances were reviewed and revised, and trash characterization programs were encouraged. Within the fourth term permit, a trash control element has been added as a requirement.

VII. PRIOR TERM PERMITS - WATER QUALITY IMPROVEMENTS

An accurate and quantifiable measurement of the impact of the above stated storm water management programs is difficult for a variety of reasons, such as the variability in chemical water quality data, the incremental nature of BMP implementation, lack of baseline monitoring data, and the existence of some of the programs and policies prior to initiation of formal storm water management programs. There are generally two accepted methodologies for assessing water quality improvements: (1) conventional monitoring such as chemical-specific water quality monitoring; and (2) non-conventional monitoring such as monitoring of the amount of household hazardous waste collected and disposed off at appropriate disposal sites, amount of used oil collected, debris removed by the debris boom, etc.

The water quality monitoring data collected during prior permit terms did not indicate any discernible trends or significant changes. However, the most recent monitoring data indicate that there are reductions in the mass loading rates for some of the metals like copper and zinc and improvements in beach water quality after diversion of dry weather flows to the sanitary sewers. The non-conventional monitoring data also indicate that other programs and policies have been very effective in keeping a significant quantity of wastes from being discharged into waters of the US.

During the second and third term permits, there was an increased focus on watershed management initiatives and coordination among the municipal permittees in Orange, Riverside and San Bernardino Counties. These efforts resulted in a number of regional monitoring programs and other coordinated program and policy developments.

It is anticipated that with continued implementation of the revised DAMP and other requirements specified in this order, including low impact developments, the goals and objectives of the storm water regulations will be met, including protection of water quality standards for all receiving waters.

VIII. FUTURE DIRECTION/2007 DRAFT DAMP

The NPDES permit renewal application included a revised draft of the DAMP (2007 DAMP) that includes programs and policies the permittees are proposing to implement during the fourth term permit. The 2007 draft DAMP is the principal guidance document for urban storm water management programs in Orange County and includes the following major components:

1. Continues to provide a framework for the program management activities and plan development.
 - n. Continues to provide the legal authority to control discharges to the MS4s.
 - ~~o. Improves current BMPs to achieve further reduction in pollutant loading to the MS4s.~~
 - p. Continues to include programs and policies for public education processes and to seek public support for urban storm water pollution prevention BMPs.
 - q. Increases requirements for controls on new developments and significant redevelopments.
 - r. Continues to ensure that construction sites implement appropriate pollution control measures during construction and effective post-construction water quality management plan (WQMP) implementation.
 - s. Continues to ensure that industrial sites are adequately identified, categorized and inspected for compliance with storm water regulations:
 - t. Continues to include programs and policies to eliminate illicit discharges and illicit connections to the MS4s.
 - u. Continues to include monitoring of urban runoff.
 - v. Includes provisions for any special focus studies and/or control measures.

A combination of these programs and policies and the requirements specified in this order should ensure control of pollutants in storm water runoff from facilities owned and/or controlled by the permittees.

IX. PERMIT REQUIREMENTS

The legislative history of storm water statutes (1987 CWA Amendments), US EPA regulations (40CFR Parts 122, 123, and 124), and clarifications issued by the State Water Resources Control Board (State Board Orders No. WQ 91-03 and WQ 92-04) indicate that a non-traditional NPDES permitting strategy was anticipated for regulating urban storm water runoff. Due to the economic and technical infeasibility of full-scale end-of-pipe treatments and the complexity of urban storm water runoff quality and quantity, MS4 permits generally include narrative requirements for the implementation of BMPs in place of numeric effluent limits.

The requirements included in this order are meant to specify those management practices, control techniques and system design and engineering methods that will result in maximum extent practicable protection of the beneficial uses of the receiving waters. The State Board (Orders No. WQ 98-01 and WQ 99-05) concluded that MS4s must meet the technology-based maximum extent practicable (MEP) standard and water quality standards (water quality objectives and beneficial uses). The US Court of Appeals for the Ninth Circuit

subsequently held that strict compliance with water quality standards in MS4 permits is at the discretion of the local permitting authority. Any requirements included in the order that are more stringent than the federal storm water regulations are in accordance with the CWA Section 402(p)(3)(iii), and the California Water Code Section 13377 and are consistent with the Regional Board's interpretation of the requisite MEP standard.

The Report of Waste Discharge (ROWD) included a discussion of the current status of Orange County's urban storm water management program and the proposed programs and policies for the next five years (fourth term permit). The proposed order incorporates these documents and the performance commitments made in the ROWD.

This order recognizes the significant progress made by the permittees during the first, second and third term permits in implementing the storm water regulations. The permit also recognizes regional and innovative solutions to such a complex problem. For these reasons, the order is somewhat less prescriptive when compared to some of the MS4 NPDES permits for urban runoff issued by other Regional Boards. However, in many other respects, it incorporates an integrated watershed approach in solving urban runoff related water quality and quantity issues. The proposed permit also includes numeric effluent limits based on wasteload/load allocations. With these requirements, it should achieve the same or better water quality benefits because of the programs and policies already being implemented or proposed for implementation, including regional and watershed wide solutions.

The major requirements include: (1) Discharge prohibitions; (2) Receiving water limitations; (3) Prohibition on illicit connections and illicit discharges; (4) Public and business education; (5) Adequate legal authority; (6) Programs and policies for municipal facilities and activities; (7) Inspection Activities by the municipalities; (8) New development/re-development requirements including a requirement to fully implement low impact development principles and to minimize any hydrologic conditions of concern; (9) Waste load allocations for nutrients, sediment, and fecal coliform bacteria; metals, and pesticides, including numeric effluent limits; and (10) Monitoring and reporting requirements.

These programs and policies are intended to improve urban storm water quality and protect the beneficial uses of receiving waters of the region.

1. DISCHARGE PROHIBITIONS

In accordance with CWA Section 402(p)(3)(B)(ii), this order prohibits the discharge of non-storm water to the MS4s, with a few exceptions. The specified exceptions are consistent with 40 CFR 122.26(d)(2)(iv)(B)(1). If the permittees or the Executive Officer determines that any of the exempted non-storm water discharges contain pollutants, a separate NPDES permit or coverage under the Regional Board's De Minimis permit will be required.

2. RECEIVING WATER LIMITATIONS

Receiving water limitations are included to ensure that discharges from MS4 systems do not cause or contribute to violations of applicable water quality standards in receiving waters. The compliance strategy for receiving water limitations is consistent with the US EPA and State Board guidance and recognizes the complexity of storm water management.

This order requires the permittees to meet water quality standards in receiving waters in accordance with US EPA requirements as specified in State Board Order No. WQ 99-05. If water quality standards are not met by implementation of current BMPs, the permittees are required to re-evaluate the programs and policies and to propose additional BMPs. Compliance determination will be based on this iterative BMP implementation/compliance evaluation process.

3. ILLICIT DISCHARGES AND ILLICIT CONNECTIONS TO MS4s

The permittees have completed their survey of the MS4 systems and eliminated or permitted all identified illicit connections. The permittees have also established a program to address illicit discharges and a mechanism to respond to spills and leaks and other incidents of discharges to the MS4s. The permittees are required to continue these programs to ensure that the discharges from MS4s do not become a source of pollutants in receiving waters.

4. PUBLIC AND BUSINESS EDUCATION OUTREACH PROGRAM

Public outreach is an important element of the overall urban pollution prevention program. The permittees have committed to implement a strategic and comprehensive public education program to maintain the integrity of the receiving waters and their ability to sustain beneficial uses. The principal permittee has taken the lead role in the outreach program and has targeted various groups including businesses, industry, development, utilities, environmental groups, institutions, homeowners, school children, and the general public. The proposed order includes additional requirements to address runoff from residential developments. The permittees have developed a number of educational materials, established a storm water pollution prevention hotline, started an advertising and educational campaign and distribute public education materials at a number of public events. The permittees are required to continue these efforts and to expand public participation and education programs.

5. LEGAL AUTHORITY

During the first two permit cycles, each permittee adopted a number of ordinances, municipal codes, and other regulations to establish legal authority to control discharges to the MS4s and to enforce these regulations as specified in 40 CFR 122.26(d)(2)(I)(B, C, E, and F). The permittees are required to enforce these ordinances and to take enforcement actions against violators (40 CFR 122.26(d)(2)(iv)(A-D)). The enforcement activities undertaken by a majority of the permittees have consisted primarily of Notices of Violation, which act to educate the public on the environmental consequences of illicit discharges. Several coastline municipalities have regularly issue Citations. In the case of the County, additional action has sometimes included recovery of investigation and clean-up costs from a responsible party. In the event of egregious or repeated violations, the option exists for a referral to the County District Attorney for possible prosecution. In order to eliminate unauthorized, non-storm water discharges, reduce the amount of pollutants commingling with storm water runoff and thereby protect water quality, an additional level of enforcement is required between Notices of Violation and District Attorney referrals. The third term permit required the permittees to establish the authority and resources to administer either civil or criminal fines and/or penalties for violations of their local water quality ordinances (and the Federal Clean Water

Act). The permittees now have this authority for civil or criminal penalties. Within the fourth term permit, permittees are required to exercise this authority by developing an enforcement program to be administered within the industrial, commercial and construction elements of their storm water management programs. The enforcement program has been required to be included as an update to each permittee's respective Local Implementation Plan.

6. PUBLIC FACILITIES AND ACTIVITIES

Education of municipal planning, inspection, and maintenance staff is critical to ensure that municipal facilities and activities do not cause or contribute to an exceedance of receiving water quality standards. The second and third term permits required the permittees to prepare an Environmental Performance Report to address public agency facilities and activities that are not regulated under the State's General Industrial Activities Storm Water Permit. It also required the permittees to report on an annual basis the actions taken to eliminate the discharge of pollutants from public agency activities and facilities. The permittees are required to inspect and maintain drainage facilities free of waste materials to control pollutants in storm water runoff flowing through these systems. The proposed order requires the permittees to continue to re-evaluate their facilities and activities on an annual basis to see if additional BMPs are needed to ensure water quality protection.

7. MUNICIPAL INSPECTION PROGRAM

The third term permit included requirements for inspection of construction, industrial, and commercial facilities within the permittees' jurisdiction in order to control the loading of pollutants entering the MS4 system. The permittees were required to inventory construction, industrial and commercial facilities; prioritize those facilities with respect to their potential for discharge of pollutants in runoff and their proximity to sensitive receiving waters; and perform regular inspections to insure compliance with local ordinances. Within the fourth term permit, permittees are also to develop a pilot program targeted at mobile businesses (mobile detailers, pool & carpet cleaning, etc.) that have been identified as potential pollutant sources. While initial observations of non-compliance may result in 'educational' type enforcement, repeated non-compliance will result in more severe forms of enforcement, such as monetary penalties, stop work orders or permit revocation. Regional Board staff audits of permittees' storm water programs during the third term permit found that a large percentage of the permittees had characterized inventories of construction, industrial and commercial facilities within each permittee's respective jurisdiction. However, upon review of each permittees inventory and inspection data, Regional Board staff noted that criteria outlined within the third term permit regarding program element criteria yielded a wide range of interpretation between permittees. Therefore, more prescriptive requirements within this element of the permit are included in the fourth term permit. The fourth term permit has also added a residential program element to be implemented by the permittees. This element improves upon the existing requirements within the third term permit, by adding specific criteria associated with developing a more successful means of reducing the discharge of pollutants from residential areas into the MS4 to the maximum extent practicable.

8. NEW DEVELOPMENT

During the third term permit, the permittees developed and revised existing new development guidelines. The permittees were required to implement these guidelines, with program implementation of post construction Water Quality Management Plan (WQMP) criteria standards. Additionally, this order requires the permittees to work towards the goal of restoring and preserving the natural hydrologic cycles in approving urban developments. To accomplish this goal, the permittees are required to implement low impact development principles through appropriate site design and source control BMPs. Recent studies have indicated that low impact development¹⁰ (LID) is one of the most effective ways to minimize any adverse impacts on storm water runoff quality and quantity resulting from urban developments. The Southern California Monitoring Coalition (SMC), including project lead agency, the San Bernardino County Flood Control District, in collaboration with SMC member, Southern California Coastal Water Research Project (SCCWRP) and the California Storm Water Quality Association (CASQA), is developing a Low Impact Development Manual for Southern California with funding from the State Water Resources Control Board. This manual will be

¹⁰ Low impact development is an approach to land development (or re-development) that works with nature to manage storm water as close to its source as possible by using structural and non-structural best management practices to reduce environmental impacts.

incorporated into the CASQA BMP Handbooks. The permittees are encouraged to utilize the manual as a resource for proper LID design and implementation techniques. In order to avoid becoming a source of nuisance, a source of mobilization for existing subterranean contaminants and/or a source of habitat for vectors, LID infiltration BMPs must be properly designed and subsequently maintained.

The proposed order also includes a requirement to infiltrate, harvest and re-use, evapotranspire or capture the volume of runoff produced from a 24-hour, 85th percentile storm event (design capture volume) for new and re-development projects. It also recognizes that certain soil and groundwater conditions, as well as other site conditions might preclude a particular site from achieving onsite retention and/or treatment of the design capture volume and includes alternatives and in-lieu programs.

Post construction activities conducted at properties that have been developed for commercial or industrial use may substantially increase the risk of post construction pollutants being generated from the developed site. Therefore, the WQMP threshold criteria priority development projects in the proposed order have been redefined from those of third term permit. Third term permit thresholds currently require the development and implementation of post construction WQMP for non-residential commercial/industrial construction projects, where the combined impervious surface area of the project is equal to or greater than 100,000 square feet. WQMP requirement thresholds for residential projects require a WQMP to be prepared when subdivision projects include 10 lots and units or more. Proposed fourth term permit threshold requirements for WQMP development and implementation have become standardized for commercial/industrial, as well as residential construction projects, where the combined impervious surface area of the project is equal to or greater than 10,000 square feet. The aforementioned criteria were redefined in order to adequately address potential pollutant sources, which may exist at properties which undergo development for commercial and industrial uses. Other criteria, which constitute a priority development project have carried over from third term permit to the proposed order.

9. SANITARY SEWER OVERFLOWS, SEPTIC SYSTEM FAILURES AND PORTABLE TOILET DISCHARGES

The third term permit required the permittees to investigate adverse impacts on urban runoff quality from leaking septic systems and portable toilets. The information provided by the permittees indicates that leaking or failing septic systems are not significant problems in Orange County as most areas of the County are sewered. A number of beach closures in Orange County have been due to spills, overflows, and leaks from the sanitary sewer lines. To address these concerns, waste discharge requirements (SSO order) for local sanitary sewer agencies were adopted by the Regional Board. Subsequently, the State Board adopted an SSO order, Water Quality Order No. 2006-0003, to address this problem on a statewide basis. The Regional Board SSO order has since been rescinded. The permittees are required to comply with the statewide SSO order.

10. MONITORING REQUIREMENTS

During the first term permit and part of the second term permit, the permittees conducted extensive monitoring of the storm water flows, receiving water quality and sediment quality. These early programs focused on identifying pollutants, estimating pollutant loads, tracking compliance with water quality objectives, and identifying sources of pollutants. The Orange County monitoring program, like other monitoring programs nationwide, has established that there is a high degree of uncertainty in the quality of storm water runoff and that there are significant variations in the quality of urban runoff spatially and temporally. However, most of the monitoring programs to date have indicated that there a number of pollutants in urban storm water runoff. Only in a few cases has a definite link between pollutants in urban runoff and beneficial use impairment been established.

In 1999, the permittees re-evaluated their monitoring program and proposed a revised monitoring program. The goals of the 1999 Water Quality Monitoring Program were:

- a. To determine the role of urban runoff in beneficial use impairment;
- b. To collect technical information to develop an effective urban storm water management plan; and
- c. To determine the effectiveness of a number of BMPs, also as an aid to the overall urban storm water management plan.

To accomplish these goals, the monitoring program focused on three areas:

- a. Areas where constituent concentrations are substantially above system-wide averages. These areas were referred to as "warm spots" and the designation is based on monitoring data from prior years.
- b. Areas of Critical Aquatic Resources (sites with important aquatic resources).
- c. Sub-watersheds where certain BMPs have been installed to study their effectiveness.

Based on the results of this monitoring program and the requirements specified in the third term permit and based on guidance provided in "The Model Monitoring Program for Southern California"¹¹, a revised monitoring program was submitted (2003 Monitoring Program).

The permittees also participate in a number of other regional monitoring programs such as those conducted by the Southern California Coastal Water Research Project and the California Regional Marine Monitoring Program.

The permittees are encouraged to continue their participation in regional and watershed-wide monitoring programs. By July 1, 2003, the permittees were required to re-evaluate their Water Quality Monitoring Program and submit a revised plan for approval. In February 2003, a revised plan was developed and final approval was given by the Executive Officer in July 2005. The revised plan includes the following monitoring elements: Mass Emissions, Estuary/Wetlands, Water Column Toxicity, Bacteriological/Pathogen, Bioassessment, Reconnaissance, Land Use Correlation, and TMDL/303(d) Listed Waterbodies.

¹¹ The Model Monitoring Program for Municipal

X. WATER QUALITY BENEFITS/COST ANALYSIS/FISCAL ANALYSIS

There are direct and indirect benefits from clean beaches, clean water, and a clean environment. It is difficult to assign a dollar value to the benefits the public derives from fishable and swimmable waters. In 1972, at the start of the NPDES program, only 1/3 of the US waters were swimmable and fishable. In 2001, 2/3 of the US waters meets these criteria. In the 2008, *Money* magazine survey of the "Best Places to Live", clean water and air ranked as the most important factors in choosing a place to live. Thus, environmental quality has a definite link to property values. Clean beaches and other water recreational facilities also attract tourists. According to the Orange County 2006 Community Indicators Project, it is estimated that on average, an out-of-county visitor spent an average of \$107.00 per day in 2004. Huntington Beach's 8.5-mile shoreline attracts 10 million visitors a year¹². During the summer of 1999 and 2000 when the beaches were closed to water contact recreation, the beach communities reported multi-million-dollar losses in tourist revenues.

The true magnitude of the urban runoff problem is still elusive and any reliable cost estimate for cleaning up urban runoff would be premature. For urban storm water runoff, end-of-pipe treatments are cost prohibitive and are not generally considered as a technologically feasible option. Over the last decade, the permittees have attempted to define the problem and implemented best management practices by implementing regional BMPs to combat the problem. The costs incurred by the permittees in implementing these programs and policies can be divided into three broad categories (the costs indicated below are for the entire Orange County storm water program):

¹² Los Angeles Times, May 9, 2001

1. Shared costs: These are costs that fund activities performed mostly by the principal permittee under the Implementation Agreement. These activities include overall storm water program coordination; intergovernmental agreements; representation at the Storm Water Quality Task Force, Regional Board/State Board meetings and other public forums; preparation and submittal of compliance reports and other reports required under the NPDES permits and Water Code Section 13267, budget and other program documentation; coordination of consultant studies, co-permittee meetings; and training seminars, water quality monitoring, and Countywide public education and outreach. Shared costs have increased from \$0.81M at the inception of the Orange County Stormwater Program to \$4.8M in 2006-7.
2. Individual Costs for DAMP Implementation: These are costs incurred by each permittee for implementing the BMPs (drainage facility inspections for illicit connections, drain inlet/catchbasin stenciling, public education, etc.) included in the DAMP. A number of programs and policies for non-point and storm water pollution controls existed prior to the urban storm water runoff NPDES program. However, the DAMP that was developed and implemented in response to the urban storm water runoff NPDES program required additional programs and policies for pollution control. These costs are attributable to DAMP implementation. In 2006/07, the Permittees determined their total Individual Costs to be \$82.2M.

In addition to these expenditures, volunteer efforts (such as the annual "Beach and Innercoastal Watershed Cleanup Day", etc.) also contributed to the urban runoff pollution control efforts.

The permittees identified the following funding sources (2006/07):

<i>FUNDING SOURCE</i>	<i>PERCENTAGE</i>
General Funds	11.8%
Gas Taxes	1.3%
Grants	30%
Sanitation Fees	31.3%
Time & Materials Ordinance & Permit Fees	0.6%
Special District Funds	24.3%
Other Sources	0.2%

XI. ANTIDegradation ANALYSIS

The Regional Board has considered whether a complete antidegradation analysis, pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, is required for these storm water discharges. The Regional Board finds that the pollutant loading rates to the receiving waters will be reduced with the implementation of the requirements in this order. As a result, the quality of storm water discharges and receiving waters will be improved. Since this order will not result in a lowering of water quality, a complete antidegradation analysis is not necessary, consistent with the federal and state antidegradation requirements.

XII. PUBLIC WORKSHOP

The Regional Board recognizes the significance of Orange County's Storm Water/Urban Runoff Management Program and will conduct, participate, and/or assist with any workshop

during the term of this order to promote and discuss the progress of the storm water management program. The details of the workshop will be posted on the Regional Board's website, published in local newspapers and mailed to interested parties. Persons wishing to be included in the mailing list for any of the items related to this order may register their e-mail address and/or mailing address with the Regional Board office at the address given below.

XIII. PUBLIC HEARING

The Regional Board opened a public hearing regarding the proposed waste discharge requirements on Friday, November 21, 2008 at 9:30 a.m. at the City Council Chambers, City of Yorba Linda. The public hearing was continued on Friday, January 18, 2002 at 9:00 a.m. at the City Council Chambers, City of Santa Ana, at which time Order No. R8-2002-0010 was adopted.

XIV. INFORMATION AND COPYING

Persons wishing further information may write to the above address or call Marc Brown at (951) 321-4584. Copies of the application, proposed waste discharge requirements, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying by appointment scheduled between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday (excluding holidays).

XV. REGISTER OF INTERESTED PERSONS

Any person interested in a particular application or group of applications may leave his/her e-mail and/or mailing address and phone number as part of the file for an application. Copies of tentative waste discharge requirements will be mailed to all interested parties.

In addition to the permittees, comments were solicited from the following agencies and/or persons:

U. S. Environmental Protection Agency – Eugene Bromley (W-5-1)
US Army District, Los Angeles, Corps of Engineers - Permits Section
NOAA, National Marine Fisheries Service
US Fish and Wildlife Service - Carlsbad
State Water Resources Control Board – David Rice, Office of the Chief Counsel
State Water Resources Control Board – Bruce Fujimoto, Division of Water Quality
State Department of Water Resources - Glendale
California Regional Water Quality Control Board, North Coast Region (1) – Executive Officer
California Regional Water Quality Control Board, San Francisco Bay Region (2) – Executive Officer
California Regional Water Quality Control Board, Central Coast Region (3) – Executive Officer
California Regional Water Quality Control Board, Los Angeles Region (4) – Tracy Egoscue
California Regional Water Quality Control Board, Central Valley Region (5S) – Executive Officer
California Regional Water Quality Control Board, Central Valley Region (5R), Redding - AEO
California Regional Water Quality Control Board, Central Valley Region (5F), Fresno – AEO
California Regional Water Quality Control Board, Lahontan Region (6SLT), South Lake Tahoe – Executive Officer
California Regional Water Quality Control Board, Lahontan Region (6V), Victorville – AEO
California Regional Water Quality Control Board, Colorado River Basin Region (7) – Robert Purdue
California Regional Water Quality Control Board, San Diego Region (9) – John Robertus
State Department of Fish and Game - Long Beach
State Department of Health Services - Santa Ana
State Department of Parks and Recreation –
Orange County Health Care Agency – Larry Honeybourne
South Coast Air Quality Management District, Diamond Bar -
Caltrans, District 12, Santa Ana – Grace Pina-Garrett
Southern Pacific Railroad
Atchison, Topeka & Santa Fe Railway Company
Seal Beach Naval Weapons Station
Seal Beach Naval Reserve Center, Los Alamitos
U. S. Marine Corps Air Station, El Toro -
National Forest Service
URS/Greiner - Bob Collacott
The Irvine Company - Sat Tamaribuchi
Building Industry Association – Mark Grey
Latham & Watkins – Paul Singarella
Best, Best, and Krieger –

Southern California Association of Governments, Los Angeles - General Manager

Universities and Colleges (Chancellor)

University of California, Irvine
California State University, Fullerton
Chapman College
Coastline College
Cypress College
Fullerton College
Irvine Valley College
Golden West College
Orange Coast College
Rancho Santiago College

School Districts (Superintendent)

Anaheim Elementary School District
Anaheim Union High School District
Brea-Olinda Unified School District
Buena Park Joint Union High School District
Centralia Elementary School District
Cypress Elementary School District
Fountain Valley Union High School District
Fullerton Elementary School District
Fullerton Joint Union High School District
Garden Grove Unified School District
Huntington Beach Elementary School District
Huntington Beach Union High School District
Irvine Unified Union High School District
La Habra Joint Union High School District
Los Alamitos Unified School District
Lowell Joint Union High School District
Magnolia Elementary School District
Newport-Mesa Unified School District
Ocean View Union High School District
Orange Unified School District
Placentia Unified School District
Santa Ana Unified School District
Savanna Union High School District
Tustin Unified School District
Westminster Union High School District
Yorba Linda Joint Union High School District

Hospitals (Administrator)

Anaheim General Hospital
Brea Community Hospital
Chapman General Hospital, Orange
Children's Hospital of Orange County, Orange
Coastal Communities Hospital, Santa Ana
Fairview Hospital

FHP Hospital, Fountain Valley
Fountain Valley Regional Hospital and Medical Center
Hoag Hospital, Newport Beach
Kaiser Foundation Hospital, Anaheim
Orange County Community Hospital, Buena Park
Pacifica Community Hospital, Huntington Beach
Placentia Linda Community Hospital
Santa Ana Hospital and Medical Center
St. Joseph's Hospital, Orange
U.C. Irvine Medical Center
Vencor Hospital of Orange County, Westminster
Whittier Hospital and Medical Center, Buena Park

Environmental Organizations

Lawyers for Clean Water – Daniel Cooper
Orange County Coastkeeper – Garry Brown
Defend the Bay – Bob Caustin
Sierra Club, Orange County Chapter
Sierra Club, Los Angeles Chapter - General Manager
Natural Resources Defense Council (NRDC) – David Beckman
Cousteau Society
Amigos De Bolsa Chica
Audobon Sea & Sage Chapter
Huntington Beach Wetlands Conservancy
Surfrider Foundation- Nancy Gardner

Newspapers

Orange County Register – Pat Brennan
Los Angeles Times –
Press Enterprise –
Daily Pilot – Paul Clinton

Major Water/Wastewater Agencies

Santa Ana Watershed Project Authority – Celeste Cantu
Irvine Ranch Water District – General Manager
Los Alisos Water District - General Manager
El Toro Water District - General Manager
San Bernardino County Flood Control District - Naresh Varma
Riverside County Flood Control & Water Conservation District – Steve Stump/Mark

Wills

L.A. County Department of Public Works - Gary Hildebrand
Orange County Sanitation Districts - Robert Ghirelli
Orange County Water District – General Manager
Metropolitan Water District - Ed Mean

Attachment 41

SECTION 9, EXISTING DEVELOPMENT

9.2.1.3 Inventory Database Protocols and Maintenance

The Permittee will be inspecting commercial/industrial facilities at the frequencies specified in Section 9.2.4 of this Model Program. The inspections provide current information on commercial/industrial facilities that is used to annually update the inventory database and map of commercial/industrial facilities. Information that should be collected during the inspection and included in the inventory database includes:

<u>Characteristic or Criteria</u>	<u>Information Collected or Verified</u>
<i>Business Name</i>	Business Name
<i>Physical Address Information</i>	Street Number, Street Direction, Street Name, Street Suffix, City or Unincorporated Area, Zip Code, Business Phone Number, Business Fax Number, email address, APN.
<i>Mailing Address Information</i>	Street Number, Direction, Street Name, Street Suffix, Suite Number/Letter, City or Unincorporated Area, Zip.
<i>Business Contact Name</i>	Full Name of Owner, Operator, Manager, etc.
<i>Emergency Contact</i>	24 hour Emergency Contact Phone Number
<i>Lot Size</i>	Total Square Feet of Lot (or if Multi-Tenant Lot: Enter Total Square Feet of Business).
<i>SIC Code</i>	SIC Code 1 and Other Pertinent SIC Codes if Applicable.
<i>Industrial-Specific Info</i>	WDID Number (Statewide Industrial Permit), Is Facility Subject to SARA Sect. 313, Title III?
<i>Commercial-Specific Info</i>	Description of Commercial Activity
<i>Watershed</i>	The hydrologic unit within the Permittee's jurisdiction where the facility resides, Longitude and Latitude.
<i>GIS Information (optional)</i>	Latitude, Longitude, etc.
<i>Local Licensing/Permits</i>	Business License Number, Special Permits, etc.
<i>Potential pollutants</i>	Outcome of Step 3
<i>Adjacent to and/or Discharge to ESA/ASBS</i>	Outcome of Step 4
<i>Pollutants of concern into an ESA</i>	Outcome of Step 4 (SDRWQCB only)
<i>Comments/Notes</i>	

SECTION 9, EXISTING DEVELOPMENT

9.2.2 Prioritization for Inspection

9.2.2.1 Introduction

This section outlines the procedures for prioritizing commercial/industrial facilities for inspection frequency, based on the threat to water quality. Potential threats to water quality at each commercial/industrial facility can be determined by evaluating a variety of site-specific factors according to the criteria outlined below. Priorities may be high, medium or low.

The prioritization processes for commercial and industrial facilities are discussed separately in this section. Although the processes are similar, specific permit requirements necessitate that commercial and industrial facilities be prioritized separately.

9.2.2.2 Prioritization of Industrial Facilities

Prioritization involves two phases:

- Initially classifying a facility as being a high, medium or low priority for inspection based on site information; and
- Subsequently confirming or reclassifying the facility based on inspections, field observations and additional information.

The first phase can be accomplished administratively using the data provided in the inventory of industrial facilities. The latter phase is completed following the initial inspection of each industrial facility.

Initial Prioritization

The following industrial facilities are mandatory high priority facilities:

San Diego RWQCB Jurisdiction

- Facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).
- Facilities which are tributary to a Clean Water Act Section 303(d) impaired water body, where the facility generates pollutants for which the water body is impaired.
- Facilities within or directly adjacent to (i.e. within 200 feet) or discharging directly to a receiving water within an Environmentally Sensitive Area (ESA).
- Facilities subject to the state Industrial General Permit (excluding those facilities that have been approved for a No Exposure Certification).
- All other facilities that the Permittee determines are contributing significant pollutant loading to its MS4, regardless of whether such facilities are covered under the statewide General Industrial Permit or other NPDES permits.

SECTION 9, EXISTING DEVELOPMENT

Santa Ana RWQCB Jurisdiction

- Facilities subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).
- Facilities which are tributary to or directly adjacent to (i.e. within 500 feet) an area defined by the Ocean Plan as an Area of Special Biological Significance (ASBS).
- Facilities subject to the state Industrial General Permit.
- Facilities with a high potential for, or history of, unauthorized, non-storm water discharges.

In addition to the industrial facilities noted above, the Permittee should review other facilities to determine whether they should be high priority sites. In some cases, the Permittees may not have all the required information necessary to properly evaluate a facility for prioritization. In this case, a preliminary site visit may be warranted such that the Permittee can collect the needed information and verify the prioritization.

A ranking system using the following criteria is used to prioritize the sites:

- Type of activity (SIC code)
- Materials used in the industrial process
- Type(s) and quantities of waste products generated
- Potential for discharge of pollutants
- Non-stormwater discharges
- Size of the facility (% impervious surface)
- Proximity to a receiving water bodies

The ranking criteria and scores have been provided in **Table 9-7** below. The recommended prioritization may be adjusted within a LIP to fit the needs of individual Permittees. The sum from each line item is the total ranking for a specific Industrial Facility. If the total ranking is equal to or greater than 25, then a high priority is assigned. If the total ranking is less than 25 but equal to or greater than 15, then a medium priority is assigned. If the total ranking is less than 15, then a low priority is assigned. Each prioritized facility should be inspected at a minimum in accordance with the inspection schedule presented below in **Section 9.2.4**.

Field Verification of Prioritization

After initial prioritization, the Permittee should perform facility inspections; subsequently, each site is re-evaluated to determine whether the initial prioritization was adequate. Facilities possessing a No Exposure Certification (NEC) may be eligible for a lesser priority classification. Permittees should contact the RWQCB to obtain information regarding which facilities have NECs.

SECTION 9, EXISTING DEVELOPMENT

9.2.2.3 Prioritization of Commercial Facilities

San Diego RWQCB Jurisdiction

Permittees within the San Diego RWQCB jurisdiction are NOT required to prioritize commercial facilities. However, they are required to inventory a set of pre-determined high priority commercial facilities/activities. See Table 9-2 for a list of those commercial facilities/activities that are automatically considered "high priority" within the San Diego RWQCB jurisdiction. However, if field observations, monitoring data or complaints indicate that another commercial site/source may contribute a significant pollutant load, the site should be inspected and ranked in accordance with the prioritization scheme outlined below, or as adjusted within an individual LIP.

Santa Ana RWQCB Jurisdiction

Permittees within the Santa Ana RWQCB jurisdiction are required to prioritize commercial facilities. See Table 9-3 for a list of those commercial facilities/activities that must be inventoried and prioritized within the Santa Ana RWQCB jurisdiction. However, these are NOT automatically considered "high priority".

Prioritization for commercial facilities in the Santa Ana RWQCB jurisdiction involves two phases:

- Initially classifying a facility as being a high, medium or low priority for inspection based on site information; and
- Subsequently confirming or reclassifying the facility based on inspections, field observations and additional information.

Initial Prioritization

The first phase can be accomplished administratively using the data provided in the inventory of commercial/industrial facilities. The latter phase will be completed following the initial inspection of each commercial/industrial facility.

Santa Ana RWQCB Permittees must consider the following site attributes to evaluate the potential threat to water quality and subsequent inspection priority for commercial facilities:

- Type of Commercial Activity
- Magnitude of Commercial Activity
- Location of Commercial Activity
- Potential for Discharge of Pollutants to the MS4
- History of Un-Authorized Stormwater Discharges

The ranking criteria and scores have been provided in Table 9-8 below. The recommended prioritization may be adjusted within a LIP to fit the needs of individual Permittees. The sum from each line item is the total ranking for a specific Commercial

SECTION 9, EXISTING DEVELOPMENT

facility. If the total ranking is equal to or greater than 20, then a high priority is assigned. If the total ranking is less than 20 but equal to or greater than 10, then a medium priority is assigned. If the total ranking is less than 10, then a low priority is assigned. Each prioritized facility should be inspected at a minimum in accordance with the inspection schedule presented below in Section 9.2.4.1.

Field Verification of Prioritization

Initially, the Permittees may not have all the required information necessary to properly evaluate a facility for prioritization. In this case, a preliminary site visit may be warranted such that the Permittee can collect the needed information and verify the prioritization. Facilities possessing a No Exposure Certification (NEC) may be eligible for a lesser priority classification. An NEC designation must be accomplished through the jurisdictional regional board and is awarded if the facility meets the No Exposure criterion.

SECTION 9, EXISTING DEVELOPMENT

9.5.3.1 Prioritization Procedure for Implementation

The creation of geographic information system (GIS) maps identifying common interest developments characterizes the prioritization procedure for CIAs/HOAs. These maps are used in conjunction with the residential overlays developed as part of the Residential Program (Section 9.4). The County has developed GIS maps that identify ESAs and 303(d)-listed water bodies.

Each Permittee should incorporate GIS based overlays of CIA/HOA areas with watershed boundaries. Locating the CIA/HOA areas within a particular watershed will allow for assessment of proximity to 303(d) listed water bodies in that watershed. Refer to Table 9-4 for a listing of major watersheds within the County of Orange and to Figure 9-3 for the map of these watersheds.

The threat prioritization procedure for CIA/HOA areas can be summarized as follows:

STEP 1: Locate all CIA/HOA areas on a GIS overlay (may be accomplished as part of the Existing Residential Program JURMP) that shows watershed boundaries.

STEP 2: Overlay County-generated GIS maps that identify ESAs and 303(d) listed water bodies.

STEP 3: Identify receiving waters for all CIAs/HOAs.

STEP 4: Determine if a CIA/HOA area is considered high priority through answering the following questions:

- Is the CIA/HOA directly tributary to a 303(d) listed water body? Water bodies in Orange County that are listed on the 2002 303(d) list of impaired water bodies are shown in Table 9-6.

If YES, then CIA/HOA is high priority.

- Does the CIA/HOA discharge directly to an ESA? Comparison of drainage facility maps with an ESA map will allow determination of discharge areas.

If YES, then CIA/HOA is high priority.

- Does the CIA/HOA contribute significant pollutant loads to the storm drain system via evaluation of IDIC and receiving water monitoring data?

Significant pollutant load should be interpreted to mean any discharge that causes or contributes to a violation of a receiving water quality standard. The results from the ID/IC and Receiving Water Monitoring programs should be used to determine if significant pollutant loads occur as a result of CIA/HOA activities or discharges from residential areas. Results from dry weather monitoring may be used in an effort to isolate additional CIA/HOA activities and areas for follow-up investigation. Any residential activity or area found to cause or contribute to a water quality objective violation should be categorized as high priority.

If YES, then CIA/HOA is high priority.

SECTION 9, EXISTING DEVELOPMENT

- Is the CIA/HOA responsible for street and storm drain maintenance?

If YES, then CIA/HOA is high priority.

STEP 5: Implement best management practices as described in **Section 9.5.4**.

Note that Steps 1 - 4 occur throughout a Permittee's jurisdiction, whereas Step 5 is reserved for those CIA/HOA areas within that jurisdiction that are considered high priority.

9.5.3.2 Ongoing Determinations

The Receiving Water Monitoring program established in compliance with the San Diego Permit, Attachment B, should be used as one facet of determining the effectiveness of the Common Interest Area/Homeowners Associations Activities JURMP, and if CIA/HOA activities and areas are in compliance with the Permit Orders and DAMP commitments.

Permittees should ensure that the dry weather monitoring program developed as part of Illegal Discharge/Illicit Connection Program (ID/IC), **Section 10**, is of sufficient scope (i.e., with samples taken at outfalls exclusively serving CIAs/HOAs) to aid in assessment of Permittee efforts and actions as part of the CIA/HOA Program. Coordination between the CIA/HOA program and the ID/IC program is necessary to determine permit compliance and the need for further investigation.

9.5.4 Best Management Practices Implementation

This section presents the best management practices and procedures that Permittees can provide to CIAs/HOAs in order to protect receiving water quality.

CIA/HOA areas can be divided in terms of activities of concern based on those common interest developments that have publicly-owned and maintained streets and storm drains and those in which these facilities are owned and maintained by the maintenance association. Likewise, the best management practice programs for publicly-owned and maintained streets and storm drain systems within CIAs/HOAs differ from those used in CIA/HOA areas that have privately owned and maintained streets and storm drain systems.

The following sections describe a minimum set of BMPs appropriate for both types of common interest developments.

CIAs/HOAs with Publicly-owned and Maintained Streets and Storm Drains

CIAs/HOAs with publicly-owned and maintained streets and storm drains operate similarly to more traditional residential areas within a Permittee's jurisdiction, in that activities such as street sweeping, refuse removal and drainage and utility operation and maintenance are generally performed by the Permittee. Therefore, the BMPs appropriate to these types of CIAs/HOAs will not include practices for such typically Permittee-performed activities as street sweeping. BMP fact sheets, as identified in

Attachment 42



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

GJ+ 3/17
VES

HAS 3/23
WKS 4/11/00 - copy
Copies to TBM mail

FEB 28 2000

Mr. Walt Pettit
Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95814-0100

Dear Mr. Pettit:

Thank you for submitting the total maximum daily loads (TMDLs) and associated implementation plans to address fecal coliform bacteria impairments of Upper Newport Bay and Lower Newport Bay, California. The submission to EPA is dated January 31, 2000. Based on our review, we have concluded that the TMDLs adequately address the pollutant of concern and, upon implementation, will result in attainment of water quality standards. These TMDLs include allocations as needed, take into consideration seasonal variations and critical conditions, and provide an adequate margin of safety. The State has provided adequate opportunities for public review and comment on the TMDLs. All required elements are adequately addressed; therefore, the TMDLs are hereby approved.

We also hereby approve the inclusion of the TMDLs and associated implementation measures in the Basin Plan pursuant to Clean Water Act Section 303(e) and 40 CFR 130.6(c) and (e). The TMDL and implementation plan require attainment of the TMDL and associated allocations as soon as possible or no later than 14-20 years. We note that the implementation plan provides substantial detail concerning studies and monitoring to refine the TMDL, and less detail concerning specific implementation practices to implement the TMDL. In order to ensure that the TMDLs and associated allocations are implemented as soon as possible, we request that the Regional Board describe more specific implementation measures (1) when the NPDES permits for which WLAs are established are next reissued, and (2) when the TMDL implementation plan itself is next reviewed or revised pursuant to the TMDL review and implementation schedule.

The attached review discusses the basis for this approval decision in greater detail. We appreciate the State's work to complete and adopt these TMDLs and look forward to our continuing partnership in TMDL development. If you have questions concerning this approval, please call me at (415) 744-1860 or David Smith at (415) 744-2012.

Sincerely,

Alexis Strauss
Alexis Strauss
Director
Water Division

enclosure

cc: Gerard Thibault, Santa Ana RWQCB

**Staff Report Supporting Approval of TMDLs:
Fecal Coliform Bacteria- Upper Newport Bay and Lower Newport Bay, CA
February 17, 2000**

Background

Pursuant to a consent decree (*Defend the Bay v. Marcus*, N. D. California No. C-97-3997 MMC), U.S. EPA is required to ensure that TMDLs are approved or established for bacteria for Upper and Lower Newport Bay, California by April 15, 2000. The Santa Ana Regional Water Quality Control Board (Regional Board) developed TMDLs for fecal coliform bacteria for Upper and Lower Newport Bay. The State of California adopted these TMDLs and submitted them for EPA approval in a submittal package dated January 31, 2000. By approving these State-adopted TMDLs, EPA's consent decree requirements are being met.

The implementation plan for each of the TMDLs is contained in the State's basin plan amendment submitted for EPA review. EPA is reviewing the basin plan amendment and implementation measures for the TMDL is submittal pursuant to the provisions of 40 CFR 130.6, based on the requirements of Clean Water Act Section 303(e). EPA is certifying that the implementation plan is consistent with the California water quality management plan and the requirements of the federal regulations at 40 CFR 130.6.

TMDL Review

Pursuant to Clean Water Act Section 303(d) and 40 CFR 130.2 and 130.7, EPA reviewed the State TMDL submittal package to ensure that all required TMDL elements have been adequately addressed. EPA's review is presented in the attached checklist for Upper and Lower Newport Bay, which documents EPA's findings that all required elements and an adequate level of technical justification for each element are included in the State TMDL submission. Therefore, the TMDLs should be approved.

TMDL Checklist

State: California

Waterbodies: Upper Newport Bay, Lower Newport Bay

Pollutant(s): fecal coliform bacteria

Date of State Submission: January 31, 2000

Date Received By EPA: February 3, 2000

EPA Reviewer: David Smith

Review Criteria	Comments
1. Submittal Letter: State submittal letter indicates final TMDL(s) for specific water(s)/pollutant(s) were adopted by state and submitted to EPA for approval under 303(d).	Submittal letter, p. 1
2. Water Quality Standards Attainment: TMDL and associated allocations are set at levels adequate to result in attainment of applicable water quality standards.	Regional Board resolution 99-10, p.2; Attachment to resolution 99-10, p. 3. TMDL is expected to result attainment of applicable water quality standards within 14 years (for the water contact recreation standards) or 20 years (for shellfish standards).
3. Numeric Target(s): Submission describes applicable water quality standards, including beneficial uses, applicable numeric and/or narrative criteria. Numeric water quality target(s) for TMDL identified, and adequate basis for target(s) as interpretation of water quality standards is provided.	TMDL Staff report dated November 24, 1998, p.5. TMDL applies both acute and chronic numeric standards for fecal coliform.
4. Source Analysis: Point, nonpoint, and background sources of pollutants of concern are described, including the magnitude and location of sources. Submittal demonstrates all significant sources have been considered.	TMDL Staff report dated November 24, 1998, pp. 28-36. TMDL identifies all likely sources and summarizes data describing bacteria levels associated with significant sources at different places in the watershed. Insufficient data were available to generate a specific source-by-source loading estimate; however, TMDL adequately accounts for bacteria loading uncertainty by setting TMDL and associated allocations equal to the applicable standards at all locations in Upper and Lower Newport Bay.
5. Allocations: Submittal identifies appropriate wasteload allocations for point sources and load allocations for nonpoint sources. If no point sources are present, wasteload allocations are zero. If no nonpoint sources are present, load allocations are zero.	Attachment to Resolution 99-10, table 5-9f (p. 5). TMDLs, WLAs and Las are expressed in terms of fecal coliform density. This is an appropriate way to express a bacteria TMDL because both human health and shell fish impacts associated with bacteria are a function of bacteria density in the water column rather than mass loading. This approach is also consistent with 40 CFR 130.2(i).
6. Link Between Numeric Target(s) and Pollutant(s) of Concern: Submittal describes relationship between numeric target(s) and identified pollutant sources. For each pollutant, describes analytical basis for conclusion that sum of wasteload allocations, load allocations, and margin of safety does not exceed the loading capacity of the receiving water(s).	TMDL Staff report dated November 24, 1998, pp. 36-40. By setting the TMDL equivalent to the numeric target and the applicable water quality standards, a direct and exact linkage exist.

<p>7. Margin of Safety: Submission describes explicit and/or implicit margin of safety for each pollutant.</p>	<p>Staff report dated November 24, 1998, pp. 40-41. TMDL provides implicit MOS by not accounting for likely bacteria dilution and dieoff prior to entry into Bay (e.g. likely dieoff due to exposure to sunlight), and after entry into Bay (e.g. due to exposure to salt water in the Bay). TMDL plan also provides rigorous monitoring and review plan and schedule, which provides an ongoing mechanism to adjust the TMDL if needed in the future.</p>
<p>8. Seasonal Variations and Critical Conditions: Submission describes method for accounting for seasonal variations and critical conditions in the TMDL(s)</p>	<p>Staff report dated November 24, 1998, pp. 41-42. TMDL accounts for seasonal variations and, in particular the critical warm weather period by setting the TMDL and allocations to meet WQS at all times and under all conditions. In addition, the implementation schedule calls for implementation of the TMDL to address the most important local beneficial use- warm weather body contact recreation- in the faster timeframe.</p>
<p>9. Public Participation: Submission documents provision of public notice and public comment opportunity; and explains how public comments were considered in the final TMDL(s).</p>	<p>The Regional Board public noticed the TMDL several times in a local newspaper of general distribution and held 4 public workshops and hearings to receive public comments. Regional Board responded to all written comments through responsiveness summaries included in the submittal package.. State Board also provided opportunities for public review and comment by sending notices of availability of the proposed TMDL to an extensive mailing list and by holding a public hearing to receive public comments. We understand that no additional comments were received by the State Board that were not addressed by the Regional Board.</p>
<p>10. Technical Analysis: Submission provides appropriate level of technical analysis supporting TMDL elements.</p>	<p>Staff report and responsiveness summaries provided detailed technical justifications for each TMDL element.</p>
<p style="text-align: center;">Note: The following criteria do not apply to all TMDLs, but must be applied in the situations noted.</p>	
<p>11. Monitoring Plan for TMDLs Under Phased Approach (where phased approach is used): TMDLs developed under phased approach identify implementation actions, monitoring plan and schedule for considering revisions to TMDL.</p>	<p>Submittal includes detailed schedule for implementation-related actions and monitoring and discusses implementation and monitoring approaches (pp. 6- 15). Staff report also discusses implementation and monitoring needs and plans in detail (pp.43-44).</p>

<p>12. Reasonable Assurances (for waters affected by both point and nonpoint sources): Where point source(s) receive less stringent wasteload allocations because nonpoint source reductions are expected and reflected in load allocations, implementation plan provides reasonable assurances that nonpoint implementation actions are sufficient to result in attainment of load allocations in a reasonable period of time. Reasonable assurances may be provided through use of regulatory, non-regulatory, or incentive based implementation mechanisms as appropriate.</p>	<p>Not applicable-- no WLAs were made less stringent based on expected nonpoint source controls.</p>
<p>Implementation Plan Review Criteria Pursuant to 40 CFR 130.6 and 303(e)</p>	
<p>13. Clear Implementation Plan: Submittal describes planned implementation actions or, where appropriate, specific process and schedule for determining future implementation actions . Plan is sufficient to implement all wasteload and load allocations in reasonable period of time. TMDL(s) and implementation measures are incorporated into the water quality management plan. Water quality management plan revisions are consistent with other existing provisions of the water quality management plan.</p>	<p>Attachment to Resolution 99-10 describes implementation plans in detail and notes that all sources for which WLAs are established are regulated either under NPDES permits or local regulatory mechanisms (pp. 6-15). Plan is sufficient to result in attainment of the TMDL and associated allocations within the scheduled timeframe. This finding is based on the rigorous actions to further characterize and identify control mechanisms for significant bacteria sources within the watershed are clearly scheduled for completion, and responsibility for each action is clearly assigned to one or more regulated entities. In addition, the NPDES permitting and local vessel waste discharge program provide a workable regulatory framework for ensuring compliance with WLAs. The TMDL requires compliance <u>as soon as possible</u>, but no later than 14-20 years from adoption, depending upon the applicable standard. This timeframe compels rapid action to comply with the TMDL, but properly recognizes that it will be technically difficult to control urban sources of bacteria discharges at levels which meet the stringent TMDL provisions. The approval letter should note that EPA expects the Regional Board to apply its best efforts to ensure that the TMDLs and associated allocations are implemented as soon as possible. In particular, the Regional Board should ensure that more specific implementation measures be described (1) when the NPDES permits for which WLAs are established are next revised or reissued, and (2) when the TMDL implementation plan itself is next reviewed/revised as scheduled in the implementation schedule provided with the submittal.</p>

Commission on State Mandates

Original List Date: 7/9/2010
Last Updated: 1/31/2011
List Print Date: 03/10/2011
Claim Number: 09-TC-03
Issue: Santa Ana Region Water Permit - Orange County

Mailing List

TO ALL PARTIES AND INTERESTED PARTIES:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.2.)

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COMMISSION ON STATE MANDATES

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**DECLARATION OF SERVICE BY EMAIL**

I, the undersigned, declare as follows:

I am a resident of the County of Solano 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 March 10, 2011, I served the:

Department of Finance Comments on Test Claim; and
State Water Resources Control Board Comments on Test Claim
Santa Ana Region Water Permit, 09-TC-03
California Regional Water Quality Control Board, Santa Ana Region,
Order No. R8-2009-0030
County of Orange, Orange County Flood Control District, Cities of Anaheim, Brea, Buena Park, Costa Mesa, Cypress, Fountain Valley, Fullerton, Huntington Beach, Irvine, Lake Forest, Newport Beach, Placentia, Seal Beach and Villa Park, 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 March 10, 2011 at Sacramento, California.


Heidi J. Palchik