

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.

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.

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.

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.

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 River<sup>1</sup>, 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,

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<sup>1</sup> 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.

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.

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 practices<sup>2</sup> (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.

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<sup>2</sup> Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency for the control of stormwater runoff pollution.

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.

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.

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 input<sup>3</sup> 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.

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<sup>3</sup> 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.

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 practicable<sup>4</sup> 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.

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<sup>4</sup> 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.

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.

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;

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.

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.

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.

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.

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

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:

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.

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 aforesated 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.

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.

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:

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 <sup>5</sup>
ii. Illegal Discharges - V.5.	01/31 of every year <sup>6</sup>
iii. Management Programs - VI.3.	07/31 of every year <sup>7</sup>
iv. Stormwater System Monitoring Program VII.4.	11/30 of every year <sup>8</sup>
v. Receiving Water Monitoring Program VIII.4.	11/30 of every year <sup>9</sup>
h. Compliance - Illegal Discharges	See Item V.6.

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<sup>5</sup> The first progress report is due on January 31, 1992.

<sup>6</sup> The first progress report is due on January 31, 1993.

<sup>7</sup> The first progress report is due on July 31, 1992.

<sup>8</sup> The first progress report is due on November 30, 1991.

<sup>9</sup> The first progress report is due on November 30, 1991.

XII. REPORTING - CONT'D

<u>TASK</u>	<u>COMPLIANCE REPORT DUE</u>
i. Fiscal Analysis - IX.	08/31 of every year <sup>10</sup>
j. Data Analysis - X.	01/31 of every year <sup>11</sup>
k. Program Analysis - XI.	03/31 of every year <sup>12</sup>

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.

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<sup>10</sup> The first annual fiscal analysis is due on August 31, 1991.

<sup>11</sup> The first data analysis is due on January 31, 1992.

<sup>12</sup> The first program analysis is due on March 31, 19

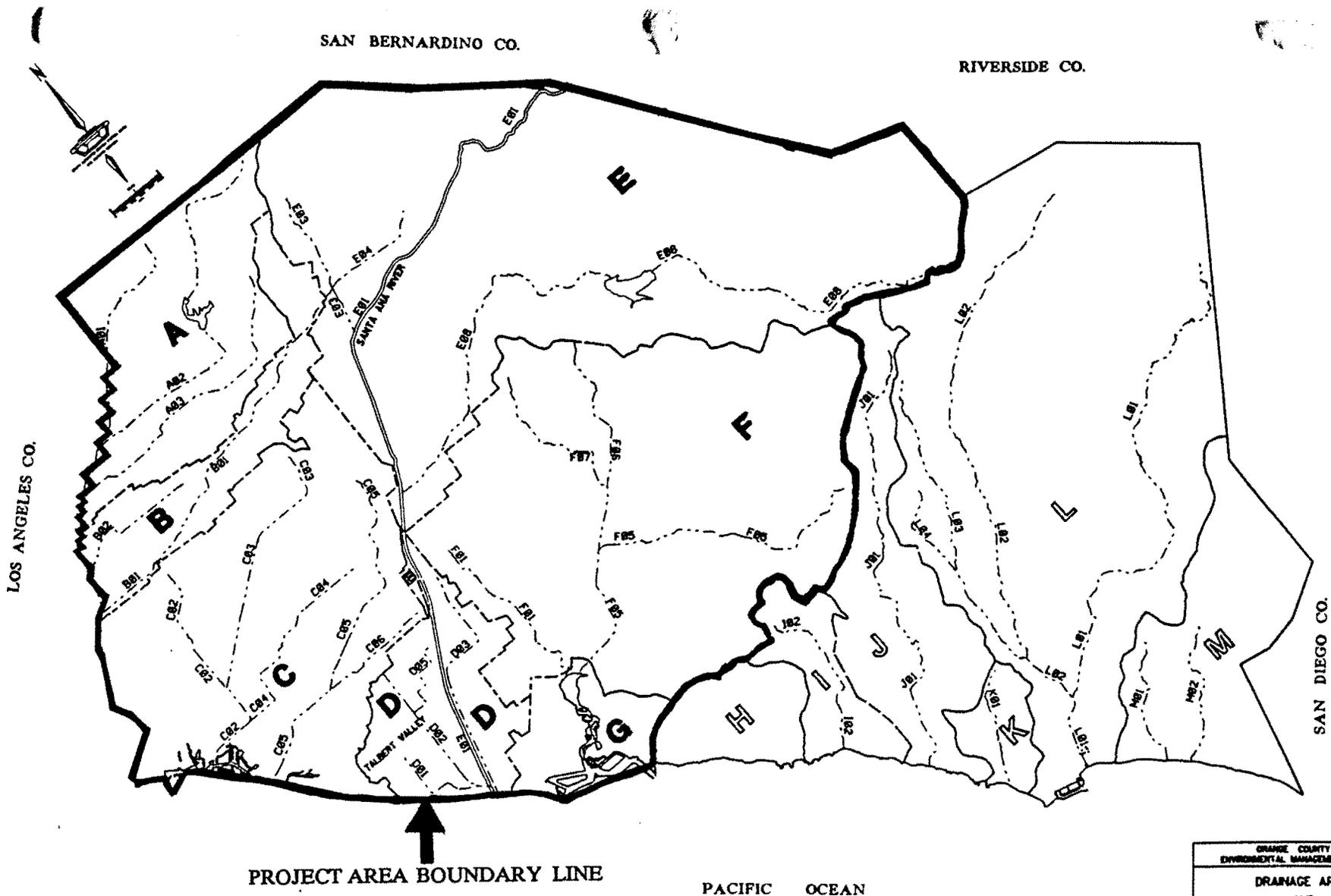
XIII. EXPIRATION AND RENEWAL - CONT'D

- 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





GRANDE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
DRAINAGE AREAS AND MAJOR REGIONAL FLOOD CONTROL FACILITIES	
NOVEMBER 1987	EXHIBIT 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"

RBSA\_28505

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 M	W A R M	C O L D	B I O L	W I L D	R A R E	S P W 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 <sup>1</sup>	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

2-5

+ Excepted from MUN by Reg. Bd. Res. 89-42

1 No access per agency with jurisdiction (U.S. Navy)

Order No. 90-71  
NPDES No. CA 8000180  
Attachment "E"

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, Bee Canyon Wash, Borrego Canyon Wash, Agua Chinon Wash, Laguna Canyon Wash, Rattlesnake Canyon Wash, Sand Canyon Wash

MUN	AGR	IND	PRO	GRV	NAV	POW	REC1	REC2	COM	WAR	COL	BIO	WIL	RAE	SPW	MAR	SHEL
							2	I									
+							X	I									
+	X			X			X	X		X			X				
X				X			X	X			X		X				
X				X			2	X			X		X				
I				I			I	I		I			I				
X				X			X	X			X		X				
+							2	X	X	X			X				
+				I			I	I		I			I				
+							X	X		X			X	X			
+				I			I	I		I			I				

+ Excepted 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

Order No. 90-71  
NPDES No. CA 8000180  
Attachment "E"

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	PROC	GW	NAV	POW	REC1	REC2	COMM	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			4	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				

+ 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

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.

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.

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),

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.

PERMIT REQUIREMENTS - CONT'D

The permit also requires development and implementation of management programs (best management practices<sup>1</sup>) 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.

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<sup>1</sup> Best Management Practices (BMPs) are water quality management practices that are maximized in efficiency and control of stormwater runoff pollution.

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.

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.